

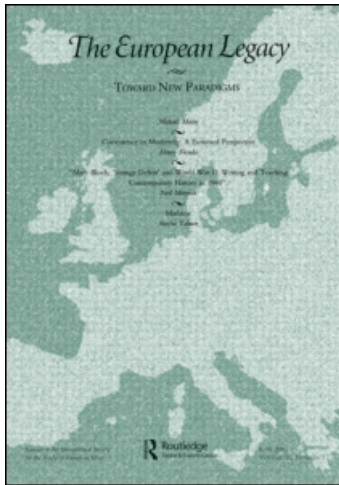
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Agriculture, Trade and Sustainability

Erkan Rehber Prof. Dr. ^a; Libor Grega Assoc. Prof. Dr. ^b

^a Agricultural Faculty, Department of Agricultural Economics, Uludag University, Gorukle-Bursa, Turkey ^b

Faculty of Business and Economics, Mendel University of Agriculture and Forestry, 613 00 Brno, Czech Republic

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Agriculture, Trade and Sustainability

ERKAN REHBER AND LIBOR GREGA

ABSTRACT *In recent decades there has been growing concern about the combined undesired consequences of rapid economic growth, based on the free market movement, and developments in science and technology. This concern has placed the sustainable development concept on the world's agenda. The notion of sustainability, which originally referred mostly to the environmental consequences of human activities, along with their economic and social aspects, has been discussed not only at the national and the global levels but also in relation to particular sectors of the economy. One such sector is agriculture, which to be sustainable must be ecologically sound, economically viable, and socially responsible. Unless current trade and agricultural policies are geared to creating such a structure, sustainability will be no more than a myth in the industrialized and globalized world, while considerable numbers of people will be left struggling with hunger and poverty. Ethical, fair trade and ecologic agricultural practices, such as organic farming, have been suggested as alternatives to existing practices. However, with their current and potential size, these alternatives cannot compete with existing production and trade systems. But these alternatives nevertheless highlight the main problems of current day free trade and industrialized agriculture structures and their related solutions.*

This paper reviews the concepts of sustainable development and sustainable agriculture: it raises the question whether the world-wide free market economy is really free, and it considers the undesired consequences of this economy by focusing on the relationship between sustainable agriculture and agriculture-related trade policies.

INTRODUCTION

Free market economy, based on the idea that it benefits everyone, has for many years been widely supported. Following World War II, bilateral and multilateral agreements were made among different countries, to create free trade and economic cooperation regions, such as NAFTA (the North American Free Trade Agreement), EFTA (the European Free Trade Agreement), and the EU (the European Union). Since the 1950s, leading countries as well as global institutions, including the World Trade Organization (WTO), the World Bank (WB) and the International Monetary Fund (IMF) have exerted their power to create a liberal, international trading system as the best way to produce overall gains.¹ The trade liberalization movement which began in 1947 with the

Erkan Rehber, Prof. Dr., Agricultural Faculty, Department of Agricultural Economics, Uludag University, 16159, Gorukle-Bursa, TURKEY, Email: rehber@uludag.edu.tr. www.ereconomics.com. Libor Grega, Assoc. Prof. Dr. Faculty of Business and Economics, Mendel University of Agriculture and Forestry, Zemedeska 1, 613 00 Brno, Czech Republic. Email: grega@mendelu.cz

signing of the GATT agreement (General Agreement on Tariff and Trades) was succeeded by the WTO, established in 1994.

Along with a free market dominated globalized economy, there has been rapid industrialization as a result of new technologies and scientific innovations. In recent decades the undesired consequences of this rapid economic growth have caused growing concern and given rise to the notion of *sustainable* development. The concept of sustainability, which originally referred to environmental consequences of human activities, has been widely discussed not only at the national but at the global level, as well as in particular economic sectors. Agriculture is one of the main sectors which many believe should be sustainable, that is, ecologically sound, economically viable, and socially responsible. This is so because agriculture provides basic human needs, and in most developing countries it is an important source of national income, foreign trade and employment. Agriculture is also a multi-functional sector which is closely related to the environment.

It is now generally believed that the WTO agricultural trade rules combined with the liberalization pressures of international financial institutions have had adverse effects on agriculture in most developing and underdeveloped countries. Inadequate and one-sided policies have exacerbated social ills such as poverty, hunger and inequality. In the European context, some authorities now question whether the recent CAP reform and the ongoing debates about agriculture in the WTO's agenda will serve to create a sustainable agriculture or whether sustainability is a myth. This debate is also valid for the highly industrialized and globalized world. Specific questions that need to be addressed include the special treatment of the developing world in the WTO, whether or not to promote environmental friendly practices such as organic farming, and whether limited activities of fair and ethical trade would provide solutions for the world's economic problems.

