



CGPRT

Flash

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Short Article

Farm to Table: Implication of Traceability to CGPRT Crops

"Traceability" was originally used as a technical term in measurement science. The original meaning of "traceability" was the accuracy of instruments. However, recently, especially after the outbreak of bovine spongiform encephalopathy (BSE), "traceability" attracts more attention in the field of food safety. In this context, "traceability", so-called "farm to table" means the ability to trace and follow a food or feed through all stages of production, processing and distribution.

The basic idea of traceability is usually constructed by those modules; i) identification of a certain amount of commodities with a uniform production process (formulation of a lot), ii) recording the history of cultivation, processing or distribution of the commodity in respective lots, iii) preserving the records and disclosure in response to requests from consumers or others, iv) external audit to assure the reliance of the system. Trials to establish traceability progressed especially in Europe. After the risk of BSE infection to human beings was thought to be undeniable in 1996, the European Union (EU) introduced traceability of beef by regulation, which aims at the identification of bovine animals and labeling of beef (EC, 1997). To extend traceability to the whole food complex in the region, the EU adopted a regulation obliging the traceability of any processed and unprocessed food and any feed at all stages of production, processing and distribution in 2002 (EC, 2003). The regulation will be enforced from 1 January 2005.

Traceability is a useful tool especially in order to secure food safety by increasing transparency of its supply chain. One of the regulatory trends of food safety in developed countries is "export of regulatory responsibility and burden". To assure compliance for imported products, importing countries require exporting countries to have in place a regulatory structure (a competent authority). This has resulted in some exporting of regulatory responsibility and burden to other countries as the price of entry into developed country markets (Caswell, 2003).

In general, the necessary cost for establishing traceability should be borne by producers or traders, not by consumers. This means it is difficult for farmers to shift the cost onto their commodity price. Indeed, farmers may attract reliance to

their products from consumers through traceability, which will favor the expansion of demand. However, it may create another challenge for resource poor farmers, especially if they cannot bear the additional cost. Since the profitability of CGPRT crops is relatively low compared to other high value commodities such as beef or fruit, the condition may be more severe for CGPRT crop farmers.

It is worth noting that some CGPRT crop farmers and processors struggle to take advantage of traceability to improve their crop quality. The Brewers Association of Japan, consisting of five major beer brewer firms in the state, launched a recording system of cultivation history of domestic barley production. This trial makes up part of a traceability system, which has been carried on by the Central Union of Agricultural Cooperatives. About 17,000 contract farms in major barley production areas participate in the project. They record their cultivation history in fields such as amounts and substances of fertilizer or chemical application, then, submit reports to the Brewers Association through agricultural cooperatives in respective regions. The agricultural cooperatives provide the results of their chemical analyzes of protein content in crops, as it deeply affects the fermentation process of beer. On the other hand, the Brewers Association proposes individual farms' countermeasures for improving the quality of their products, after synthesis and analysis of the reports from the contract farms. The project aims to improve the quality of domestic barley production as well as establishing traceability. Nearly 800 thousand tons of barley is consumed annually by the beer industry in Japan, however, domestic barley is less competitive in price than imported barley (NIKKEI, 2003).

Traceability will increase in importance and be adopted in more countries with increasing numbers of commodities under the recent trend of consciousness of food safety. Further discussion will be necessary on how farmers benefit from traceability rather than that they just owe the necessary cost for the establishment and maintenance of the system.

Rewrite by Tomohide Sugino, Project Leader, AGRIDIV Project, CGPRT Centre

(References available upon request)

Flash **BREAKING**

A New Chinese Technology for Higher Sweet Potato Yields

A novel seed production technique for sweet potato has been implemented in Shandong and Anhui provinces, China. The technique is able to eliminate viral diseases from sweet potato planting materials. By using this technique, Chinese farmers can increase their potato yields as much as 30-40 per cent without additional fertilizer, pesticides, or genetic improvements. The harvest on 800,000 hectares capped a five-year period of growth that added more than US\$ 550 million to China's economy. If extended to all of China's sweet potato producing regions, the technique could eventually produce benefits exceeding US\$ 1.5 billion per year ■

International Potato Center, 2003. Researchers Boost Chinese Sweet Potato Production without Extra Chemical or Genetic Improvement.

Poverty and Agriculture in South Asia

South Asia generates less than 2 per cent of world income, yet supports 22 per cent of the world's population and 44 per cent of the world's poor (those who earn less than a dollar a day). Most of these people are dependent on agriculture for their livelihoods and their survival. Sixty per cent of the South Asian labor force is involved in agriculture, which accounts for about 25 per cent of South Asia's GDP ■

IFPRI, 2003. South Asia Initiative, www.ifpri.org.

