



# CGPRT

# Flash

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## Short Article

# Developing Maize for Improving Poor Farmers' Income in Indonesia

Maize in Indonesia is the second most important cereal crop after rice with about 19 per cent of the total area planted to food crops during 1970-2000. Around 89 per cent of maize is grown on rain-fed lowland and dry land with erratic rainfall and low fertility. This means that maize is mainly grown in marginal areas with low productivity. This agroecosystem is also an environment where poor farmers, with smallholdings and limited resources, are living. Their farms are spread over remote areas with poor communication facilities and little access to information. Moreover, in East Java, East Nusa Tenggara, North Sulawesi, South-East Sulawesi, and Irian Jaya, maize is consumed as a staple food as well as rice.

In general, maize consumption in Indonesia can be grouped into four categories namely: (1) direct human consumption, (2) feed industry, (3) food industry, and (4) other usage (seed, loss, etc.). FAO data indicates that the share of maize demand for direct food to the total domestic demand declined dramatically from about 68 per cent in 1970 to around 7 per cent in 2001. In contrast, maize demand for feed increased steadily at an average rate of 6.4 per cent per year during 1970-2001, although during the Asian monetary crisis (1997-2001) it declined by nearly 5 per cent per year. Increases and decreases in maize demand for the feed industry are highly determined by the performance of the poultry industry. During the crisis, the poultry industry collapsed, thus the demand for feed and therefore maize declined significantly.

Ilham *et al.* (2002) and Simatupang *et al.* (2003), have shown positive income elasticities of demand for chicken meat as well as for eggs. They indicate that the demand for chicken meat and eggs will continue to increase as long as per capita income continues to rise and as a result, maize demand for feed (as a derived demand of livestock products) will automatically increase.

Over the same time period maize demand from the food industry experienced the highest growth in both its volume and share. Demand, in terms of quantity, dramatically increased from 0.38 million tons in 1970 to just less than 6 million tons in 2001, or grew at an average rate of 9.34 per cent per year during 1970-2001. The share of maize demand from the food industry sharply increased from 14.82 per cent in 1970 to more than 58 per cent in 2001. It is likely that maize is no longer considered as an "inferior good", when it

is processed into manufactured food within the food industry. The increasing demand for maize as a raw material for feed and food industries provides a good market for maize. Unfortunately, this market opportunity is not well utilized by poor farmers for several reasons. First, they are not able to adopt modern technology using hybrids, mainly due to cash capital constraints. Second, there has been very limited research and development attention to improve yield as well as the nutritional content of local maize varieties that are planted and used for direct human consumption by poor farmers.

The Government of Indonesia has undertaken many efforts and initiatives to increase maize production. Mass guidance for secondary crop production (Bimas Palawija) in 1973 and the GEMA PALAGUNG program in 1998, aiming at substantially increasing maize production, together with rice. From 1950-2000, at least 35 composite varieties and 10 hybrids have been released by Indonesian Research Centres. However, these policies, until now, have been unable to substantially increase farmers' income and national maize production to meet domestic demand.

In order to increase domestic maize production and to improve the on-farm income of poor maize farmers, there should be some policy efforts, such as:

- (i) Create and encourage a fair partnership between feed mills or food factories and maize farmers especially through poor farmers' organizations in maize production using HYVs.
- (ii) Provide 'field school' to small scale maize processing in order to provide added value to maize farmers.
- (iii) Prioritize the improvement of local maize varieties, in terms of yield and nutritional content through research and development.

Recently, the Indonesian Centre for Food Crops' Research and Development initiated high priority research on Quality Protein Maize (QPM). QPM is a new variety of maize with a protein content of more than double, which makes it a good source of vegetable protein for the poor who use maize as a direct food ■

*Written by* Dewa K.S. Swastika, Senior Researcher, Indonesian Centre for Agricultural Socio Economic Research and Development, Bogor, Indonesia.

Flash **BREAKING**

## Reducing Poverty through an Increase in Agricultural Yields

Growth in agriculture benefits the poor most or no other economic activity generates the same benefits for the poor. Recent research shows that a one per cent increase in agricultural yields reduces the percentage of people living on less than \$ 1 per day by between 0.6 and 1.2 per cent. No other economic activity generates the same benefits for the poor.

DFID, 2003. Agriculture and poverty reduction: unlocking the potential. A DFID policy paper (December 2003).

## Widespread Poverty in Bangladesh

At least 77 per cent of Bangladesh's 132 million people lack adequate food, according to a "poverty map" released in Bangladesh on the 26th of February, 2004 by the Dhaka authorities and the United Nations. The map showed that 77 per cent of the population did not have enough to eat, with 27 per cent of those at risk from malnutrition and categorized by the report as extremely poor.

Development Gateway, 2004. 77 Per cent Population of Bangladesh Lack Adequate Food: Poverty Map. <http://www.developmentgateway.org/>. News (26 February 2004).