This paper reviews the concepts of sustainable development and sustainable agriculture. It raises the question whether or not the present world-wide free market economy is really free, and discusses the main undesired consequences of this movement focusing on the relationship between sustainable agriculture and trade policies related to agriculture, in general, both for the developed and developing countries and for the EU.

SUSTAINABILITY AND AGRICULTURE

Sustainability has been an exceedingly popular word over recent years, used for almost every activity in human life. The concept itself sounds good but is difficult to define precisely.² The word *sustain* from the Latin *sustinere*, to keep something in existence or maintain it, implies long-term support or permanence.³ Sustainability can not mean "forever." It is a way of asserting the value of longevity in intergenerational justice, while recognizing mortality and finitude.⁴ There are a number of concrete definitions of sustainability, although the concept means different things to different people.⁵ It originates in the concept of "sustained yield" which first emerged in the scientific forestry in Germany in the late eighteenth century. The concept was not only related to forests but was an instrument of a strong state for ordering social and economic conditions which stood as a necessary counterweight to emergent laissez-faire capitalism.⁶

As a concept *sustainability* can be dated back to Aldo Leopold's "Land Ethic," when in 1949 he emphasized the paramount importance of the health of ecosystems: "an environment policy is right if it preserves the integrity of an ecosystem and wrong if it does not." This view is the logical root of the term that today is called sustainability.⁷

In general, the term *sustainability* has been used in reference to development, as suggested by its most widely known definition issued by the World Commission Environment and Development (WCED) (The Brundtland Commission 1987). The Commission defined sustainable development (SD) as: "development that meets the needs of the present without compromising the ability of future generations to meet their own needs."⁸ According to the Commission, there are two kinds of approach to sustainability. One approach is *weak sustainability* (WS), which decouples economic activity and environmental impact and according to which the environment is simply another form of capital. WS is based on a very strong assumption: the perfect substitution between different forms of capital. The second approach is *strong sustainability* (SS), which is based on the assumption that the perfect substitution between different forms of capital is not valid. The basic claim of SS is that some elements of the natural capital stock simply cannot be substituted. These include those that are essential to human survival such as biogeochemical cycling, and those that are at the very least essential to human well being such as the landscape, space and relative peace and quiet. These assets form the critical natural capital and since they are not easily substituted, they must be protected.

In short, these definitions are based on the natural capital which means the capacity of an ecosystem to provide natural resources and services. Keeping natural capital constant is often referred to as strong sustainability, while weak sustainability refers to keeping the sum of the natural and manmade capital constant by means of substitution. These approaches to sustainability are relatively narrow because they refer only to environmental issues. Despite the confusion and disagreement about the precise meaning of the term sustainable development, there is a broad consensus that it entails a combination of economic, environmental and social objectives.⁹ A comprehensive definition of sustainability as the attempt to balance economic, social, and environmental goals, might be as follows: "improving the quality of human life while living within the carrying capacity of the supporting ecosystem."

The relationship of nature (ecosystems), economic activities, and sustainability, according to the alternative approach of neoclassic economics, the so called ecologic economics or bioeconomics, must also be considered. In *Entropy Law and the Economic Process* (1971) Nicholas Georgescu-Roegen argued that the second law of thermodynamics plays a central role in production theory, with implications for the sustainability of economic growth. Although generally ignored by mainstream economics, this work became a cornerstone of ecological economics and bioeconomics. Georgescu-Roegen generalized the notion of entropy to include matter as well as energy. According to him, the major block to perpetual growth is the law of entropy, which states that in a closed system available energy is continuously transformed into unavailable energy until it disappears completely.¹⁰

Trade, as a major form of economic activity, is closely related to the environment and development. Between 1992 and 1993, the International Institute for Sustainable Development convened an international Working Group to propose the principles that are essential for linking trade, the environment and development. This Group endorsed

seven principles, later called the “Winnipeg Principles” intended to guide trade and trade-related environment and development policies. The Winnipeg Principles (Efficiency and cost internalization, Equity, Environmental integrity, Subsidiary, International cooperation, Science and precautions, and Openness) identify three key assumptions on which they are based: poverty alleviation; the importance of environment policies; and the role of trade liberalization.¹¹

The notion of the sustainable development of agriculture is based on the 1992 Rio Declaration on Environment and Development, Chapter 14 of Agenda 21, adopted by the UN General Assembly, and on the 1996 Rome Declaration on World Food Security.¹² The objective of sustainable development of agriculture is “to increase food production and enhance food security in an environmentally sound way so as to contribute to sustainable natural resource management,” as outlined in a decision of the Commission on Sustainable Development. The second important statement was that “activities regarding economic growth, trade and investment should be pursued in accordance with Agenda 21, with the overarching objective of sustainable development. The core of almost all sustainable agriculture definitions has two requirements: preserve productive capacity of natural systems; minimize use of non-renewable resources.”¹³ But what is conspicuously lacking in these approaches is any mention of the social dimension.

