



CGPRT

Flash



Volume 3, No. 3 March 2005

ISSN 1693-4636

Short Article

Nutritional Value of Secondary Crops - Traditional and Modern Facts for Poverty Alleviation

Though we use the term “secondary crops” in the name of our institute, UNESCAP-CAPSA, I have a feeling that some people seem to have a negative impression of this term. I had an opportunity to contribute a small article to a Japanese newspaper, which has a large readership among farmers and other stakeholders of the agricultural industry in the country. The topic of the article was to introduce the importance of secondary crops in the context of poverty alleviation in developing regions. In the article I described secondary crops as “neglected crops” or “crops for the poor” by which I intended to imply the current status of these crops, which receives little attention from policy planners and their important role in poverty alleviation. I believed these two facts to be common knowledge to people working in technical cooperation for rural development.

Therefore, I was a bit embarrassed when I received comments from the editor saying he was afraid that the terms “neglected crops” and “crops for the poor” would be understood negatively by Japanese farmers who produce these crops. Actually, until Japan achieved rice self-sufficiency in the middle of the 60s¹, secondary crops such as millet and barley were consumed as substitutes of rice and it cannot be denied there was a negative stigma attached to secondary crops as food for those who could not afford rice in those days.

In general, per capita direct consumption of secondary crops in Asia and the Pacific is decreasing as the economy develops, except for potato, which is often consumed as a vegetable. The basic strategy of secondary crop development is promoting their industrial uses, which are represented by food and feed processing, starch production from root crops or bio-fuel and biodegradable plastics.

Recently, direct consumption of minor cereals attracted attention from both producers and consumers in industrialized societies. The demand for minor cereals in Japan is growing very rapidly; the market size has increased to around ten billion JPY (100 million US dollars) per year. In November 2004, the Japan Minor Cereal Association was established. It consists of food producers, trading companies and researchers and aims to accelerate minor cereal production and consumption. One of their plans is the establishment of a certification system of “Minor Cereal Sommelier”, that will be knowledgeable about

cooking, nutritional value and other information regarding these crops (Yomiuri Shinbun, 2004).

Observing these trends, secondary crops, including minor cereals, are no longer “neglected” and recent enthusiasm in industrialized societies has remained us of the nutritional importance of secondary crops. Various nutritional facts support this idea. Most secondary crops are allergen free and contain substances with special effects that protect people from stress in daily life. Millet is rich in folic acid, which promotes red blood cell production, and soybean contains iso-flavone, which captures aggressive particles in the body which has an anti-cancerous effect. Most secondary crops excel in nutritional value compared to superior major cereals. Millet contains twice the energy, four times the protein, and nine times the fat of rice. Mungbean contains three times more iron than spinach and 100 grams of mungbean provides 5 per cent of the daily requirement of Vitamin-A equivalent, which is one of the most significant micronutrient deficiencies in developing regions, while milled rice contains almost no Vitamin-A (calculated by the author based on JST, 2004).

In spite of these facts, most local people don't recognize the nutritional value of secondary crops and national campaigns for public awareness are necessary (UNCAPSA). Golden rice (genetically modified Vitamin-A rich rice) might be helpful to some degree in combating the nutritional deficiency of the poor but only after abating people's suspicions surrounding GMO (Genetically Modified Organism). We need to remember that the natural nutritional value of secondary crops is far superior and poor people's access to them is much greater. An appropriate combination of major cereals and secondary crops can ensure an improved balanced diet. We need to better market opportunities to meet demand from developed countries. It is also time to exploit secondary crops not only for fatigued office workers in Tokyo but also for the improvement of nutritional conditions in developing regions

Written by Tomohide Sugino, Project Leader, AGRIDIV Project, UNESCAP-CAPSA, Bogor, Indonesia.

(References available upon request)

Flash **BREAKING****Poverty and Hunger Kill**

Globally, every 3.6 seconds someone dies of hunger; that is 24,000 people every day. About 75 per cent of these deaths are children under 5. In addition, the number of people living in extreme poverty has increased by 0.5 billion since 1995.

Anonymous, 2004. Hunger & Poverty, <http://www.justgive.org/guide/subcategories.jsp>.

Asia May be Losing Battle Against Poverty

One in six Asians is under-nourished and the region is heading for failure in its battle to halve the number of people living in poverty by 2015. In 1990 some 20 per cent of Asians were hungry. By 1995 the proportion had fallen to 16 per cent, but no further reduction has been achieved in the past nine years. It is warned that Cambodia, Lao People's Democratic Republic, Nepal, Democratic People's Republic of Korea, Bangladesh, Myanmar, and most Pacific island nations are unlikely to hit even one of the UN's development goals by the 2015 deadline.