## Potential to Improve a Crop of the Poor in Nepal

As previously indicated in CGPRT Flash, millet is a source of food and income for the poor in Nepal. However, despite some efforts from the research and development sector, the yield of finger millet has remained stagnant since 1997/1998 and the cultivated area has been decreasing each year since 1999/2000. The yield stagnation is attributed to low adoption of improved varieties and the declining trend of cultivated area could be due to increases in the area of maize, summer legumes (soybean, black gram) and summer vegetables. However, the vast difference between the research yield of 3.32 tons/ha (Upadhyay et al.) and the national average yield of 1.09 tons/ha (MoAC, 2003) shows that there is, hitherto, unrealized potential.

Shrestha, H. K., 2004. Status and Scope of Finger Millet in Nepal, Nepal Agricultural Research Council.

## Tough Competition Faced by Less Developing Countries' Producers

Producers of soybean, corn, and sorghum in developing countries continuously face tough competition from producers in the USA as the 2002 Farm Bill of the USA established national loan rates for each commodity. This loan rates are basically domestic support policy for the agricultural sector in the USA. For corn and grain sorghum, these rates will be \$ 1.95 per bushel and will remain at that level through 2007. The national soybean rate is unchanged at \$ 5.00 per bushel. On the contrary, developing countries could not provide this kind of support so that their producers have to face un-level playing ground.

USDA, 2003. USDA Announces 2004 Loan Rates for Corn, Grain Sorghum and Soybean, Release No. 0066.04 (5 February 2004).

## Implementing a Pro-Poor Trade Strategy

In Asia and the Pacific, the impact of trade liberalization on poverty has been mixed. The reputed benefits of trade liberalization have not reached the poor, especially those in rural areas. Therefore, pro-poor interventions that can compensate, at least for the adverse effects of liberalization, are required. These could run the gamut from the less controversial, such as improved social security (as advocated by the China case study), to the conventional responses, such as the provision of public goods and agricultural development. Moreover, trade policies should be linked with a pro-active industrial strategy in order to maximize the benefits for development to the most controversial, industrial policies (as advocated by the Indonesia case study).

Part of the explanation for the unequal distribution of the benefits of trade is the lack of a supply response from poorer farmers and small enterprises when increased trade has broadened economic opportunities. This is a particular problem in rural areas, where there is a lack of infrastructure, credit, marketing channels and public services. Poverty reduction strategies should be geared to address these shortcomings. Another part of the problem is the unequal distribution of benefits across countries. Some countries remain wary of completely opening up their economies because of the potentially devastating effects on their industrial and agricultural sectors, especially if industrial country's markets for exports of agricultural commodities and labour-intensive manufactures from developing countries remain protected ■

Based on McKinley, T., 2003. The Macroeconomics of Poverty Reduction, Initial Findings of the UNDP Asia-Pacific Regional Programme, Bureau for Development Policy, New York (August 2003).

## How Poverty can be Reduced by Developed Countries

Seventy per cent of the world's poorest people live in rural areas and depend on agriculture. The Millennium Development Goal of reducing poverty and halving the proportion of people earning less than \$ 1 per day can only be achieved by improving the lot of poor farmers and creating viable agricultural communities. Poor farmers cannot escape the poverty trap if they are forced to compete with products subsidized by the richest countries, in world trade and their own domestic markets. The elements of a solution include effectively pursuing the process of reform in market access, domestic support and export competition, while providing greater flexibility for developing countries to pursue rural development and food security. Most importantly, there is need for the EU, Japan and the United States to reduce subsidies, cut tariff and non-tariff protection, address tariff peaks and escalation. The recent decision to reform the EU's Common Agricultural Policy is a positive step, but this needs to be translated into ambitious negotiating proposals ■

Based on UNDP, 2003. UNDP Policy Statement on Trade Issues at Fifth World Trade Organization Ministerial Meeting, Cancun, Mexico (September 2003).

## Hunger is More a Political Rather than a Supply Problem

A new study of 53 developing countries with populations over 1 million found that high levels of child hunger was linked most to high levels of internal war and violence, political repression, arms trade, and population pressures. Food imports from governments and charities do some good, but their effects are modest when compared to political factors affecting the countries. Food supply is not the central issue and hunger is largely a political issue.

In countries without stable democratic governments, food is often used as a method of control by political leaders or by warring factions. In these cases, food is often not distributed to people who need it the most. Some researchers had argued that democratization can actually increase hunger in some cases because it can be politically destabilizing. However, this study does not support that view. Political democratization encourages economic growth and improvements in basic needs. Overall, the study shows that reducing hunger throughout the world is more than just a question of agricultural and economic development. Hunger is also a distributional problem, and the obstacles to improved distribution are primarily political. Conflict regulation, violence prevention, the reduction of international arms trade, and the protection of civil and political rights should be central to policies that address hunger ■

Based on Grabmeier, J., 2004. Worldwide Hunger More a Political Problem than a Supply Problem, Study Finds, <http://www.acs.ohio-state.edu>.