Contribution of Rich Countries to Reduce Poverty

Rich countries account for two-thirds of world trade and comprise nearly three-quarters of world GDP. Therefore, their domestic policies, mostly evident in agriculture, have the greatest effect on the global market. Despite the fact that agricultural protection, tariff peaks, and anti-dumping measures shield powerful lobbies, rich-country leadership in reducing this protection is a prerequisite for a pro-poor development outcome ■

World Bank, 2003. Global Economic Prospects: Overview.

China Using TRQ to Protect Domestic Maize Market

In negotiating entry to WTO, China has agreed to use a tariff-rate quota (TRQ) to control the domestic market of its sensitive crops, such as maize. Under this policy instrument, maize imports will be permitted at a low duty on a volume up to 4.5 million tons (to increase to 7.2 million tons after 2004), while imports above the quota level will be subjected to a much higher duty ■

Meng, E. and Ekboir, J., 2002. Current and Future Trends in Maize.

Tariff Cuts More Effective than Subsidies

Related to policy choices in reducing world trade distortion, tariffs matter a lot more than subsidies in terms of their impact on world prices. Moreover, the positive welfare effect of reducing tariffs on products that are also affected by agricultural support is a multiple of what can be achieved from an equivalent percentage cut in domestic support only ■

Hoekman, B., Francis Ng, and Olarreaga, M., 2002. Reducing Agricultural Tariffs versus Domestic Support: What's More Important for Developing Countries, World Bank Policy Research Working Paper No. 2918.

New Sweet Potato Varieties

Development of new varieties of sweet potato by US scientists has given rise to new hope for sweet potato industries. These new sweet varieties have less sugar and soak up less oil than traditional varieties, making them perfect for great-tasting and nutritious chips and french fries. Unlike popular sweet, orange-fleshed U.S. varieties, the new sweet potatoes resemble those eaten in the tropics and favored by U.S. consumers from Asia, Africa, the Caribbean and South America. The new sweet potato chips and fries soak up less oil because they have a higher percentage of dry matter, meaning they're more dense than traditional varieties. The new chips and fries are more crispy and contain less fat.

The orange or yellow sweet potato chips and fries contain lots of nutrients. One medium-sized sweet potato provides more than the Recommended Dietary Allowance of vitamin A, as well as high levels of fiber, vitamin C and folic acid. Moreover, these new sweet potato varieties require fewer pesticides because they're resistant to key sweet potato pests.

Based on USDA, 2001. New Sweet Potatoes Make Great Chips, Fries, <http://www.ars.usda.gov/is/AR/archive/may01>.

Improving Health with Iron Rich Mungbeans

Around 3.5 billion people in the developing world are suffering from iron deficiency and Asia has the highest prevalence of anemia, the most serious form of iron deficiency. A study conducted in India shows that consumption of mungbean supplementation that is rich in iron is an effective way to overcome this problem. Children receiving the supplementation showed a better health condition or less clinical deficiency symptoms. For example, this supplement could increase hemoglobin level by around 5 per cent. Moreover, this study shows that the supplement has a positive impact on performance and overall physical stamina. The general policy implication of this study is that enhancing iron bio-availability through modified preparations of local dishes is a cost effective way of improving the health of population groups at risk.

Based on Weinberger, K., 2003. The Impact of Iron Bio-availability-enhanced Diets on Health and Productivity of School Children: Evidence from a Mungbean Feeding Trial in Tamil Nadu, India, Asian Vegetable Research and Development Center.

Partnership to Improve Cassava Yields

Cassava is the third most important source of calories in the tropics, after rice and corn. More than 600 million people depend on cassava in Africa, Asia and Latin America. Cassava is grown by poor farmers, many of them women, often on marginal land. For these people, the crop is vital for both food security and income generation. Despite the importance of cassava in the fight against hunger, investment in research to improve the tropical root crop has lagged far behind that of other basic food crops. This has resulted in only minor increases in cassava productivity over the past 30 years -- less than 1 per cent annually compared to 2-5 per cent for rice, wheat, and corn. Bacterial and viral diseases, insect pests, weeds, and drought have all combined to limit cassava production.

To overcome these problems, thirty of the world's leading experts in cassava research have established the Global Partnership for Cassava Genetic Improvement, a new partnership to promote and coordinate global investment in the genetic improvement of cassava, an important source of nutrition in tropical countries. This new partnership is a very positive development, reflecting the urgent need to support the genetic improvement of cassava to help millions of the world's hungriest people.

Based on FAO, 2002. Partnership Formed to Improve Cassava, Staple Food of 600 Million People, Press Release, Rome, Italy.