Business Report, 2004, <http://www.busrep.co.za/index.php>, (February 2004).

Agricultural Growth and Poverty Reduction

Poverty data shows a weakening relationship between agricultural growth and poverty alleviation. In Asia, a one per cent increase in agricultural output was associated with an almost 0.6 per cent decrease in poverty in the 1970s and slightly over 0.1 per cent in the 1980s. However, the meaning of this statistical association is not clear. Is there causality or is it mere correlation? Further information is required on this issue.

ILO, 2005. World Employment Report 2004-2005: Employment, Productivity, and Poverty Reduction, International Labour Organization.

Working Poor

Today there are 550 million people who work but still live on less than US\$ 1 a day. These "working poor" represent 20 per cent of total world employment. They have to work long hours, in poor conditions, and without basic rights and representation. The World Employment Report 2004-2005 shows that bridging the global productivity divide, particularly in parts of the economy where the majority of people work such as in agriculture or the urban informal economy is essential for fighting poverty and stimulating growth in both output and "decent and productive" employment.

ILO, 2004. International Labour Organization, <http://www.ilo.org/public/strat/wer2004.htm>, (8 December 2004).

Lack of Infrastructure in Developing Countries

While there is clear consensus on the importance of infrastructure, the access, quality and financial needs for infrastructure services remain staggering. In rural areas in low-income countries, only 20 per cent of the population have electrical access, and less than 2 per cent have access to a telephone. In low-income countries, compared with OECD countries, energy losses are twice as large; water losses are four times as high; faulty telephone lines are ten times more common; and only 29 per cent of roads are paved, compared to more than 80 per cent in OECD countries. A recent study of seven Latin American countries suggests that due to poor quality, the effectiveness of public infrastructure is only about 74 per cent of that in industrial countries. The related long-run cost is equivalent to about 40 per cent of per capita income. Meeting the challenge of increasing access to quality infrastructure services will require sizable investments, around 7-9 per cent of GDP for all developing countries ■

Based on Uku, R., 2004. Infrastructure, One of the Key Pillars of Economic Growth, The World Bank Group, <http://web.worldbank.org/WBSITE/EXTERNAL/NEWS/0>.

Impact of Government Spending on Poverty in Thailand

Public investment in agricultural research and development (R&D), irrigation, rural education, and infrastructure (including roads and electricity), have positive impacts on agricultural productivity growth and rural poverty reduction in Thailand. Additional government spending on agricultural research and development improves agricultural productivity the most and has the second largest impact on rural poverty reduction. Investments in rural electrification reduce poverty the most and have the second largest growth impact. These two investments dominate all others and are win-win for growth and poverty reduction. Road expenditure has the third largest impact on rural poverty reduction, but only a modest and statistically insignificant impact on agricultural productivity. Government spending on rural education has only the fourth largest impact on poverty, but a significant economic impact through improved agricultural productivity. Irrigation investment has the smallest impact on both rural poverty reduction and productivity growth in agriculture, because it is already well developed ■

Based on Fan, S., Jitsuchon, S. and Methakunnavut, N., 2004. The Importance of Public Investment for Reducing Rural Poverty in Middle-income Countries, The Case of Thailand, Discussion Paper, IFPRI, <http://www.ifpri.org/>.

Impact of Tsunami on Food Security

Local communities severely hit by the tsunami disaster will face severe food security problems in the short and long-term because parents and relatives have been lost, livelihood assets have been destroyed, and sources of income no longer exist. Harvest prospects have deteriorated in agricultural areas worst hit by the tsunami and heavy rains. It is estimated that two million people in 12 different countries in the disaster region are in need of food assistance. However, in spite of local losses, overall food availability in the region affected should be adequate to cover food needs. Since relatively large rice supplies are available in the region, it is recommended that local purchases be made whenever possible in order to meet food aid requirements in the affected countries, so as to avoid domestic food market disturbances. However, given the damage to infrastructure, in particular roads, and the lack of suitable transportation means, logistical difficulties deserve particular attention for the distribution of food to the affected population ■

Based on FAO, 2005. Tsunami Affected Countries Face Severe Local Food Security Problems, FAONEWSROOM, <http://www.fao.org/newsroom/en/news/2005>, (11 January 2005).