Since the publication of Agenda 21, agricultural sustainability has become an internationally important goal. There is no universally agreed definition of sustainable agriculture, there being more than seventeen different terms which are used to refer to sustainable agricultural practices such as organic, integrated, eco-agriculture and biodynamic. The most extreme proposals speak of strict vegetarianism and organic farming as a unique way of sustainable agriculture. But these kinds of approaches are surely too limited because they focus on the production stage of agriculture, whereas all steps of the food chain should be sustainable including marketing and retailing foods. It has, for example, been recently recognized that increased concentration in retailing by multinationals is a major impediment to both sustainable food production and distributing system. Similarly, problems related to food miles by international retailing systems have serious environmental consequences related to sustainability.

Maintaining sustainability in agriculture and the total food chain requires the concerted effort of all stakeholders of the system including farmers. The transition to sustainable agriculture depends on cooperation between farmers and other stakeholders from the local governing body to the world-wide organizations.¹⁴ The role of the farmers is crucial because “a sustainable agriculture means that the farmer shifts from a user of technology to a producer of technology and monitor of its impacts.”¹⁵ But besides the ecological, economic and social issues, sustainable agriculture addresses philosophical questions. For example, the fact that less than 2% of Americans now produce food for all US citizens, gives rise to various questions: can sustainable and equitable food production be established when most consumers have little connection to the natural processes? How has the decline of rural life and farmland ownership changed American values?

The simplest definition of agriculture that is sustainable is one that produces food, fiber and fuel without depleting the natural resources, polluting the environment and destroying rural life.¹⁶ Here again it requires balancing various goals: it must be ecologically sound, economically viable, and socially responsible;¹⁷ agriculture and food

systems must work in the harmony with the environment; production, processing and distribution of agricultural commodities have to be nature-friendly; these factors must function in harmony with the social and ethical needs of the society. If we remove national barriers for greater efficiency, we lose cultural diversity. Activities based solely on individual preferences and satisfactions would be financially profitable only in the short run, they will not be viable unless they take into account the social and economic interests of local and global peoples. On the other hand, sustainable agricultural development must be a major component of rural as well as of overall development.

Besides world-wide efforts towards sustainability, the current neo-liberal economic policies have not served to create a sustainable world and a sustainable agriculture. Present trade rules and liberalization policies supported by international financial institutions have had harmful effects. These inadequate and one-sided policies have exacerbated the level of poverty, hunger and inequality especially in developing and less developed countries. A short overview of these consequences should help us realize what can actually be done so that the world can move towards a sustainable agriculture.

A FREE-MARKET ECONOMY IN PRACTICE

The main idea behind liberal economy and free trade is pure competition among producers who should produce according to their specific comparative advantage. As the path to development liberal economic theory prescribes increasing free trade, industrialization of methods of production and concentration of agricultural production. But from the 1950s, it was no longer possible to practice a pure form of free market economy over the entire world. What happened in practice was that this economic vision resulted in undesired consequences for small farmers, agricultural workers, women and indigenous people. From the late 1980s, many developing countries have implemented domestic policy reforms with a more liberalized and privatized agriculture. Increased competition from imports has threatened small farmers and increased fears of food security. Various studies have provided clear evidence of these realities. Data assembled by the Brazilian Government, the WB, the UN and scholarly sources suggest that liberalization has cemented inequality rather than redressing it.¹⁸ The experience of Mexico illustrates how agricultural trade liberalization has unequivocally undesired effects on the poorest people especially those working the land in rural areas.¹⁹ An FAO study of 14 developing countries concluded that liberalization in the agricultural sector has led to an increase in the food import bill and to a decline of local production due to cheaper imports, as well as to a general trend towards consolidation of farms and displacement of farm labor.²⁰

While it is widely recognized that the market economy has led to considerable economic growth, even its champions realize that free trade and the expansion of international trade and investment have widened the gap both between rich and poor countries and between the rich and poor within most countries. Most importantly, there has been little if any progress in reducing extreme poverty worldwide. A world with a large number of desperately poor people cannot be sustained because the poor can disrupt the lives of the comfortable.²¹ Despite the five-point reduction in the share of the world population living in extreme poverty in the 1990s, 1.2 million individuals continue

to live on less than \$1 per day, and an additional two billion people on less than \$2.²² In the twentieth century, global per capita GDP increased almost five-fold, but this progress was not evenly dispersed. The richest quarter of the world population experienced about a six-fold increase, while the poorest quarter, less than a three-fold increase.²³ In the United States, for example, during the 1980s, the top 10% of American families increased their average family income by 16%, the top 5% increased theirs by 23%, but the extremely lucky top 1% of American families had a 50% increase! In 1977, the top 1% of American families had average incomes 65 times as great as those of the bottom 10%. A decade later, the top 1% was 115 times better off than the bottom deciles.²⁴

A central underlying factor of trade-related inequality is rich country protectionism. Developing nations have been forced to abolish their subsidies and to reduce their tariffs for cheap exports from the North, not only through the WTO trade rules but through restructuring policies advised and supported by the World Bank and IMF. Unlike the case of developed countries, removing non-tariff measures has no meaning for developing countries because they rarely have non-tariff measures. Under the structural economic reforms required by the WB and IMF, developing countries have also been cutting down their social spending and most of the subsidies to farmers.

