

URI SUSTAINABLE



SEAFOOD INITIATIVE

**The market for certified wood products:
What can the seafood sector learn from the applied research?**

by

Tarsila Seara¹ and Cathy A. Roheim²

¹URI Sustainable Seafood Fellow and Graduate Research Assistant, Department of
Marine Affairs, and

²Professor, Department of Environmental and Natural Resource Economics,

crw@uri.edu

University of Rhode Island, USA

July 2009

Funded by Rhode Island Sea Grant, under the URI Sustainable Seafood Initiative, and
by the Packard Foundation.



The market for certified wood products: What can the seafood sector learn from the applied research?

Introduction

Third-party forest certification was first introduced in the early 1990s as a market approach to deal with concerns of tropical deforestation and forest degradation (Aguilar and Vlosky 2007; Anderson and Hansen 2004). The mechanisms and goals of forestry certification are similar in nature to seafood eco-labeling, especially as it exclusively accounts for environmental concerns. There are a few different certification schemes that approach the environmental issues of forestry from different perspectives. One of the most widely adopted schemes is the Forest Stewardship Council (FSC).

The FSC was created in response to the Earth Summit of 1992 to address public concerns about deforestation and better forest management practices. The FSC has been implemented at a worldwide level and has the largest number of participants outside North America and Europe (Aguilar and Vlosky 2007). FSC certification, similar to Marine Stewardship Council (MSC) certification for seafood products, occurs through independent certification bodies, recognized by accreditation bodies contracted by the FSC. These certification bodies are evaluated and monitored to guarantee their proficiency and reliability, and they conduct assessments of forests business to meet a set of standards developed by the FSC (Morris and Dunne 2004). Both the FSC and MSC belong to the International Social and Environmental Accreditation and Labelling (ISEAL) Alliance.

Market-based environmental initiatives for better management practices of natural resources are often assumed to be associated with market benefits, in the form of price premiums, access to new markets, or other tangible benefits. Many often hope that these benefits can be quantified with a currency denominated value. The present report is a brief literature review with multiple objectives of: a) characterizing the market for certified forestry products; and b) discussing the debate over the existence of market benefits for such goods. Overall, the goal of this report is to

provide insights for the seafood industry, which has more recently launched in certification programs, through lessons which may be learned from the forestry sector.

Exclusively an environmental concern

Forestry and seafood certification programs have a very important common characteristic: they both deal with public “environmental only” concerns. The main goals of forest certification are to ensure access to environmentally sensitive wood product markets and to support sustainable forest management practices (Stevens *et al.* 1998). On the same line, the purpose of seafood certification is to recognize and reward fisheries that operate in a sustainable fashion through market-based incentives (Roheim, 2008; Gulbrandsen 2009).

It is very important to stress this “environmental only” concern characteristic of the labels in question when analyzing market benefits for these goods, in particularly price premiums, for consumers’ willingness to pay is influenced by a variety of different attributes of products (Roheim Wessells 2002). For this reason, a parallel between consumption of forestry and seafood certified products can be extremely pertinent for those interested in understanding the market for eco-labels. Demand and price premiums for organic food, for example, are tightly associated with consumers’ concerns for health issues as well as environmental attributes of the product. Although understanding the consumer willingness to pay for organic products may help understanding the market for labeled products, this does not translate as neatly the public’s behavior towards an exclusive environmental concern. Consumers’ behavior in purchasing ecolabelled forestry or seafood products stem from much more altruistic behavior.

What does the market for certified forestry products look like?

Different studies were conducted in the late 1990’s that assessed potential demand for forest-certified products in the U.S. The findings of such studies, regarding the percentage of people willing to pay a price premium and the level of premium are very mixed. Ozanne and Vlosky (1997) found that an average of 63% of people would be willing to pay a price premium for certified wood products, ranging from 4.4% to 18.7% depending upon the products’ attributes (a pencil versus a new home, for example). Koenig (1994) reports that 93% of respondents would prefer guarantee that their furniture comes from sustainably managed forests. Winterhalter and

Cassens (1993) also found that the majority of respondents (81%) would be willing to pay a price premium for certified wood products. On the other hand, a study conducted by Stevens *et al.* (1998) shows, based on manufacturers' perceptions on the market for certified wood products, that an average of only 20% of consumers would be potential purchasers of such products. Another study by Grönroos and Bowyer (1999) conducted on the market potential for certified a wide variety of wood products in new homes in Minneapolis/St. Paul and Chicago show that in both places the majority of people would not be willing to pay a price premium for these goods (76% and 64%, respectively). The latter three studies did not specify the amount that consumers were willing to pay for certified wood products.

