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OPTIMIZING THE ECONOMIC GROWTH AND POVERTY REDUCTION BENEFITS OF CAFTA-DR

ACCELERATING TRADE-LED AGRICULTURAL DIVERSIFICATION

VOLUME II

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Best Practices for Promoting Trade-Led Equitable Growth in the LAC Region
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Section 8 Nicaragua

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SECTION 1 INTRODUCTION

This volume presents a series of five country reviews for the Dominican Republic, El Salvador, Guatemala, Honduras, and Nicaragua. These provide the background information and rationale for framing the Volume I regional assessment advancing agricultural diversification, an important activity for these signatories of the United States-Dominican Republic-Central America Free Trade Agreement (CAFTA-DR). Each country review presents: 1) an overview of the key dynamic relationships among economic policies, growth, trade, and rural poverty; 2) the current and potential range of sector diversification activities; 3) current support roles of selected national government, private sector, civil society, and donor stakeholders positioned to stimulate more optimal levels of trade-led agricultural diversification; 3) a summary of key opportunities and perspectives for advancing sector diversification; 4) an overview of key opinions gleaned from the extensive stakeholder interviews with national and donor stakeholders; and 5) the strategic conclusions and framework to begin to better advance trade-led agricultural diversification.

For the purpose of presenting key Latin America and Caribbean country-level comparisons provided in Volume I and to enrich those recommendations, this volume contains special studies of Chile, provided by Dr. Enrique Roman Gonzalez, and Costa Rica, provided by Dr. Ricardo Monge-Gonzalez. These studies present an overview of evolving economic developments and the important growth and poverty reduction contributions provided by the generally under-reported role of non-traditional agricultural exports. These exports have promoted significant value chain links with industry and service sectors. Under CAFTA-DR, such linkages become critical elements to stimulate increasingly required, higher levels of broad-based economic growth.

The country reviews incorporate an in-depth literature review, data analysis from considerable primary and secondary sources, and the results of more than 250 interviews with senior, mid-management, and worker-level representatives from government, citizens groups, private sector associations, nongovernmental organizations, academia, international donors and lenders, technical services purveyors, and stakeholders from international and regional organizations based in Washington, D.C. (See Section J. List of Interviewees under each of the Sections 4 through 8).

The focus is on agriculture and agricultural diversification because paradoxically, while basic grains production and other sensitive commodities remain a key contributor to rural incomes and the main source of rural employment, these products also define each county's most daunting challenge for meaningful poverty reduction. Basic grains and other trade sensitive products face significant constraints (i.e., low productivity and high input costs) to competing globally that will further impede rural growth for they facilitate only minimal value-added economic contributions with other sectors compared to what can only occur from non-traditional and more product-differentiated traditional agricultural products (e.g., specially coffee, organic cacao, etc). Therefore, during the treaty's transition period, diversification of rural productive activities away from these

traditional products in ways that stimulate more remunerative product prices, intensify labor requirements, and expand linkages, become particularly vital to increasingly generate the wage and job growth opportunity provided by CAFTA-DR.

It is noted that during the review process, the unprecedented agricultural price increases recently generating international and national debate were not at the forefront of topics. However, from the uniform conclusions reached across these reviews, the most current household consumption patterns, commodity price projections, and the undeniable realities associated with declining competitiveness and farm gate prices due to tariff reductions, job and wage growth form the only sustainable means out of the current increasingly complicated and sensitive morass.

From the comparative analysis of macro and sector trends, we find that trade-led agricultural diversification, tailored to each country's circumstances, presents the biggest opportunity to achieve the wage and job growth requirements increasingly demanded. The country reviews and the regional assessment focus on opportunities and challenges for crop and livestock production and in some areas aquaculture and forest products and related activities in both primary production and on- and off-farm value-added processing. The findings are presented such that during the transition period provided under DR-CAFTA and stimulated further by the increased product-level competition provided by globalization, appropriate strategies and programs can commence. These reviews are offered to provide useful starting points to help national leaders more quickly launch that process and to help frame the more in-depth analysis tailored to individual country and stakeholder needs.