It has been suggested that due to the stubbornness of the USA and EU, with their motto “you liberalize, we subsidize,” any farm trade agreements are unlikely.²⁵ While present WTO trade rules have forced the developing world (mainly Southern Countries) to open their borders to imports, industrialized countries still give large subsidies and other forms of support to their agricultural sector, using some measures that only wealthy countries can afford. For example, despite the downward trends in OECD support due to agricultural policy reforms and trade liberalization following the GATT Agreement, agricultural support increased in 1998 and in 1999, but fell slightly in 2000.²⁶ Many governments support farmers by keeping domestic prices higher through tariff barriers and export subsidies, and by public expenditure going directly to farmers (the Producer Support Estimate [PSE]).²⁷ The United States, for example, gives \$4 billion annual support to only 25,000 large scale cotton farmers in the USA, driving down international prices for cotton and destroying the livelihood of millions of small and marginal farmers in the developing world. At the same time, in spite of its position as the largest orange producer, Brazil’s exports of orange juice face stiff tariffs in the US market (\$418 per ton).²⁸

Government support for agriculture is also provided as “general services,” including research and development, advisory systems, and food inspection (the General Services Support Estimate [GSSE]). Moreover, in some countries governments also transfer money to poor consumers through food subsidies. Producer support, general services support and the taxpayer transfers to poorer consumers represent the OECD’s Total Support Estimate (TSE), which reflects the true overall value of money transferred through agricultural policies. In 2002 the total support to agriculture in OECD countries was just over US\$318 billion. To put it in another way, this amount of producer support means that as much as 31 cents in each dollar of revenue for the average farmer in the world’s richest countries comes from government support, the remainder coming from the market. Clearly, when we ask how much is spent on agricultural policies, it is crucial to consider overall support, rather than just government payments. Thus, in 2002, out of

the Euro 107 billion producer supports for EU farmers, Euro 61 billion came from the consumers' pockets to pay the high prices dictated by tariff protection and export subsidies, and 46 billion from tax transfers.

Another important but related problem is 'dumping', selling agricultural products at less than cost of production prices in the local markets of developing countries. Dumping discourages production and reduces development potential. The WTO antidumping measures are so weak that developing countries cannot use them effectively. In fact, industrial countries have invoked many of the anti-dumping cases in the WTO: data indicates that 238 investigations were initiated between 1 July 2002 and 30 June 2003.²⁹

The global international trade of agricultural products is relatively limited. The domestic markets of the USA, the EU, China, and India are larger. On the other hand, agricultural trade is completely dominated by developed countries, with roughly a 70% share of exports and imports. Today, countries representing just 14% of the world's population account for 75% of the export activity. At the other end of the spectrum the low-income countries, which make up 40% of the world's population, account for 3% of exports. Market shares have not changed, despite the promise of developing countries to increase their shares through trade liberalization in agriculture. Between 1986 and 1990, the shares of the US, EU (external), Sub-Saharan Africa and Cairn group in the world agricultural export were, respectively, 19.9%, 16.6%, 0.12%, and 1.7%. These shares remained fairly constant between 1995 and 1998—19.8%, 17.7%, 0.09%, and 1.8%, respectively.³⁰

Furthermore, whereas the industrialized countries export processed foods, the developing world mostly exports raw materials. It is estimated that high value-added processed food exports account for only 5% of agricultural exports of less developed countries, and 17% of developing countries overall, while the industrial countries have almost a third. It could be argued therefore that the benefit of removing protectionist measures and trade-distorting subsidies would not be so great.³¹ A study of the International Food Policy Research Institute (2 April 2003) shows some interesting results in this respect. They proposed a model to examine the impact of a policy that required developed countries to remove protectionist measures and trade-distorting subsidies by 2006 while developing countries maintained their existing policies. After twenty years, the projected increase of corn producers in developing countries, for example, would be merely 2.9%. The price gains for other crops would be even lower: with rice, wheat and other coarse grains increasing by 1.6%, 0.8%, and 1.1%, respectively.