It is important to highlight that the reason for such disparity can be caused by many different aspects potentially related to 1) the universe of people surveyed in the studies, 2) the methodology used and 3) the products' attributes. All the studies above deal with hypothetical (versus behavioral) willingness to pay, meaning that the people involved were not actually doing a purchase but were answering surveys depicting hypothetical situations¹. In this case, the studies capture that people would respond positively to the idea of environmentally friendly products, but it does not account for what people would actually do when they are revealing their actual preferences in market settings, i.e. spending their money.

In addition, these studies deal not only with different universes of people (random sample, manufacturers, recent new home purchasers, etc.) but with different types of products (pencils, compact disk racks, tables, houses, etc). This makes it very difficult to produce empirical evidence to support the existence of demand and willingness to pay a price premium for wood certified products. For example, Teisl *et al.* (2002) found that consumers would be more willing to consider purchasing eco-labeled forestry products if the products are low-priced and frequently-purchased products, such as paper, rather than high-priced less-frequently purchased items, such as furniture.

Moreover, purchase decisions are not always something to which a consumer gives a tremendous amount of thought to and the level of mental engagement in the consumption process is relative

¹ These studies are similar in approach to studies done of consumers' willingness to pay for eco-labeled seafood, e.g. Wessells, Johnston and Donath (1999), Johnston *et al.* (2001), Jaffry, *et al.* (2004), Johnston and Roheim (2006), and Fonner (2007). Similar caveats apply to the seafood studies as to the forestry studies.

to the personal relevance of the product being purchased. If the price difference between certified and non-certified products is not too great, especially for low-involvement products (e.g. a pencil), consumers may not invest the time and effort to make an informed decision. On the other hand, a large difference in price caused by a price premium could lead the consumer to reject the certified product (Anderson *et al.* 2005). The theory of “consumer involvement construct”² has several implications in the discussion over labeled products since the existence of price premiums is an important incentive leading producers to pursue certification. Costs of certification can be very high and market benefits must somehow outweigh these costs.

More recently, studies have discussed whether consumers are in general more willing to pay for convenience than for ideology and that in reality the market for “green” products is still very small (Fowler 2002; Anderson & Hansen 2004). Ozanne and Vlosky (2003) compared consumer’s perspectives on the market for certified wood between 1995 and 2000. The results show that over time there was little difference in the amount of labeled products purchased by U.S. consumers. In fact, the number of self-reported purchases declined slightly in 2000. Their survey specifically asked consumers if they understood the concept of certification in both the 1995 and in 2000. Although the understanding of the concept of certification increased over time, consumers in 2000 seemed more skeptical of whether such programs were indeed achieving their objectives of protecting the tropical forests, pointing out a potential broken information exchange between producers and consumers.

In spite of a comprehensive literature review, there is very little which documents that there are actual price premiums associated with the market for certified wood (Kollert and Lagan 2007). According to Stevens *et al.* (1998) the major driver of forestry certification is the possibility of increasing market share. One interesting remark in Anderson *et al.* (2005), a study which involved an experiment to compare the purchase rate between certified and non-certified wood pencils in a store, calls attention to the fact that sellers can be very sensitive to price premiums. Retailers participating in the study feared that the high prices on the labeled products could lead to a perception of high prices on the products in the store as a whole. This is important to consider when market incentives for certification are put in perspective.

² First developed by Krugman (1965), this concept is widely explored by the marketing literature.