## Agricultural Bank to Support Agriculture in Viet Nam

Realizing the importance of a need of a specific bank giving services to support the agricultural sector that is in transition a position, the Government of Viet Nam reformed the bank system from a single state bank to a sectoral bank, including an agricultural bank in 1990. This bank offers credit not only to state enterprises and collectives but also to individual family farm as well. The Viet Nam Bank for Agricultural and Rural Development (VBARD) is the biggest formal credit provider to rural household in Viet Nam. For example, in Quang Nam province, there are 33 branches. The Bard's interest rates, ranging from 0.7-0.9 per cent per month, are determined within the interest rate framework specified by the State Bank of Viet Nam. The bank provides three kinds of loans, namely, short term (less than 12 months), middle term (between 12 months and 5 years), and long term (more than 5 years). Although the bank faces lack of staff relative to the number of borrowers, the credit repayments have shown a good performance, attaining to around 99 per cent ■

Based on Isager, L. and Khai, L. D., 2003. Viet Nam Bank for Agriculture and Rural Development, NIASnytt (No. 4, December 2003).

## Flash EVENT



### The World Congress on Industrial Biotechnology and Bioprocessing

21 - 23 April, 2004,  
The Walt Disney World Swan and Dolphin Hotel  
Orlando, Florida.

Contact:  
Kathy Stover  
Phone : (202) 962-9200  
[www.bio.org/worldcongress](http://www.bio.org/worldcongress)

### Copenhagen Consensus 2004 Today's Challenge - Tomorrow's Opportunities

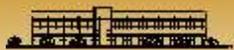
24 - 28 May, 2004  
Copenhagen, Denmark

Contact:  
Henrik Meyer  
Environmental Assessment Institute  
Linnésgade 18  
DK-1361 Copenhagen K  
Denmark  
Phone +45 7226 5800  
Fax +45 7226 5839  
Web: [www.copenhagenconsensus.com](http://www.copenhagenconsensus.com)  
Email: [info@copenhagenconsensus.dk](mailto:info@copenhagenconsensus.dk)

### VII International Oat Conference Born to be Functional

17 - 22 July, 2004  
The Scandic Continental  
Helsinki, Finland.

Contact:  
Professor Pirjo Peltonen Sainio  
MTT, Agrifood Research Finland  
Plant Production Research  
FIN 31600 Jokioinen, FINLAND  
[pirjo.peltonen.sainio@mtt.fi](mailto:pirjo.peltonen.sainio@mtt.fi)  
[Http://www.mtt.fi](http://www.mtt.fi)



## Book Review

# Engendering Developing Through Gender Equality in Rights, Resources, and Voice

A co publication of the World Bank and Oxford University Press, Washington, USA, ISBN 0-19-521596-6, 2001

One main point the book raises is that to address poverty, efforts should be made through addressing gender inequalities. The argument is at one level poverty exacerbates gender disparities while at another level gender inequalities hinder development. In popular terms, ignoring gender disparities comes at great cost. The cost is to people's well being, then to countries' ability to grow sustainably, then to govern effectively and then at the end to reduce poverty. It goes on to raise the question: what types of policies and strategies promote gender equality and foster more effective development?

The book examines much evidence on the effect of how gender inequality affects both women and men in the development of a nation. The book argues that policy makers have a number of policy instruments to promote gender equality and development effectiveness.

In the first part, the book presents that gender discrimination remains pervasive in many dimensions of life worldwide. The nature and extent of discrimination vary considerably across countries and regions. Gender gaps are widespread in: (i) access to and control of resources, (ii) in economic opportunities, and (iii) in power and political voice. Therefore gender equality is a core development issue a development objective in its own right.

The latter part of the book argues for a three-part strategy for promoting gender equality:

- (i) Encourage reform to establish equal rights and opportunities for women and men.
- (ii) Foster economic development to strengthen incentives for more equal resources and participation.
- (iii) Take active measures to redress persistent disparities in command over resources and political voice.

The book defines gender equality in a broad and comprehensive way, covering: (i) equality under law, (ii) equality of opportunities, including equality of rewards for work, equality in access to human capital and other productive resources that enable opportunity, and

(iii) equality of voice, which is the ability to influence and contribute to the development process. Therefore the title of the book itself shows that gender equality covers equality in rights, resources, and voice. What seems to be common sense or general knowledge but has never been systematically proven, the book found that gender disparities tend to be greatest among the poor.

The book finally puts several important challenges for the future. The key challenge is how to deepen understanding of the links between gender equality and development and how to reflect these links in policy decisions. A second challenge is for the policy makers to be forward-looking in the face of rapidly changing circumstances. How to address emerging issues with a gender perspective, including globalization, decentralization in government, the spread of HIV/AIDS, and the aging of the world's population. A third critical challenge is for policy makers to broaden their partnership with civil society groups, donors, and others in the international community ■

*Reviewed by* Erna M. Lokollo, Programme Leader, UNESCAP CGPRT Centre, Bogor, Indonesia.



## Announcement

### The New Director General of CIP

Dr. Pamela Anderson was appointed as the next Director General of the International Potato Center (CIP). The appointment was announced by Jim Godfrey, the Chair of CIP's Board of Trustees on March 8, 2004.