Another trade-related global activity is foreign direct investment (FDI). In 1992, flows of foreign direct investment from developed to developing countries totaled \$36 billion; by the end of the decade they approached \$120 billion. FDI is seen as an important driver of development in the host country, a means of transferring better technology and management practices and of stimulating additional domestic investment. However, only a small part of the total FDI actually goes to development: it mostly benefits a small group of countries with rich natural resources and large domestic markets. While the FDI is unlikely by itself to become a driver of development in the poorest and less endowed countries, it too has some undesired results, which is why the OECD Guidelines for Multinational Enterprises includes a set of recommendations for the multinationals in the fields of human rights, labor and consumer rights, and environment protection.

While the liberalization of trade of agricultural products has been the subject of a major debate, developed countries always find a way to support their positions. The latest move is the traceability and labeling legislation of the EU, which is considered an overt trade barrier. Opponents of this legislation claim that its implementation will bring additional costs to all agricultural stakeholders.

What is more, despite considerable efforts in the developed world, several environmental problems are still worsening at alarming rates. But is it reasonable to demand developing countries to address the most pressing environmental problems when they cannot satisfy basic human needs? The OECD Environmental outlook used green, yellow and red lights to signal the different degrees of progress on environmental issues. The list of red lights (problems that have worsened in the past, or are expected to do so in the future), includes greenhouse gas emissions, which are responsible for climate change; over-fishing of the world's marine fisheries; decline in tropical forest coverage; loss of biodiversity; a worsening problem of groundwater pollution; continuing dispersion of persistent and toxic chemicals in the environment; emissions of nitrogen oxide; volatile organic compounds and ultra-fine particles in excess of quality standards for urban air.

Obviously, a totally free market cannot be achieved in the real world and all efforts in this direction will not lead to sustainable development, the aim of which is prosperity for the whole world, not only for the present generation but for future generations.

TRADE AND AGRICULTURAL SUSTAINABILITY

Give its particular economic, social, political and cultural features, agriculture has always been sensitive to trade at both the national and the international level. There are big differences among the agricultural sectors of countries, depending on their development stages. The developmental gap between the industrialized North and the developing South must be taken into consideration when it comes to discussing the liberalization of agricultural trade. For instance, in developing countries, more than 70% of people rely directly upon agriculture for their livelihood, and 96% of farmers live in the developing world. In contrast, only around 4% of the population of industrialized countries is employed in agriculture.

Agriculture is a key sector for most developing countries. In the least developed countries it contributes nearly a third of the GDP, compared to less than 3% in developed countries. Despite the obvious relationship of trade, agriculture and poverty alleviation, the international trade in agricultural commodities continues to be heavily distorted by the developed world. Thus, despite the Doha commitment to "substantial reduction in trade distorting domestic support for agriculture," subsidies for farmers in the US will increase. EU and Japanese support for farmers will be greater than of the US even after these increases.³² On the one hand, it is argued that a reduction in subsidies will have both a beneficial and a harmful effect on the environment. One estimate, for the late 1990s, was that the OECD subsidies to agriculture that were environmentally harmful amounted to more than \$300 billion; this, it was said, showed that "clearly and obviously, reductions in agricultural subsidies and support have win-win effects for both developed and developing countries."

Sustainable agriculture is closely related to sustainable development. If we consider the multi-functionality of agriculture, agricultural production and trade are not only strongly related to agricultural sustainability but also to overall sustainable development. Agriculture is an activity which relates to different aspects such as the environment (the landscape, biological diversity, recreation, aesthetics, cultural heritage, and pollution), food security, food safety, and other concerns (rural settlement, locality).

One of the challenges facing the international community today is to strike a balance between the liberalization of agricultural trade and the development of a sustainable agriculture. However, there is a conflict between free-trade and sustainable agriculture. One of the main features of a sustainable agriculture is the optimal use of local resources and of maintaining diversity, using extensive practices based on reduced levels of chemicals. In order to ensure food security, it is vital to strengthen the capacity of family farmers, local and regional food system, reverse the concentration of wealth and power, and consider agro-ecological principles. But in direct contrast the classical free-trade theory advocated by the trio of the IMF, WTO, and WB, advises otherwise: it promotes specialization, intensive agriculture, profit oriented pure competition and so forth.

Some efforts have been made to cope with problems of production and marketing structures, including fair and ethical trade and organic farming. Fair trade is a kind of trading partnership that aims at sustainable development for excluded and disadvantaged producers. Ethical trade refers to a more holistic and ethical approach to doing business. It is a somewhat broader term than fair trade because it includes social, environmental and economic dimensions: compliance with labor and human rights, the right to collective bargaining, equal remuneration of male and female workers, minimum age of workers and so forth. Organic agriculture as a holistic production system is one of the widely-used sustainable agriculture alternatives. This is of course different from fair and ethical trade as a production system. But the main principles of these approaches overlap.³³ Unfortunately, the organic sector is still a niche in the total food sector. Market shares of organic foods in most developed countries are around 2% of the total food sales.³⁴ And also, fair trade accounts for 0.01% of the total value of goods exchanged globally.³⁵

Even though a free-market economy cannot yet be realized, neo-liberal economic policies and the current state of commercial agriculture have serious consequences that are the major obstacles to a sustainable agriculture.

