



**United Nations Industrial  
Development Organization**



**International Fund for Agriculture  
Development**



**Food and Agriculture  
Organization**

## **THE IMPORTANCE OF AGRO-INDUSTRY FOR SOCIO- ECONOMIC DEVELOPMENT AND POVERTY REDUCTION<sup>1</sup>**

**DISCUSSION PAPER:**

**UN COMMISSION ON SUSTAINABLE DEVELOPMENT  
16TH SESSION, NEW YORK, 5 – 16 MAY 2008**

**PREPARED FOR SIDE-EVENT ON:**

**“HOW AGRO-INDUSTRY CAN HELP ERADICATE POVERTY”  
9 MAY 2008**

---

<sup>1</sup> *This document has not been edited officially*

## INTRODUCTION

Agro-industry, i.e. the processing, preservation and preparation of agricultural production for intermediate and final consumption<sup>2</sup>, performs a number of crucial functions that support development and poverty alleviation. This paper argues therefore that agriculture in connection with industry needs to be recognised by senior-level policy makers and industry leaders as a competitive, value-adding business sector, that has a positive development impact and contributes to economic growth. Rather than focusing on agricultural productivity only, policy makers must consider the competitiveness of the entire agro-value chain. A comprehensive approach could include e.g. supporting small agro-producers and SMEs, enabling market access and developing a supportive institutional environment.

## IMPORTANCE OF AGRO-INDUSTRY FOR DEVELOPMENT

### 1. Employment and income generation

Agro-industry plays a fundamental role in employment creation and income generation. Particularly the food and beverages processing sector remains important at all levels of economic development.<sup>3</sup> Within the EU it is a leading employer with 13% of employment in manufacturing, in the US it is the third most important sector with 9% of total manufacturing employment. Taking only into account countries where data is available the ILO calculates global employment in the formal food and beverages sector at 22 million. However, one should bear in mind that in developing countries an estimated average of 60% of workers in food and beverages are employed in the informal economy. In addition to the direct employment effect, vibrant agro-industry is found to generate employment in downstream and upstream sectors such as agriculture, commerce and services.

Agro-industry can play a strategic role in pro-poor growth strategies, particularly in developing countries where 75% of the poor live in rural areas. As possibilities for income generation are restricted in rural areas, rural non-farm earnings from trading, agro-processing, manufacturing, commercial, and service activities constitute a significant part of household income. For developing countries as a whole, non-farm earnings account for 30 to 45% of rural household income. They complement agricultural wages and serve household risk diversification and the evening out of consumption patterns. With low capital requirements and undemanding local marketing channels the rural non-farm economy offers opportunities for poor households (particularly women headed households), small-scale farmers and other smallholders, representing an important instrument for rural poverty alleviation. The development of agro-industry can also have an important impact on the local agricultural sector as well as the livelihoods of small holder farmers, provided they can produce on a stable basis, supplying regular quantity and quality.

---

<sup>2</sup> According to the International Standard Industrial Classification (ISIC) agro-industry consists of: i) food and beverages; ii) tobacco products; iii) paper and wood products; iv) textiles, footwear and apparel; v) leather products; and vi) rubber products.

<sup>3</sup> The following is based on Wilkinson and Rocha (2008).

In terms of employment composition, rural industries (manufacturing) account for approximately one fifth of rural non-farm employment, consisting mostly of occupations in agro-industries. Indirectly, however, other activities such as commerce and retailing, construction, equipment manufacture, transport, logistics and trade are typically associated with agro-related manufactures and agribusiness.

**Table 1. Composition of Rural Non-Farm Employment by World Regions**

	Nonfarm Share of Rural Workforce	Women's Share of Rural Nonfarm Employment	Rural Nonfarm Employment Shares				Total Rural Nonfarm
			Manufacturing	Trade & Transport (1)	Financial and Personal Services(2)	Construction, Utilities, Mining and Other(3)	
Africa	10.9	25.3	23.1	21.9	24.5	30.4	100
Asia	24.8	20.1	27.7	26.3	31.5	14.4	100
Latin America	35.9	27.5	19.5	19.6	27.3	33.5	100
West Asia and North Africa	22.4	11.3	22.9	21.7	32	23.2	100

Notes:

1. Trade and transport includes wholesale and retail trade, transport and storage.
2. Other services includes finance, insurance and community and social services
3. Other includes mining and quarrying, utilities, construction and other non-classified activity.
4. Country data weighted by size of total primary work force.