"A Sweet Potato a Day Keeps the Doctor Away"

Often being undermined, sweet potato is now considered as one of the most nutritious and healthy foods based on the following facts:

- One cup of cooked sweet potato provides 30 mg (50,000 IU) of beta carotene (vitamin-A). It would take 23 cups of broccoli to provide the same amount.
- Sweet potatoes have four times the US Recommended Daily Allowance (USRDA) for beta-carotene when eaten with the skin on.
- Sweet potatoes are a great source of vitamin-E, and they are virtually fat-free, which makes them a real vitamin-E standout. Most vitamin-E rich foods, such as vegetable oils, nuts and avocados, contain a hefty dose of fat. Just two thirds of a cup of sweet potato provides 100 per cent of the USRDA for vitamin-E, without the unwanted fat.
- Sweet potatoes provide many other essential nutrients including vitamin-B6, potassium and iron.
- Sweet potatoes are a good source of dietary fiber which helps to promote a healthy digestive tract. Sweet potatoes have more fiber than oatmeal.
- Sweet potatoes are virtually fat-free, cholesterol-free and very low in sodium. A medium sweet potato has just 118 calories.

Based on Cordell, R., 2001. A Sweet Potato a Day Keeps the Doctor Away, <http://www.ars.usda.gov/is/AR/archive/may01>.

Flash EVENT



Organic Cereals and Pulses 2004: Markets and Mixtures

8 January 2004

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9th International Barley Genetics Symposium

20 - 26 June 2004

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Book Review

Development Policy in the New Millennium and the Doha Development Round

Kenneth W. Abbott, Publication Stock No. 061503, Published and Printed by The Asian Development Bank, Philippines, 2003

This book is focused on a comprehensive assessment of the Doha Round from the perspective of development policy. This book starts with the main objective of the Doha Round, that is development, so that the round is labeled as the Doha Development Agenda (DDA). Trade negotiations and commitments under WTO, including in the DDA, are perceived as poorly suited to many aspects of development. However, trade institutions can still make some major contributions by removing impediments of development within trade rules and giving priority to issues of developing country concerns.

This book presents the complex view about development, poverty, and inter-link between development, trade policy, and poverty. Then, it reviews some important issues in DDA negotiation that are perceived to impede development, such as, market access in developed countries for exports from developing countries, agricultural trade, Trade-Related Aspects of Intellectual Property Rights (TRIPs), and reciprocity.

In response to these issues, this book elaborates trade reform policies that can promote development. In this respect, two major schools of thought, namely the enlightened standard view (ESV) and critical view (CV) are discussed. ESV trade and development policies to promote development are focused on the improvement of market access in developed countries for developing country exports, especially in the labor intensive and agriculture sectors where the barriers are high and potential payoffs great. Some other policy instruments under ESV are complementary policy change in developing countries, aids for trade and domestic reform, and improvement of developing countries' participation in WTO governance.

As shown by its name, CV emphasizes more fundamental changes in trade negotiation. The basic idea of this view is that trade liberalization is an intermediate goal and a mean to achieve the ultimate goal, namely, development. Thus, the question is not whether a policy is market distorting, but whether it is development distorting. Some main trade policy issues under CV are a call for rectifying imbalances in WTO agreements like the agreement on TRIPs and General Agreement on Trade and Services; reframing "reciprocity" to reflect different levels of development; enhancing special and differential Treatment (SDT) for a measure to promote

Development; exempting developing countries from inappropriate domestic institutional requirements; and acting on special issues like access to medicine and food security. This book is closed with political action strategies to restore development issues to the heart of DDA, namely, hard bargaining and public diplomacy.

This book is a good reference for those interested in the link of trade, poverty and development. This book is timely since in the last decade, the main issues of most international interests and organizations are on poverty. Most recent figures for years both before and after the Asian crisis show that more than 1.2 billion people live in poverty and most of them are farmers. This book also criticizes the view that places trade liberalization as the main target, undermining the more important goal, that is development and poverty alleviation. Moreover, it also shows imbalance between developed and developing countries, so that reciprocity will put developing countries on an unfair playing ground for competition. For example, agricultural subsidies in the rich world total US\$ 300 billion per year, more than Africa's GDP and six times the amount of development aid to poor countries.

The view of this book has a positive policy implication on the development of CGPRT crops in the Asia and Pacific region. Firstly, the book places poverty and development as the main issue, a key issue in Asia and the Pacific. Secondly, agriculture is the main livelihood for poor households in Asia so that improvement the of market access and trade barrier reduction in developing countries increase the competitiveness of the CGPRT crops produced in the region. Thirdly, if CV can be adopted in the DDA, the development of CGPRT crops in the region will be more prospective because the governments have wider policy options without being rigidly constrained by the elimination of distorting trade policies. In other words, the view of the book will have potentially positive impacts on the poor and CGPRT crops in the region. It is now the challenge for policy-makers and policy analysts to formulate policy options to capture this opportunity.

Reviewed by Wayan R. Susila, CGPRT Centre, Bogor, Indonesia.