FOOD SECURITY

Agriculture differs from other sectors of the economy: nearly all countries view food production as an issue of national security. Most countries want to be sure that, if possible, they have immediate access to at least staple foods that form the core of their diets.

Food security is one of the bases of a country's stability, and adequate food is an essential human right. Food security and sovereignty have to be seen as practical issues related to daily life rather than as subjects to be studied theoretically. Agricultural production policies, therefore, based on entirely comparative advantages (that production for export is not necessarily for the local people) can threaten food security. J. Ziegler noted that the current model of trade oriented agricultural policies was not supportive of

ensuring food security, calling for a greater focus on food sovereignty. He stressed that market forces can not solve the problem of hunger; given that 840 million people are undernourished although global food production is sufficient to support the global population. “Agriculture trade,” he argued, “is far from being free, even further from being fair.”³⁶

Trade oriented agriculture models threaten the livelihood of peasant farmers (three quarters of the 1.2 billion poorest people in the world). One study estimates that 792 million people in 98 developing countries were not getting enough food, as well as 34 million people in the industrialized countries and especially in countries in economic transition.³⁷ In 1996 the World Summit adopted the goal of “halving the number of undernourished people in the developing world to about 400 million by 2015.” After seven years into the international program, figures indicate that only 31 of the 97 targeted countries have seen a decrease in the malnutrition rate. Both in developed and developing countries food security is a key point in trade negotiations and in shaping general agricultural policies. The main point of the free-trade talks was to “establish a fair and market-oriented agricultural trading system through reduction in agricultural support and protection.” This is the correct approach for the developed world, for they have surpluses in a number of food products due to the high level of domestic support and protection. But in the majority of developing countries, food production was inadequate and there was a lack of resources to raise agricultural productivity and food production in line with their food needs and agricultural potential.

CONCENTRATION

In the present context, concentration refers to a situation in which fewer corporations and multinationals gain power over the domestic and international markets. Both in developed and developing countries the influence of agribusiness over the farming sector has grown exponentially over the last fifty years. Each year, farmers have fewer and fewer choices about where they can buy seeds, inputs, and machinery, and they have fewer places to sell their produce or livestock. Some have argued that the ability of companies to gain monopolies have devastating effects on both human communities and on the protection of diversity.

Liberalization of agriculture promotes greater industrialization of production depending on patented seeds, chemical-intensive inputs and specialization. This threatens biodiversity and ecosystems and concentrates land and resources into fewer and richer hands, while displacing poor peasants who depend on small-scale agriculture.

Farm-level value added has been decreasing relative to value added by non-farm participants in the total food chain from farms to final consumers. Control of the supply chains in agro-food industry by powerful corporations has weakened the link between farm gate and food prices. For example, in the US and UK 78–85% of value added goes to the downstream processing and retailing industries.³⁸ Through concentration, farmers’ shares in the value of consumer expenditures are falling as more value added is created through the food processing and distribution channel. In 1999, for instance, US farmers were receiving 21 cents of the \$1.00, while ten years earlier, it was 32 cents.³⁹ In the US

only a single penny out of a dime of each dollar paid by the consumer goes to farmers, while nine cents go to the marketing and input firms.⁴⁰

The influence of agribusiness is no longer limited to the farm economy, but extends monopoly control over land, water, seeds, and germplasm and other vital inputs. This rapid concentration of power now deeply affects the rural economy and landscape, working conditions on the farm, in the factory and at the supermarket. Over half of the world's 100 largest economic entities are transnational corporations, not nations. Transnational corporations have unprecedented power to shape social, economic and trade policies. Corporate hegemony is shaping the role and responsibilities of national governments, threatening democracy and human rights. For instance, the top 10 companies control one-third of the \$23,300 million commercial seed market; the top 10 firms control 80% of the \$27,800 million global pesticide market; the top 10 control 57% of the total sales of the world's leading 30 food retailers; the top 10 companies account for 37% of the revenues earned by the world's top 100 food and beverage companies.⁴¹

BIOTECHNOLOGY

One of the new agricultural-trade related issues on the world agenda is that of genetically modified agricultural products. A group of countries, led by the EU, opposes genetically modified organisms (GMOs) because of their potential risks for human beings and nature. There is an open conflict over GMOs between the US and the EU.⁴² According to the proponents of the US trade policy, the US-EU trade war over biotech crops imperils the whole WTO system of international trade. A related problem is that most of the genetically-engineered seeds are under the control of a few multinational companies. Expensive GMO seeds also come with contracts requiring the purchase of certain fertilizers and herbicides from the companies, and forbid seed saving.