Source: 31 population censuses as summarized by Hazell, Haggblade and Reardon (forthcoming). Regional aggregates weight country data by size of total primary workforce.

Source: Haggblade, Hazell and Reardon (2005).

The importance of agro-industry for employment is further emphasised by high and increasing levels of female involvement, especially in the non-traditional, high-value agro-chains (i.e. horticulture, fruits and fish products). Female employment in such sectors can range between 50 and 90% (Box 1). However, strong gender segmentation in production and processing tends to consign women to more vulnerable forms of work (casual, temporary and seasonal), lower paid and more labour-intensive preparation and/or processing.

**Box 1.** In the Dominican Republic, women comprise roughly 50% of the labor force employed in horticulture processing; in Mexico, the share of women engaged in packaging is 80-90%; in Zimbabwe women represent 91% of horticultural workers; in Chilean fruit production, female employment increased almost 300% between 1982 and 1992, an impressive pattern when compared to a national growth rate of 70% for the female labor force; and in Ecuador, Kenya and Uganda, women represent respectively 70%, 75%, and 85% of workers in horticulture, to name but a few examples. *Source: Wilkinson and Rocha (2008).*

## 2. Contribution to GDP and manufacturing

An extended definition of the agro-processing sector which includes not only agro-industries but also distribution and trading activities, would roughly account for more than a third of the GDP in Indonesia, Chile, Brazil and Thailand, and between 20 and 25% in Sub-Saharan countries. The entire food system, including the production of primary goods and commodities, marketing and retailing, would account for more than 50% of developing countries' GDP (based on World Bank, FAO and UNIDO databases).

Trends illustrate that there are large value-adding opportunities in agro-industry relative to agriculture. In low and middle income countries (see World Bank classification of developing countries according to income) the food processing sector is typically one of the largest industrial activities in terms of value-adding. Using the UNIDO Industrial Statistics Database 2005, agro-processing value added as a share of GDP amounts to 4.3% for low income countries and 5% for lower middle and upper middle income countries. This, however, neglects artisan production and the informal sector, which are particularly important in low income countries. We can therefore safely assume that the figures heavily underestimate the true extent of agro-industry's contribution to GDP in those countries.

Within manufacturing, the agro-processing sector occupies a significant position in overall turnover and value added in developing countries – though huge heterogeneity may exist among them. On average, productivity levels in food processing are above the manufacturing average, making it one of the more efficient economic sectors in least developed countries (classified according to the Human Development Index). Incremental investment here could benefit the overall competitive position of the countries in question (based on UNIDO Industrial Statistics Database 2005).

**Box 2.** The agro-processing sector contributes more than 50% of total manufacturing value added in low income countries, 36% lower middle and 32% upper middle income countries. Or, put differently, agro-industry contributes a share of 61% to total manufacturing in agriculture-based countries, 42% in countries in transformation and 37% in urbanised developing countries (WDR 2008).  
*Source: Wilkinson and Rocha (2008)*

### 3. Promotion of socio-economic development

Strong synergies can exist between agro-industry, agriculture and poverty alleviation. Agro-industry provides capital and services to farmers (e.g. seeds and equipment, training, production and market information), promotes entrepreneurship, raises demand for agricultural products and connects farmers with markets through the handling, processing, marketing and distribution of agricultural products. As a result, productivity and quality of agricultural production, farm returns, economic stability for rural households, food security and innovation throughout the value chain can be enhanced. Efficient agro-industry can therefore spur agricultural growth, and – accompanied by a strong link with smallholders – reduce rural poverty.

