

## Agribusiness and Sustainability in Brazil

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### Profile:

Visiting research fellow, Sao Paulo Business School, Getulio Vargas Foundation (1977-79).

Visiting professor, Institute of Economic Research, University of Sao Paulo (2002-2003).

Visiting fellow, Institute of Development Studies, at University of Sussex, UK (2003-2004)

Coordinator, Latin America Project, Institute of Developing Economies: IDE (2004-2009), Director, Area Research Division, IDE (2009-2010)

### Main Works:

*The Amazon: Its Nature and Development*, Joint work with T. Nishizawa, Iwanami-shoten, 1992.

*State and Market: A New Development Framework of Latin America*, Co-edition with S. Nishijima, Institute of Developing Economies, 1997.

*Could Local Economy Regenerate?: Lessons of Latin American Industrial Clusters*, Co-edition with Y. Tanaka, Shinhyouron, 2010.

### Abstract:

Today the world is facing many difficulties. Poverty and hunger continue to be unsolved. Global warming and other environmental problems have been aggravated. In this context Brazil is concerned to have an advantage over the food and environmental crisis, as it is one of the countries with capacities to overcome these difficulties.

The agribusiness is a driving force of Brazilian economic growth. The agribusiness accounts for around 30% of its GDP and earns a major part of foreign exchange. Brazil is a main producer and exporter of sugar, soybean, beef and other agricultural and livestock products. Brazil has advanced in many kinds of innovations such as the introduction of new seeds and precision agriculture (farming management based on observing and responding to intra-field variations). *Cerrado* (Brazilian savanna) has become an important cropland to feed not only Brazilians but also the world population. Many industrial complexes have been organized. Soybean complex integrating, soybean growing, vegetable oil, poultry and bio diesel are prominent examples. Multinational major grain companies have come to organize and control global supply chains from the

farmlands to the market. Moreover, taking advantage of the rich biodiversity in Brazil, the industrial sector has succeeded in developing new medicines, cosmetics and other chemicals.

Additionally, Brazil has outdistanced in efficient and low-cost ethanol supply. The constant supply of ethanol and putting flex fuel cars onto the market have reduced the consumption of gasoline, which has improved Brazilian energy balance. Today the renewable energy accounts for 46% and the ethanol accounts for 11% of total domestic energy supply. Conversion from carbon energy to ethanol and other carbon free bio-fuels mitigate global warming. The ethanol and bio-diesel programs, which were reinforced and implemented by the Labor Party Governments, aim to achieve sustainable development and poverty reduction.

The emergence of agribusiness, however, has exposed the fragile infrastructure and other physical bottlenecks. More crucial problems to be concerned are social environmental issues. Modernized agriculture does not contribute to the creation of employment. On the contrary agribusiness has socially excluded small farmers. The unequal distribution of farmlands remains unchanged. The rapid agribusiness development in the *Cerrado* has shut out many family farmers. The mechanization in sugarcane harvest has been successful in decreasing CO<sub>2</sub> emission but has caused employment creation to stagnate. Sugarcane cultivation has triggered competition for land among the crops. The conversion of pasture into cropland has partially supplied land for sugarcane cultivation. The shortage of cropland in Sao Paulo, the main sugarcane cultivation area, has had a domino effect, thrusting out other crops production into the *Cerrado*. Subsequently the competition for land among the crops in the *Cerrado* has displaced the growing area of soybean and other crops to the Amazon area. The bio-diesel program has failed to include family farmers to participate in oil crop production because of their small and unstable supply. The soybean produced by big farmers has become a main source of bio fuel.

In addition to these phenomena of social exclusion, agribusiness is deteriorating the environmental problems. The *Cerrado* has rapidly lost its biodiversity. It faces soil fertility decrease, water drying up and other land degradation. Although deforestation in the Legal Amazon decreased in the 2000s, forest degradation has deteriorated. The Amazon has recently experienced strong droughts at short intervals. The possible aridification of the Amazon might not only decrease rainfall in the South, the main breadbasket of Brazil, but also undermine the expectation that the Amazon will be the last farmland for the planet.

This presentation aims to discuss the Brazilian agribusiness from the viewpoints of innovation, social inclusiveness and environmental sustainability.