TRADE-RELATED ASPECTS OF INTELLECTUAL PROPERTY RIGHTS (TRIPS) AND BIO-PIRACY

At the international level, the most important legal document on the Intellectual Property Rights (IPRs) is the Agreement on Trade Related Aspects of Intellectual Property Rights, one of the main outcomes of the GATT. Many developing countries consider TRIPS to be biased in favor of the developed countries and transnational corporations and therefore unhelpful or even harmful to their own interest. Through such right, the corporations can control plant breeding, seed distribution, and farming practices on a worldwide scale. The main points of criticism relate to raising the price of essential drugs, limiting the availability of educational materials, and undermining the self-reliance of the resource poor farmers. The TRIPS agreement also facilitates bio-piracy, whereby corporations can discover and patent biological resources and their use.⁴³ The UN Convention on Biologic Diversity, signed by 150 countries in 1992, issued a commitment to conservation of biologic diversity, sustainable use of its components and fair and equitable sharing of the benefits of genetic resources. The US and Europe insist that corporations should be allowed to patent all plants and animals,

despite existing international laws and understandings regarding the protection of natural resources. India, Malaysia, Zimbabwe and other African and Latin American countries have therefore accused the US and Europe of “bio-piracy.” The Indians are particularly worried because European and US corporations have started to patent their traditional herbal medicines.⁴⁴

The General Agreement on Trade in Services (GATS) also poses a problem. GATS opens a wide variety of public services to foreign investors, including water. This includes requests to open up “water collection, purification and distribution” to foreign corporations. It is clear that the control of water by the multinationals would threaten the viability of sustainable agriculture.

EU, CAP, AND SUSTAINABILITY

As one of the important trading blocks, the EU is a major player in world trade. It is the world’s largest customer for agricultural products from developing countries, importing as much as the US, Japan, Canada, Australia and New Zealand taken together. The EU alone absorbs around 85% of Africa’s agricultural exports.⁴⁵ In the WTO, the largest and most comprehensive entity is the European Union with its 25 member states. Indeed, while the member states co-ordinate their positions in Brussels and Geneva, the European Commission alone speaks for the EU at almost all WTO meetings.⁴⁶

It is well known that CAP (Common Agricultural Policy) was comprised of market price support above a set intervention price level, border protection through high and sometimes prohibitive tariffs and variable limits, and export subsidies. In the early 1980s some problems appeared and some fundamental reforms were needed.⁴⁷ In 1999 a new reform program, Agenda 2000, was initiated for an enlarged EU. This reform emphasized the importance of sustainable agriculture: it added the so-called “second pillar” of the CAP—rural development measures. These rural development measures aim to increase competitiveness of farmers but even more so to enhance the protection of the environment and the well being of rural areas. More than half of the rural development funds go to maintaining and improving the environment and rural areas.

CAP was reviewed in early 2002, and in June 2003 a new reform was agreed on,⁴⁸ oriented to a more sustainable agriculture. The aim of decoupling all aid and subsidies from production was to make EU farmers more competitive and market-oriented, while providing necessary income stability. The condition for receiving single aid payments was that farmers maintained the land in a good agricultural and environmental state (cross-compliance), and complied with various hygienic, animal welfare and environmental standards. If a farmer failed to comply with such requirements, his payment was reduced. Some say that farming in Europe today is less about production, for farmers have become stewards of the environment.

The enlargement of the EU, a milestone in European history, has and will continue to have great impact on agriculture: 4 million farmers will be added to the existing population of 7 million; the utilized agriculture area will increase by 38 million hectares, a 30% increase of the land available, while agricultural production will expand by about 10–20%. But the gross value added will only increase by 6%. It was expected that farmers in the new member states would clearly be better off within the EU, with a recent EU

study showing a positive medium-term progress in the agricultural sector as a whole in these countries. A 35% increase in the gross value added is estimated from 2002 to 2010, mainly related to the improved market conditions, the phasing in of CAP direct payments, and the rural development measures.

The EU, which has taken steps towards a more sustainable agriculture, also intends to help the developing world in their struggle for sustainable development. EU Agriculture Ministers confirmed the EU's commitment to a strong relationship with developing countries, particularly as regards trade in food and agriculture products. To facilitate this type of trade, the European Commission has put in place clear food safety rules as well as guidelines on how to apply them. The Commission also finances technical assistance projects to help developing countries live up to EU food safety standards. Furthermore, the EU reaffirmed its commitment to create better market opportunities for developing countries through the ongoing WTO Doha Development Agenda.⁴⁹

The Commission issued a proposal calling for improved market opening and reduction of trade-distorting support in this domain, in particular for products of special interest to developing countries: duty-free and quota-free access for all farm exports from the world's poorest countries, with rich countries giving access at zero duty to at least 50% of their imports from developing countries; significantly reducing tariff escalation on products originating in and of particular interest to developing countries; a "food security box" including provisions to support the agricultural sector, notably for food security and rural development purposes, and to preserve key food through a special safeguard.