As economies become more sophisticated, economic structures are transformed and capital and labour are transferred from agriculture to the expanding agro-industrial and related service sectors. Accordingly, the agribusiness-to-agriculture ratio increases. In the U.S. agribusiness contributes 13 times more to GDP than agricultural

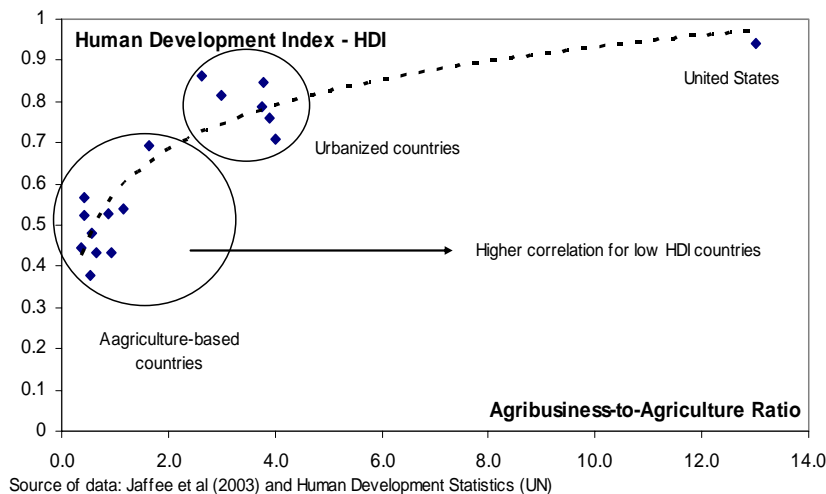
**Box 3.** Many experiences in Latin America, Asia and Africa (e.g. Brazil, Chile, China, Kenya, Mexico, South Africa, Taiwan and Thailand) have demonstrated the potential of agro-based SMEs for value-adding, employment generation and improvement of farm and rural non-farm income, food security and rural living standards. In Africa, where a weakening and even collapse of public services has resulted in dysfunctional input and output markets and a breakdown in the delivery of agricultural services to small-scale farmers, local agro-enterprises are also increasingly filling crucial institutional gaps, particularly for commercial crops.

activities; in urbanized developing countries the ratio remains at 3.3; in transforming countries it falls below 2 and in agriculture-based countries it reaches merely 0.6 (Wilkinson and Rocha, 2008).

Crucially, the contribution of activities which define an increasing agribusiness-to-agriculture ratio (e.g. agro-related

industries and distribution services) is highly correlated with basic measures of socio-economic development. Although such relationship can be expected, it is particularly strong for countries at low levels of human development, mostly agriculture-based countries. (The ultimate allocation of wealth produced by the value chain, however, will depend, amongst others, on the bargaining powers of intermediaries, agro-food processors and farmers).

**Figure 1. Correlation between Human Development and the Agribusiness-to-Agriculture Ratio**



#### 4. Stabilization and regeneration

The development of rural agro-industries can play a major strategic role in stabilising and regenerating countries and in consolidating rural and regional development. It can do this by providing employment and supporting wealth creation and economic growth in a decentralised manner in areas that have been affected by internal conflicts, natural catastrophes or out-migration resulting from uneven regional development.

Developing agro-industry in such areas promotes a more balanced, decentralised growth within the country by generating productive employment alternatives. It thus not only reduces migration, especially of young unskilled labour into crowded cities, but it can even reverse migration trends by offering new employment opportunities in those affected areas, thereby alleviating social pressures and demands on public services within the city.

#### 5. Integration into global markets

By introducing and accelerating technical innovations, promoting entrepreneurship and improving business practices along the chain, agro-based SMEs not only provide access to new domestic market outlets, but can essentially act as a launching pad for the integration of developing countries into global markets.

Developing countries have a natural comparative advantage in global markets in many agro-industry sectors. They have shown that they can be competitive in traditional tropical crops, but also in non-traditional exports and in components of the animal protein complex. Non-traditional food exports such as fruits, horticulture and

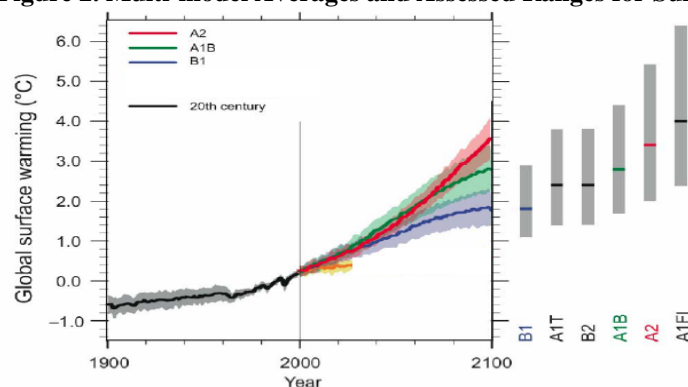
fish products, as well as livestock products, have already become an important part of exports. However, due to protective trade regimes and distorted tariffs in developed countries, developing countries have been unable to increase their overall market share in world agricultural trade (including agricultural raw materials, fisheries, processed food, beverages and high-value products) since the 1980s.

