Laarman International Gift Fund – 2011

Simon C. Hall

Beef Production in Brazil: Willingness to Pay for Sustainable Ranching

The global market for beef has experienced significant expansion in recent decades. The majority of growth in this market can be traced to increased consumption patterns in developing nations. The emergence of an expanding global middle class provides evidence that demand for beef may continue to rise. In response to high levels of demand, Brazilian cattle production has increased significantly. Brazil is the now the leading world exporter of beef products and is ranked second in global production.

In contrast to the confined feed lot systems typically implemented by U.S. producers, over 96% of all Brazilian ranching operations are managed as open grazing. As a result, Brazilian cattle ranching systems tend to be significantly more land intensive, requiring extensive pasture area. This ranching style coupled with the increased demand for beef has resulted in significant land use transformation in Brazil, including the intensification of some existing ranches and controversial forest clearing for new pasture in Amazonia. Both intensification of cattle production and the expansion of pasture can negatively affect environmental quality, resulting in degraded landscapes and problems such as reduced water quality and loss of biodiversity.

Current trends in cattle management do not emphasize environmental stewardship, either in the sense of following the law or land management. Ranching operations typically employ limited conservation practices and few actively monitor or regulate nutrient leaching, runoff or soil quality. These management practices have led to significant environmental degradation and the loss of valuable ecological services. To increase conservation practices and promote sustainability within cattle operations in Brazil, it is necessary to develop a better understanding of the mechanisms that drive this market.

The Laarman International Gift Fund (LIGF) provided the funding to implement a research project gathering data regarding consumer preferences for beef in the southern Brazilian city of Curitiba in the state of Paraná. This stage of the research focused on the development and implementation of a personal face-to-face intercept survey. The primary objective of the survey was to gather data on consumer willingness to pay for improved environmental quality on cattle ranches in Brazil through retail purchases of certified sustainable beef. We also collected data regarding purchasing habits and basic socioeconomic information.
The majority of funding from this grant was used to hire a team of Brazilian interviewers to conduct personal face-to-face surveys in public locations throughout the city. A team of eight Brazilian students from the Universidade Federal do Paraná were hand selected for participation based on their background and knowledge with environmental issues and ecosystem services as well as their personal communication and interviewing skills. Student interviewers went through a two stage training process. The first stage focused on familiarization with the survey and improving interviewing techniques through use of practice sessions within the group. The second stage involved on-site interviewing in public locations throughout the city, providing an active environment for interviewers to experience real time data collection. Overall, the training sessions significantly improved interviewing techniques, helping to ensure the integrity of data collection throughout the survey process.

In addition to the hiring of student interviewers and associated training, the Laarman International Gift Fund also provided the financial support necessary to travel throughout the city to different survey locations. Funding was used to pay transportation costs for the survey team, enabling data collection at a variety of different locations including; public parks and green spaces, bus terminals, street fairs as well as the municipal market. A diversified set of interview locations was an essential aspect of this research as it allowed data collection from individuals with different socioeconomic characteristics, providing a more balanced data set to analyze.

The main objective of the survey was to record consumer willingness to pay for improved environmental quality on cattle ranches in Brazil through retail purchases of certified sustainable beef products. Curitiba was an ideal location to conduct this research because the city is located in a region that consumes a significant amount of beef products. The city is also widely considered to be “environmentally conscious,” with many residents aware of ecological issues such as those associated with deforestation, land degradation and water quality. In addition to environmental awareness, residents are also characterized as having higher average levels of education and higher per capita incomes compared to national averages. Thus, if any Brazilian consumers would be willing to pay for improved environmentally quality on cattle ranches and sustainable production of beef, then we would expect to find evidence of this in Curitiba. Initial observations of the 413 completed surveys and associated summary data reveal that consumers of beef in Curitiba are indeed willing to pay slightly more for certified sustainable beef products (on a per kilogram basis) when compared against traditional uncertified products. Further statistical analysis will be needed to make more conclusive inferences about the data.
The contribution from the Laarman International Gift Fund provided the opportunity to investigate the value that residents of Curitiba place on environmentally friendly beef production in Brazil. Given the intensification patterns of this industry, it is important to understand consumer preferences in order to promote policy that will help mitigate environmental degradation while still continuing to meet consumer demand. I feel that this research will make an important contribution to the field of non-market valuation and the development of new tools and incentives for sustainable development in Brazil. I would like to thank the Laarman International Gift Fund for the contribution that helped operationalize this research. Thank you for your support!
Photos

Student interviewer conducting a survey at a bus terminal in the Brazilian city of Curitiba in the state of Paraná.
Student interviewer conducting a survey at a bus terminal in the Brazilian city of Curitiba in the state of Paraná.
Student interviewer conducting a survey at a street market in the Brazilian city of Curitiba in the state of Paraná.
Student interviewer conducting a survey at a public park in the Brazilian city of Curitiba in the state of Paraná.
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