Studies conducted in Europe and other developed nations such as Canada and New Zealand, suggest that, in general, the market for certified wood products in these countries follows a similar pattern of that exhibited in the U.S. (Biggsby and Ozanne 2002; Owari *et al.* 2006). Europe, particularly in its northern countries, is the major consumer of these products when compared to other countries in the world (Hrabovsky and Armstrong 2005). The existence of this European niche market acts as an incentive to many other countries in the world seeking the access to new markets. Owari *et al.* (2006) affirm that “as long as there is lack of financial incentive, customer demand and pressures from environmental groups will be the driving forces behind the supply of certified products”. The lack of monetary incentives for certification seems to be the reason associated with the low expansion of the market for certified wood worldwide.

In developing countries certification seems to have little impact. Despite a few studies that demonstrate potential willingness to pay for some types of certified forestry products in countries like Guatemala and Malaysia (van Kempen *et al.* 2009; Kollert and Lagan 2007), little research has been conducted that characterizes a market for labeled wood. The market seems close to insignificant based on these studies. Hrabovsky and Armstrong (2005) identified China as an emergent market that has, in the past decade, increased its demand for certified raw material mostly due to requests by major importers of its finished, re-exported, products, chiefly represented by European countries. This indicates once more that the demand by niche markets is the main driver of forestry certification.

Overall, studies demonstrate that the market for certified wood products has shown little progress over the decades since it was first implemented, in most countries, in the early 1990’s and it is still very small. Even though a great deal of research captures a considerable hypothetical willingness to pay for certified forestry products, there is no consistent quantitative data on price premiums and evidence on behavioral willingness to pay is still practically inaccessible for these goods. There seems to be a lack of consistent documented market benefits for certified forestry products.

Who are the consumers of certified wood products?

Many of the studies looking at hypothetical willingness to pay for certified forestry products conducted in the U.S. seem to identify a same group of people with higher willingness to pay for environmentally-friendly forestry products. Results by Ozanne and Vlosky (1997) and Ozanne and Smith (1998) show that the demand for certified wood products was represented mostly by a select group of consumers who are members of the Democratic Party, members of some environmental organization, most likely female, and politically liberal (which explains the party affiliation). No conclusions could be drawn regarding other demographic or socioeconomic characteristics of consumers, such as household income, age and education. In 2003, Ozanne and Vlosky found very similar results. Anderson and Hansen, in a study published in 2004 on impacts of environmental certification on consumers' preferences for wood furniture, concluded that the market for eco-friendly wood should target mainly females. Similarly, Jensen *et al.* (2004) and Aguilar and Vlosky (2007) show evidence to support that females express a higher likelihood of paying a price premium for such goods when compared to males.

The identification of a select cluster of consumers for certified products has two sides to it. On one hand, it demonstrates that the information concerning the importance of eco-labeling is not wide spread among most sectors of society. This is illustrated here by the fact that consumers pertaining to the cluster in question are in most part involved to some extent with environmental organizations. On the other hand, this cluster represents a target that can be aimed by marketing strategies working to increase and establish a steady demand by the group identified.

Two studies, one in Canada (Kozak *et al.* 2004) and the other one in Switzerland (Hansmann *et al.* 2006), specifically stress the lack of advertisement and information exchange between producers and consumers regarding the benefits and goals of forestry certification. As mentioned previously, the implications of marketing for achieving the goals of eco-labeling are extremely important. O'Brien and Teisl (2004) interestingly discuss that actual price premiums are not being seen in the market for certified wood in the U.S. due to the nature of current market strategies. The paper explains that few people are familiar with the certifying groups or with the criteria they use in awarding certification, which makes the frequently used simple eco-seal type labels ineffective.

Without information on the goals and relevance of certification, consumer involvement during the purchase process is likely to be smaller, thus decreasing the success of establishment of market incentives, particularly monetary. Moreover, information on the effectiveness of market-based environmental approaches is extremely important to assure that skepticism does not hurt the market for “green” products. Good communication between consumers and producers work to guarantee long-lasting benefits of such initiatives.

What are the lessons for the seafood sector?

The literature on the market for certified forestry products reveals important implications for the seafood sector. This information helps clarify patterns observed in the course of the establishment of a certified seafood market and also serves as a model from which lessons can be learned. As mentioned previously in this report, the fact that both sectors make use of labels with an “environmental only” concern, results in a closer relationship between them than other labels, such as organic labeling. Both markets deal with consumers’ altruism as opposed to direct personal benefit, therefore perhaps provoking similar reactions from the public.