Despite continuing barriers to trade, it is believed that developing countries can identify and explore export market opportunities by developing their agro-industry. The markets for organic, fair trade and origin products, for instance, are high-value outlets for agricultural products and demand from developed and some middle-income developing countries has been growing strongly over recent years. With the help of a competitive agro-industry that increases value-added and improves product safety and quality, the efficiency of technical processes and business practices, access to such potentially lucrative speciality markets would be facilitated. Crucial for successful integration into global agro-markets, however, are also issues such as adherence to standards, quality consistency, volume requirements and timely delivery.

### CHANGING ENVIRONMENT FOR AGRO-INDUSTRY

Emissions of carbon dioxide, methane and other greenhouse gases are changing the future world climate and raise new challenges for agriculture (e.g. via solar radiation, temperature and precipitation). Climate change, including global warming and increased climate variability, is considered to significantly impact on food supply and food security. The effects include a shift in climate and agricultural zones towards the poles, changes in production and precipitation patterns and increased vulnerability of the landless and the poor. In terms of global food supply, stability will be affected by an increase in climate variability and extreme weather events, as well as higher crop vulnerabilities to infection, pests and weeds as a result of changing weather patterns.

**Figure 2. Multi-model Averages and Assessed Ranges for Surface Warming**

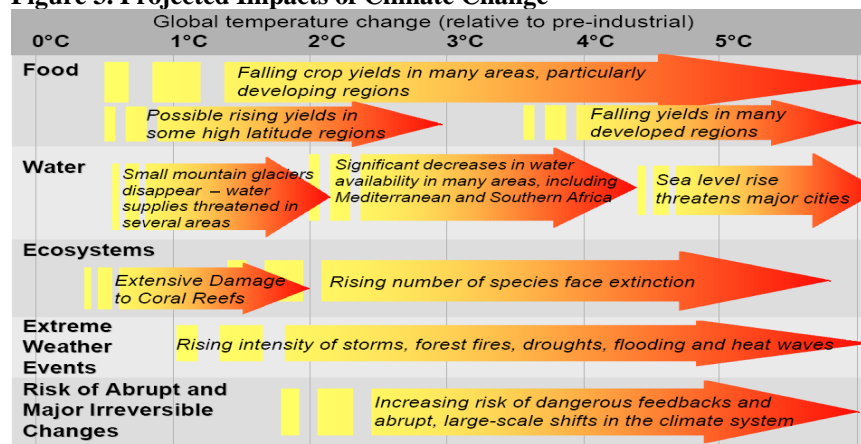


Source: IPCC (2007)

Developing countries are considered vulnerable to climate change due to their location in mostly lower and warmer latitudes. Furthermore, their resources to deal with the effects of climate change are usually inadequate. The most negative impact will therefore be in areas where food production is already deficient today.

**Box 4.** It has been estimated that agricultural production may fall by 30 to 40% in India and 20% or more in Africa and Latin America by 2080. The area most severely affected by declining agricultural production will be Sub-Saharan Africa, where countries like Sudan and Senegal could face agricultural collapse with a food production decline of more than 50%.  
Source: Cline (2007)

**Figure 3. Projected Impacts of Climate Change**



Source: Stern (2007)

As fears over climate change increase and oil prices continue to rise, bio-fuel production in Europe, Asia and the Americas has surged. While offering an alternative to fossil fuels, the expansion may be controversial in some regions – both environmentally and politically. By converting food to energy crops (e.g. wheat, soy, palm oil, corn and sugarcane), bio-fuel production is often considered one of the drivers of food cost inflation and food security deterioration. Other factors that have been identified as drivers include increasing demand for food, rising energy costs, speculation in commodity markets, droughts in Australia, frosts in the American Midwest, and market distortions caused by agricultural subsidies in high-income countries.