One means of integrating sustainability into European trade policy is through the Sustainability Impact Assessment (SIA), which analyzes the issues of trade negotiations with respect to sustainable development, informing negotiators of the agreement's possible social, environmental, and economic consequences, and providing guidelines to help in the design of possible side measures (internal policy, capacity building, and international regulation). The implementation of the SIA has shown the EU's tendency to tie up liberalization with sustainability and to maximize the benefits of liberalization by better management of environmental, social and economic resources in the long term.

The recent meeting of European experts at the CAP Seminar on "Organic Farming and Nature Protection to Allow Sustainable Growth" showed the importance of efficient and coherent (CAP) Rural Development programs in the Member States to further develop organic farming and nature protection.⁵⁰ It is clear that even the EU is under pressure from the WTO and other powerful multinationals that are struggling to implement sustainable agricultural policies. On 12 June 2007, for example, the Council of EU Agricultural Ministers adopted a law that will allow "adventitious or technically unavoidable" genetically modified organism (GMO) content of up to 0.9% in foods could be classed and labeled as "organic."⁵¹

CONCLUSIONS

Although there is still no widely accepted definition of *sustainability*, from the environmental, social and economic perspectives it could be taken to stand for "justice." This justice is both inter-generational and intra-generational; the environmental use of

natural resources for future generations (or environmental justice) and, the balanced wealth distribution among the present generations (or distributive justice). However, current neo-liberal economic and trade policies do not really serve these two goals of sustainability. While the main socio-economic and environmental problems have increased, the super-nations and the WTO, IMF, and WB have not provided any satisfactory or promising economic policies aimed at increasing global wealth and mitigating inequality.

Despite the efforts to provide some exemptions for less developed and developing countries, the developed world has been trying to create an international trade system that uses a single standard for all countries. This system ignores the fundamental differences between the developed and developing countries. It is extremely inconsistent of the developed countries to demand developing countries to open their markets while they continue to support their own agriculture and to use non-trade barriers.

But it is probably not very helpful to blame the US, the EU and their counterparts for their unwillingness to cut farm subsidies. It is more to the point to seize their undeclared agenda of keeping a certain amount of population in rural areas not only for agriculture but also as a safeguard of natural life and to provide enough income making them viable. They always find a way to support their farmers and agriculture to sustain this indispensable target.

Free market measures alone can not guarantee agricultural development and rural structure in a sustainable way. This is why economic and trade policies should focus on food security and sovereignty rather than on overdependence on imports, food aid and technologies controlled by multinationals. Agricultural trade rules need to take into account the changes in the whole agricultural sector from seed to the consumer table. The creation of an open and fair trading system will not be possible unless multilateral trade rules take into account the concentration in international agricultural trade. As implemented under the CAP, the decoupling of direct payment and any other subsidies from production will be meaningless unless real competition exists in the market. But, as is well known, many products, including coffee, cacao, cotton, and wheat, have been marketed in oligopolistic markets where a handful of multinational corporations have cartel power.

Leveling the playing field by removing all trade barriers allows a country only to play under the same rules, but does not enable it to have the same power. It can help to create a sustainable trade only if each side has the same power and abilities to trade. Developing, less developed, and countries in transition need to benefit from what the developed nations experienced before, not to do what they are advised or forced to do. What they need is a gradual approach. Before removing all barriers, they need to change their agriculture from subsistence farming to a more market-oriented sustainable one. Developing countries not only need access to markets, but also need assistance in meeting the quality and safety standards that are necessary to actually capture a market share. Developing countries not only need a reduction in price-depressing export subsidies; but they also need more investment in infrastructure and capacity building to compete in the global marketplace.

Sustainable development needs a fair trade rather than a more liberalized one. An international agricultural trade system must emphasize fair trade at all levels, with a strong regulation of transnational corporations in order to avoid exploitative relationships.

Developing countries have to concentrate their efforts on investment policies and projects with a special focus on human capital, land, water, property rights, management, technology infrastructure, and strengthening farmers' organizations. It is known that farmers, especially small holders, have relatively little control over the institutions shaping agriculture. Problems of quality, efficiency and competitiveness of smaller farms could be overcome through producers' organizations. Sustainable agriculture requires the development of local, national and multinational farmers' organizations and cooperation among them at different levels.

Ethical, fair trade and ecological agricultural practices have been considered as alternatives to the present system, but these cannot compete with the present production and trade systems. Fortunately, besides their positive contribution to the transition to sustainable agriculture and development, these alternatives highlight the main problems of the present free trade and industrialized agriculture structures and point to possible solutions to these problems.

It can be concluded that the successful promotion of sustainable agriculture depends on finding feasible approaches and methods supported by appropriate legislation, education and economic policies that are based on respect for nature and for human beings.

NOTES

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