The process of certification is often costly for producers. The literature shows that, for forest certified products, there is little to document the existence of actual price premiums, even after almost 20 years of such products being in the market, which may compensate producers for the costs of certification. At best, there is a body of literature which shows there is some evidence of consumers’ willingness to pay a price premium, although the evidence is not overwhelming. There seems to be a broad public acceptance of environmentally-friendly forest products, and especially among certain sub-sections of consumers.

An important point revealed by the forestry literature is the potential existence of a target group of consumers, particularly in the U.S., which may assist in marketing campaigns for certified seafood products. It may be that the group of consumers likely to purchase certified forest products is similar to the group of consumers likely to purchase certified seafood products. Thus, the identification of the consumers studied by the researchers in the forest certification studies may shed some light in developing marketing strategies to establish a more solid market and increase the chances of capturing monetary market benefits to sustain a “greener” seafood

industry. There is less utility from the forest literature in this regard than might be hoped, as little socioeconomic and demographic information on likely consumers was provided.

The literature on eco-labeled forestry products discusses that progress in establishing a market for certified wood products has been slow, and that there has been little advancement. The overall results appear to indicate that is largely related to the lack of advertisement and poor information exchange between producers and consumers. Although the goals of certification are focused on environmental factors, based on scientific standards, the means to achieve them is market-based. The forest literature collectively implies that better marketing strategies for most certified wood products would improve the market for certified products. Moreover, information on the achievements of “green” market-based initiatives would help to alleviate consumer skepticism that certification programs are not achieving their promised environmental goals.

Market-based strategies have great potential to successfully address environmental issues because they incentivize changes in industry behavior by increasing the demand for eco-friendly goods. The forestry literature indicates that there are many parallels to the research on seafood certification. Although forest certification has been present longer than seafood certification, little is known about actual market benefits to the forest industry. The forestry literature shows that capturing evidence, in particular quantifiable evidence of market benefits from certification, is a difficult task to undertake. This is strikingly similar to the experience documenting market benefits from fisheries certification. This does not, however, mean that researchers should cease in the attempt. Just keep trying.

References

- Aguilar, F. X. and Vlosky, R. P. (2007). "Consumer willingness to pay price premiums for environmentally certified wood products in the U.S." *Forest Policy and Economics* 9: 1100–1112.
- Anderson, R.C. and Hansen, E.N. (2004). "The impact of environmental certification on preferences for wood furniture: a conjoint analysis approach". *Forest Products Journal* 54 (3): 42-50.
- Anderson, R.C., Laband, D.N., Hansen, E.N. and Knowles, C.D. (2005). "Price premiums in the mist". *Forest Products Journal* 55 (6): 19-22.
- Bigsby, H. and Ozanne, L.K. (2002). "The purchase decision: consumers and environmentally certified wood products". *Forest Products Journal* 52 (7/8): 100-105.
- Fonner, R. (2007). "Consumer Preferences for Seafood Information Attributes", M.S. Thesis, Department of Agricultural and Resource Economics, Oregon State University.
- Fowler, G. A. (2002). "'Green' sales pitch isn't moving many products". *Wall Street Journal* No. 6 March pp. B1 and B4.
- Grönroos, J.C.M. and Bowyer, J.L. (1999). "Assessment of the market potential for environmentally certified wood products in new homes in Minneapolis/St. Paul and Chicago". *Forest Products Journal* 49 (6): 28-34.
- Gulbrandsen, L. H. (2009). "The emergence and effectiveness of the Marine Stewardship Council". *Marine Policy* 33: 654-660.
- Hansmann, R., Koellner, T. and Scholz, R. W. (2006). "Influence of consumers' socioecological and economic orientations on preferences for wood products with sustainability labels". *Forest Policy and Economics* 8: 239– 250.
- Hrabovsky, E.E. and Armstrong, J.P. (2005). "Global demand for certified hardwood products as determined from a survey of hardwood exporters". *Forest Products Journal* 55 (2): 28-35.
- Jaffry, S., Pickering, H., Ghulam, Y. (2004) Consumer Choices for Quality and Sustainability Labelled Seafood Products in the UK. *Food Policy*, 29, 215-228.
- Jensen, K. L., Jakus, P. M., English, B. C., Menard, J. (2004). "Consumers' willingness to pay for eco-certified wood products". *Journal of Agricultural and Applied Economics* 36 (3): 617-626.
- Johnston, R.J. and C. Roheim. 2006. "A Battle of Taste and Environmental Convictions for Ecolabeled Seafood: A Contingent Ranking Experiment," *Journal of Agricultural and Resource Economics*. 31(2): 283-300