Past months have seen further unprecedented increases in food prices. As of March 2008 prices for corn, rice, soya and wheat were, respectively, 31%, 74%, 87% and 130% higher than a year earlier. This seriously affects food security in poorer countries, especially those importing staple food (e.g. West Africa) and those with a large number of landless labourers (e.g. Bangladesh). According to World Bank estimates, food inflation threatens to push at least 100 million people into poverty. Alarmingly too, it has already triggered social and political unrest, e.g. in Cote d'Ivoire, Egypt, Haiti and Burkina Faso, and threatens to undermine many UN stabilization efforts.

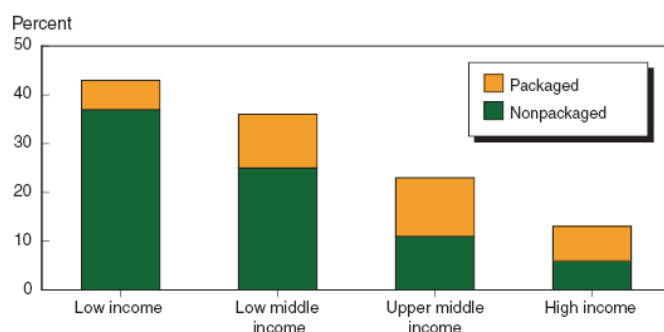
The implications for the agro-food industry are evident: raw material sourcing will become a greater challenge with food price inflation and in areas where food production is negatively affected by climate change or where demand for bio-fuel raw materials is strong. At the same time, the contribution of the agro-food industry to raising food security in those developing countries will be ever more important. As the bulk of the output of agro-industries in developing countries is destined for the domestic market, their performance needs to be improved for domestic food supply. Through enhancing efficiency in agro-industries, costs can be reduced to be competitive with imported commodities and/or to contribute to the reduction of soaring food prices in the local market.

## 1. Markets in developing countries

Already around 80% of global food and beverage sales consist of processed products, with 60% being consumed in high income countries (Wilkinson and Rocha, 2008). Although households in developing countries spend a large share of total expenditures on food, most is on non-processed products (Figure 4). In 2002, per capita retail sales of packaged food in high income countries were more than 15 times the value found for low income countries. But growth in consumption of packaged food is fastest in the developing countries: 7% in upper middle, 28% in lower middle and 13% in low income countries, compared to just 2 to 3% per year in high income countries (1996-2002). Such high growth can be expected to continue:

- ***Ongoing population growth and growth in per capita consumption*** (changing diet and increasing variety and quality of products with rising incomes) drive demand for processed foods and services embodied within the products.
- ***Increased ownership of refrigerators and microwave ovens*** promote greater household purchases of perishable and frozen foodstuffs, and higher consumption of prepared foods and ready meals.
- ***Internationalisation of retail*** supports a shift in consumption patterns.
- ***Urbanisation*** (population growth in developing countries is increasingly an urban phenomenon) increases the importance of food preservation and convenience.
- ***Further demographic changes*** (e.g. increasing participation of women in the labour market, ageing of the population and rising importance of single-person households) will drive sales of ready meals, convenience food and food services.

**Figure 4. Food Share of Total Expenditures by Group of Countries (2002)**



Source: Regmi and Gehlhar (2005), based on Euromonitor.

Despite these healthy growth prospects, domestic agro-industrial development might be threatened by increasing imports. Deregulation and the integration of developing country markets into global trade and investments also mean that growth of the domestic market does not necessarily translate into increased domestic industrial activity. In fact, least developed countries have become on average significant net food importers.

## 2. Niche and speciality markets

Although a major share of agro-industrial output in developing countries is consumed domestically, various niche and speciality export markets can provide further opportunity for an agro-industry expansion in developing countries:

- ***Organic food and drink*** world market was estimated at US\$24 billion in 2005, the EU accounting for 52% and the U.S. for 42%. Together they accounted for almost 95% of global sales, of which approximately 40% were imported. Despite a slow-down since the 1990s, the sector's current growth rate is still estimated at between 8-12% per year in Europe and 14-20% in the U.S (Wilkinson and Rocha, 2008).
- ***Fair trade***, which evolved from the coffee sector, is much smaller with approximately €1.6 billion in 2006 (Wilkinson and Rocha, 2008). Fair trade standards exist for food products such as tea, coffee, cocoa, honey, juices, wine grapes, fruit and vegetables, nuts and spices, and non-food products such as flowers, plants and seed cotton.
- ***“Origin-based” products*** associate quality with social and cultural values relating to collective local development. Many new features are incorporated, such as indigenous products, non-food products and products associated with the values of sustainability.
- ***“Functional” or nutritionally enhanced foods*** are expected to be a major source of market opportunities in the long-term. They respond to increasing preoccupations with health issues and food safety, which have generated such modified products and acted as a major innovation driver in the food industry.