GMO: Big Promises, Big Clouds

Generally, Asia is becoming more accepting of GMO (Genetically Modified Organisms) because many countries are developing, have growing populations and as they need to find enough food for their people, governments are willing to accept anything that promises this. Because GMOs have their genetic makeup engineered by scientists to boost beneficial characteristics and to remove detrimental ones, they come with the promise of bumper harvests and higher yields. But opponents of the use of GMOs say GMOs are "super strains" that could muscle other varieties into extinction. They also fear the crops could pose health problems not yet apparent and they are further opposed because the distribution of GMO seeds is controlled by international companies who tie growers into contracts they may not be able to honor, thus extending the poverty cycle. Some of Asia's governments are poor and not very strong, so they are attracted by the promises of big GMO companies. While GMOs come with big promises, they also come with big clouds ■

Based on Truth About Trade Technology, 2004, Asia Ramps Up GMOs, <http://www.truthabouttrade.org/>, (27 August 2004).

Flash EVENTS



Children and Poverty: Global Trends, Local Solutions?

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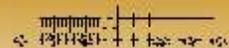
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LAYOUT DESIGN Fransisca A. Wijaya

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Article Review

Agricultural Trade Reform and Poverty Reduction in Developing Countries

Kym Anderson, World Bank Policy Research Working Paper 3396, September 2004

This paper is intended to offer an economic assessment of the opportunities and challenges provided by the WTO's Doha Development Agenda, particularly through agricultural trade liberalization, for low-income countries seeking to trade their way out of poverty. The effects of trade reform on global poverty are organized into three levels: first on developing countries as a group; then on different types of developing countries; and finally on different types of households within developing countries.

After discussing links between poverty, economic growth and trade, the paper shows the magnitudes and the distribution of the monetary impacts of trade liberalization on developed and developing countries. The total impacts were estimated at around US\$ 254 billion with agriculture contributing US\$ 164.7 billion. Developing countries will gain 42.7 per cent of the total impact. The paper also stressed that if developing countries want to maximize their benefits from the Doha Round, they also need to free up their own domestic product and factor markets so their farmers are better able to take advantage of new market opportunities abroad. Full liberalization of OECD farm policies would boost the volume of global agricultural trade by more than 50 per cent, but would cause real international food prices to rise by only 5 per cent on average.

The impacts of trade liberalization on developing countries at different stages and on different types of household have been varied. This paper shows that most developing countries and households will be better off in terms of some poverty indicators, such as, income and food security. Reducing agricultural policy distortions in developed countries would increase the mean and decrease the variance of international prices for agricultural products, which would stimulate production in other countries. This suggests food self-sufficiency would rise in those developing countries that transmit international prices to their domestic market. Moreover, since a high proportion of the poorest households in low-income countries are producers and net sellers of food, they would be key beneficiaries of such reforms.

In terms of research methodology, the paper is a good reference that enables to link trade liberalization to some aspects related to poverty. Applying a quantitative model (Global Trade Analysis Project/GTAP) makes it flexible to explore the impacts of various stages of trade liberalization. Moreover, the model enables to demonstrate the impact of trade liberalization on three levels, namely global, different levels of developing

countries (e.g. net importing and net exporting agricultural products), and different types of households (e.g. net sellers of food; landless farm labourers; non-farm, low-skill labourers). If supported by reliable data, sufficient empirical evidence, and more comprehensive previous studies, the results of the analysis from this model will give a better understanding on the magnitude and distribution of the impacts. This would help policy makers to formulate more appropriate and effective policies to reduce poverty.

Although good in estimating the monetary value of trade liberalization, this paper however could not provide clear results on the impact of trade liberalization in terms of the reduction of the number of poor people. This study only shows a limited number of indicators, total welfare, for instance, that could be misleading in terms of poverty alleviation. The assumption of the study that a high proportion of the poorest households in low-income countries are producers and net sellers of food is not supported by satisfying empirical evidence and unlikely to be true. Moreover, the paper only focuses on the "good sides" of trade liberalization, paying less attention to the obstacles to reach and implement agreements due to non-economic aspects, such as political aspects and non-agricultural issues (environment). The slow progress of the Doha Round is the most recent evidence that shows the diverging interests of parties involved in the negotiations. Abbots (2002) stated that the global trading system is still very much biased against the poor. An average poor person faces twice the level of trade tariff than an average rich person does. Political interests underlying various policies of developed countries cause some imbalances between developing countries and developed countries. Therefore, there is now less confidence that the mainstream trading system can help the poor and the benefits of liberalization to low-income agricultural producers are likely to be very limited (Madeley, 2004). Based on the data available from cross-country comparisons, it is hard to maintain the view that trade openness is, in general, a powerful force for poverty reduction in developing countries (Ravallion, 2004).

The impact of trade liberalization on rural areas is still very much debatable. The task now is to optimally make use of the opportunities trade liberalization might offer by implementing effective pro-poor policies and efficient market mechanisms that meet the different stages of development and resource endowment ■

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