- Johnston, R. J., C. Roheim Wessells, H. Donath, and F. Asche. 2001. "Measuring Consumer Preferences for Ecolabeled Seafood: An International Comparison," *Journal of Agricultural and Resource Economics*, 26(1):20-39.
- Koenig, K. M. (1994). "Green labeling taking root". *Wood and Wood Products* 99: 107-110.
- Kollert, W. and Lagan, P. (2007). "Do certified tropical logs fetch a market premium? A comparative price analysis from Sabah, Malaysia". *Forest Policy and Economics* 9: 862–868.
- Kozak, R. A., Cohen, D. H., Lerner, J. and Bull, G. Q. (2004). "Western Canadian consumer attitudes towards certified value-added wood products: an exploratory assessment". *Forest Products Journal* 54 (9): 21-24.
- Krugman, H. E. (1965). "The impact of television advertising: Learning without involvement". *Public Opinion Quarterly* 29: 349-356.
- Morris, M. and Dunne, N. (2004). "Driving environmental certification: its impact on the furniture and timber products value chain in South Africa". *Geoforum* 35: 251–266.
- O'Brien, K.A. and Teisl, M.F. (2004). "Eco-information and its effect on consumer values for environmentally certified forest products". *Journal of Forest Economics* 10 (2): 75-96.
- Owari, T., Juslin, H., Rummukainen, A. and Yoshimura, T. (2006). "Strategies, functions and benefits of forest certification in wood products marketing: Perspectives of Finnish suppliers". *Forest Policy and Economics* 9: 380– 391.
- Ozanne, L. K. and Smith P. M. (1998). "Segmenting the market for environmentally certified wood products". *Forest Science* 44 (3): 379-389.
- Ozanne, L.K. Vlosky, R.P. (1997). "Willingness to pay for environmentally certified wood products: a consumer perspective". *Forest Products Journal* 47 (6): 39-48.
- Ozanne, L.K. and Vlosky, R.P. (2003). "Certification from the U.S. consumer perspective: A comparison from 1995 and 2000". *Forest Products Journal* 53 (3): 13-21.
- Roheim, C. (2008) "The Economics of Ecolabelling," In: *Seafood Ecolabelling: Principles and Practice*, Eds. T. Ward and B. Phillips, Blackwell Publishing, Oxford, UK, pgs. 38-57.
- Stevens, J. Ahmad, M. and Ruddell, S. (1998). "Forest products certification: a survey of manufacturers". *Forest Products Journal* 48 (6): 43-49.
- Teisl, M. E., Peavey, S., Newmann, F., Buono, J. A. and Herrmann, M. (2002). "Consumer reactions to environmental labels for forest products: A preliminary look". *Forest Products Journal* 52 (1): 44-50.

Van Kempen, L., Muradian, R., Sandóval, C. and Castañeda, J. P. (2009) . “Too poor to be green consumers? A field experiment on revealed preferences for firewood in rural Guatemala”. *Ecological Economics* 68: 2160–2167.

Wessells, C. Roheim. 2002. “The Economics of Information: Markets for Seafood Attributes,” *Marine Resource Economics*, 17:153-162.

Wessells, C. Roheim, R.J. Johnston, and H. Donath. 1999. “Assessing Consumer Preferences for Eco-Labeled Seafood: The Influence of Species, Certifier and Household Attributes,” *American Journal of Agricultural Economics*, 81(5):1084-1089.

Winterhalter, D. and Cassens D. (1993). “Telling the sustainable forest from the trees”. *Furniture Design and Manufacturing*. pp. 101-106.