These various niche markets certainly provide important export opportunities and development stimuli for agro-industry in developing countries. It may, however, be questioned whether they can provide a viable perspective for an entire sector.

## 3. New technologies

As competition in markets for traditional products increases and pressures to meet the growing demand for food rise, agro-industries will need to increase the application of existing technologies and develop new ones which maximise the use of raw material inputs. A number of practical technologies, which are already widely used in the agro-industries of high income countries, can be transferred and adapted in developing regions: e.g. packaging, pre-processing at farm levels, traceability technologies, cold stores and chains, as well as the information and communication technologies underlying inter-firm logistics and business planning.

In terms of new technologies, biotechnology, for instance, has the potential to produce crops better suited for changing climate, soil, as well as processing conditions (e.g. higher starch content, better quality proteins, or modified oils and fats). New industrial materials will be derived from biomass (plants and bacteria), which may, as economies of production change, replace part of today's fossil-based, synthetic materials and plastics. Similarly, numerous other energy efficient, environmentally friendly technologies, including bio-processing, non-thermal, and drying

technologies, will be increasingly important in preserving scarce natural resources, improving food availability and promoting social and economic sustainability.

The transition to a knowledge-based bio-economy is already underway in many parts of the world, fuelled by massive investments and new policy measures to sustain the new industries. The development of global agro-industrial complexes will dictate additional changes in technological patterns. Developing countries must consider introducing innovative technologies, including the manufacture of high value bio-related products such as speciality chemicals, tailor made enzymes, vaccines, drugs and bio-pesticides, if consistent with the overall development strategy. But this will require new levels of international cooperation to bring about the technological competencies, environmental, energy and processing improvements needed to compete. Otherwise, both domestic and foreign markets will risk being closed to the developing world.

#### HOW TO CREATE AN ENABLING ENVIRONMENT FOR AGRO-INDUSTRY

The natural advantages of many agriculture-based countries have not always been realised in terms of competitive agro-industrial and economic development. Some of the reasons are inadequate government spending on education, R&D and infrastructure, a non-conducive investment climate, and poor access to technologies and energy. Creating a 'pro-productivity business environment' and a supportive policy framework are key prerequisites for successful domestic and export-oriented agro-industry. Policy makers need to look at the large policy context, but there are also aspects that are distinct for agro-industries (see FAO, 2008). The following are major elements of an enabling business environment:

- **Macro policies**
  - *Stabilization policies* aim at minimising macroeconomic shocks. They include fiscal and monetary reforms as well as the creation of functioning regulatory institutions. Macroeconomic stability is crucial for investment and financial support policies in agro-industry development and for aggregate demand.
  - *Allocation policies* should balance the structure of expenditures on agriculture, R&D, education and infrastructure, all of which are important components of a competitive agro-industry environment. E.g., in terms of infrastructure, access to financial assets, input and output markets, to energy and information are fundamental challenges.
  - *Re-distribution policies* should prioritise education and human resource development in order to provide the skill base necessary to develop a competitive agro-industry.
  - *Demand policies* can support consumption where needed.
- **Sector specific policies** should address sector specific institutions and regulatory frameworks, which are not necessarily contingent upon macroeconomic approaches and can be implemented independently, e.g.:
  - *Strengthening of links* between SMEs, agricultural producers or small holder producer organisations and cooperatives, other market intermediaries such as traders, processors or transporters, and rural or urban businesses.

- *Quality and food safety regulations.*
- *Market distortions, lack of information and uncertain property rights.*
- *Investment and basic services:* specifically, there is the need to address infrastructure and basic services constraints to SME growth such as the poor quality of the rural roads needed to link SMEs to markets, inadequate water and electricity supplies and ineffective communication networks.

<b>THE ROLE OF THE UN SYSTEM AND THE INTERNATIONAL COMMUNITY</b>
--

The UN and the international community can respond to the various challenges ahead. Governments can be supported at the technical level and be advised on policy aspects. This would require a high level of commitment from assisted countries, in particular strict standards of governance and integration within key Ministries. The UN believes that it is through such cooperation that a broader base of inter-related policies and institutional support and coherence may be framed and thus the aim of diversifying the production base away from primary products in favour of adding value through further processing may be reached.

UNIDO, as the Agency within the UN system responsible for the promotion of sustainable industrial growth, is of the opinion that particularly agro-industries can play a key role in the overall development process by creating jobs and private wealth and thereby accelerating and sustaining growth. UNIDO is convinced that at the core of the achievement of long-term poverty reduction is private wealth creation based on industrial development, coupled with vibrant entrepreneurship, and diversification into higher-value products, thereby leading to successful domestic and foreign trade.

FAO has the mandate within the UN system for the development of the agricultural sector, including agro-industry aspects of agricultural sector development. The Rural Infrastructure and Agro-Industries Division advocates and supports the development of entrepreneurship in agricultural support services. It assists with appropriate policies, strategies and methodologies for strengthening agricultural support systems and the delivery of services and technologies for production and post-production activities.

IFAD's mandate is to enable poor rural people to overcome poverty. One of IFAD's strategic objectives for promoting agriculture and rural development is to create opportunities for rural off-farm employment and enterprise development. Crucial to attaining such objective is the availability and strength of local financial services. To prosper and grow, MSEs must have access to commercial banks, micro-finance institutions, micro-leasing companies, etc., as well as infrastructure (rural roads, water, electricity) and communication services.

To realize the fundamental contribution that agro-industries can make to the lives of so many in this world who have so little, however, it is important to identify how the UN family (UNIDO, FAO, IFAD and other agencies) and their development partners in Governments and civil society around the world can all work better together. Most crucially, a number of strategies must be developed within the framework of concrete and effective international cooperation, e.g.:

- strategic policy on agro-industrial competitiveness;
- policies for inclusion of small agro-producers in supply chains;
- support for SMEs through capacity-building, clustering and technology transfer;
- participation in development of technical and monitoring services for achieving market access;
- provision of services for building up capabilities for sustainable market access;
- development of consumer protection policies;
- active role in harmonizing and ensuring the transparency of quality standards; measures to ensure that agro-industrial development is compatible with environmental and social sustainability to avoid “the race to the bottom” trap;
- as well as negotiation of standards and conditions of access in international forums.

In conclusion, it should be noted that the *Global Agro-Industries Forum*, recently held in New Delhi as a joint initiative by FAO, UNIDO and IFAD, represented an important milestone for agro-industries development efforts internationally. The event, which brought together over 500 participants from 110 countries, highlighted the importance of agro-industries for economic development and poverty reduction and allowed the prioritization of key areas for immediate and future action by the three agencies, in their efforts to foster the development of sustainable, competitive and inclusive agro-industries.

### **References**

- Barrientos, S. (1997), “The Hidden Ingredient: Female Labor in Chilean Fruit Exports”, *Bulletin of Latin American Research* 16 (1), pp. 71-81.
- Barrón, A. (1999), “Mexican Women on the Move: Migrant Workers in Mexico and Canada”, in Barndt, D. (ed.), *Women Working the NAFTA Food Chain: Women, Food and Globalization* (Toronto: Second Story Press), pp. 113-26.
- Cline, W. R. (2007), *Global Warming and Agriculture: End-of-century Estimates by Country*, (Washington, D.C.: Institute for International Economics).
- Dennis, C., J. M. Aguilera, and M. Satin (2008), *Technologies Shaping the Future*, Paper for Global Agro-Industries Forum, April 2008 (Draft).
- Dijkstra, T. (2001), *Export Diversification in Uganda: Developments in Non-Traditional Agricultural Exports*, ASC Working Paper 47 (Leiden: African Studies Centre).
- Dolan, C and K. Sorby (2003), *Gender and Employment in High-Value Agriculture Industries*, Agriculture & Rural Development Working Paper 7 (Washington, D.C.: World Bank).
- Economist (2008), *The New Face of Hunger*, 17 April 2008.
- Economist (2008), *The Silent Tsunami*, 17 April 2008.
- FAO, IFAD and WFP (2008), *High Food Prices: Impact and Recommendations*, CEB 2008 Retreat – Food Security.
- FAO (2008), *Enabling Environments for Competitive Agro-Industries*, Paper for Global Agro-Industries Forum, April 2008.
- FAO (2007), *Challenges of Agribusiness and Agro-Industry Development* (Rome: FAO).

FAO (2007), *Enabling Environments for Agribusiness and Agro-Industry Development in Eastern Europe and Central Asia*, Proceedings of FAO Workshop Budapest, Hungary, 30 November - 2 December 2006 (Rome, Italy: FAO).

FAO (2003), *Impact of Climate Change on Food Security and Implications for Sustainable Food Production*, Committee on World Food Security, Twenty-ninth Session, Rome 12-16 May 2003, <http://www.fao.org/DOCREP/MEETING/006/Y9151e.HTM>, accessed on 14 April 2008.

Fukunishi, T., M. Murayama and T. Yamagata (2006), *Industrialization and Poverty Alleviation: Pro-Poor Industrialization Strategies Revisited*, UNIDO Research Programme, Combating Marginalization and Poverty Through Industrial Development (COMPID) (Vienna: UNIDO).

Haggblade, S., P. Hazell, and T. Reardon (2005), *The Rural Nonfarm Economy: Pathway out of Poverty or Pathway in?* Paper presented at the Future of Small Farms Conference, June 25, Wye, UK.

Humphrey, J. and O. Memedovic (2006), *Global Value Chains in the Agrifood Sector*, UNIDO Working Paper (Vienna: UNIDO).

Jaffee, S., R. Kopicki, P. Labaste and I. Christie (2003), *Modernising Africa's Agro-Food Systems: Analytical Framework and Implications for Operations*. Africa Region Working Paper Series No. 44 (Washington, D.C.: World Bank).

Lingohr, S. (2007), *Rural Livelihood Diversification and the Post-harvest Agro-Economy: A Study of China, with Special Reference to the Sweet Potato Processing Sector in Sichuan Province* (unpublished PhD Thesis).

Lingohr, S. (2007), "Rural Households, Dragon Heads and Associations: A Case Study of Sweet Potato Processing in Sichuan Province", *China Quarterly* 192, pp. 898-914.

Raynolds, L. (1998), "Harnessing Women's Work: Restructuring Agricultural Land and Industrial Labor Forces in the Dominican Republic", *Economic Geography* 74 (2), pp. 149-69.

Regmi, A. and M. Gehlhar (2005), *Factors Shaping Global Food Markets*, in Regmi, A. & M. Gehlhar (eds.), *New Directions in Global Food Markets*, Agriculture Information Bulletin Number 794 (Washington, D.C.: USDA).

Sacks, L. and C. Rosenzweig (2007), *Climate Change and Food Security*, The Climate Institute, <http://www.climate.org/2002/topics/agricul/index.shtml>, accessed on 14 April 2008.

Stern, N. (2007), *The Economics of Climate Change: The Stern Review* (Cambridge: Cambridge University Press).

UNEP (2007), Intergovernmental Panel on Climate Change Source, [www.ipcc.ch/SPM2feb07.pdf](http://www.ipcc.ch/SPM2feb07.pdf).

UNFCCC, *Climate Change Information Kit*, [http://unfccc.int/essential\\_background/background\\_publications\\_htmlpdf/climate\\_change\\_information\\_kit/items/305.php](http://unfccc.int/essential_background/background_publications_htmlpdf/climate_change_information_kit/items/305.php), accessed on 14 April 2008.

UNIDO (2005), *UNIDO Industrial Statistics Database 2005* (Vienna: UNIDO).

Wilkinson, J. and R. Rocha (2008), *The Agro-Processing Sector: Empirical Overview, Recent Trends and Development Impacts*, Plenary Paper for Global Agro-Industries Forum, April 2008.

World Bank (2008), *World Development Report 2008: Agriculture for Development* (Washington, D.C.: World Bank).

World Bank (2008), *Rising Food Prices: Policy Options and World Bank Response*, CEB 2008 Retreat – Food Security (Washington, D.C.: World Bank).

**More information can be found at:**

- <http://www.unido.org>
- <http://www.fao.org>
- <http://www.ifad.org>
- <http://www.gaif08.org>