In the context of the study's overall objective to provide governments, private sector, civil society, international donor, and key U.S. government agencies with an assessment that offers a strategic framework so that trade under CAFTA-DR (and for that matter the unprecedented additional number of free trade agreements each country has negotiated), the focus is on how trade can be used in ways that stimulate broad-based economic growth. Inherently this process recognizes and respects the great and important country-level heterogeneity across the region. However, as observed throughout the country review process and ever respectful of critically important economy-of-scale realities in the context of these relatively small countries slowly mobilizing, a mutually supportive broader regional framework was also developed. Accordingly, Volume I presents a regional dynamic and framework to facilitate and make more efficient a mutually reinforcing process needed to promote, nurture, and maintain the requisite new era, trade-driven support structure.

SECTION 2 CHILE

ACRONYMS

ATE	Technical Assistance for Business Program
CAFTA-DR	United States-Central America-Dominican Republic Free Trade Agreement
CNR	National Irrigation Commission
CORFO	Chilean Development Agency
EAP	Economically Active Population
EFTA	European Free Trade Association
FIA	Institute for Agricultural Innovation
FTA	Free Trade Agreement
GTT	Technology Transfer Groups
GDP	Gross Domestic Product
IDB	Inter-American Development Bank
INDAP	Institute for Agricultural Development
MINAGRI	Ministry of Agriculture
NGO	Nongovernmental Organization
NTAE	Non-Traditional Agricultural Export
ODEPA	Agrarian Policies and Studies Office
SAG	Agriculture and Livestock Services Agency
SENCE	National Employment Service
SNA	Sociedad Nacional de Agricultura
USAID	United States Agency for International Development
WTO	World Trade Organization

SECTION 2 CHILE

A. INTRODUCTION

The evolution of the Chilean economy during the past two decades has attracted widespread attention mainly because it has been so different from that of other economies in Latin America. Any analysis to determine the reasons behind this difference and draw lessons from the Chilean experience, however, will have to identify the circumstances and peculiarities that enabled the Chilean economy to make the transition from an economy all but closed to foreign trade to the thriving export-oriented economy it is today.

The Chilean agricultural sector will be analyzed from the perspective of its transition from domestic market-oriented and low-tech production of primarily traditional crops to the dynamic export-oriented, nontraditional crop-producing and high-tech operations that characterize it today.

After presenting a brief quantitative summary of the evolution of the agriculture sector in Chile, this report analyzes the singular ways in which the Chilean state has handled the transition to globalization: The State has injected resources into rural economies and the relatively smaller farming operations through programs to improve their natural resources, increase innovation, transfer technology, provide investment financing and training, and improve export quality and volume.

B. BRIEF HISTORY OF THE EVOLUTION OF THE CHILEAN AGRICULTURAL SECTOR

Although policies implemented in the wake of the Great Depression steered the Chilean economy down the road of import substitution and State involvement in economic development, the agricultural sector managed to remain largely on the sidelines, and was only affected by prices fixed for agricultural products and protectionist tariffs the government slapped on imports. Technologically backward and riddled with inefficiencies, the agricultural sector managed to continue supplying food to the urban sectors, while wages were kept low to support the import-substitution in the industrial sector. With the agrarian reform of the 1960s and 1970s, fundamental change occurred to the landholding patterns that had characterized the Chilean economy since colonial times.

Some authors maintain that modernizing the agricultural sector would never have happened without agrarian reform, while others say it had the opposite effect. Regardless of which position is correct (and the resolution of this polemic does not fall within the scope of this analysis), there is no doubt that the reforms implemented at the end of the 1970s marked the adoption of a new development strategy in Chile, one which has been consistently pursued since then and now forms the basis of its foreign trade policies and the role agriculture plays in economic development. The pillars of this strategy are quite simple. First, the country must produce goods in which it enjoys comparative advantages or for which it has developed competitive advantages. All other products are to be

imported from countries that can produce them more efficiently. Second, given the small size of the domestic economy, foreign markets must play a central role in the development strategy. This led Chile to gradually cut its average tariffs from more than 300 percent in 1970 down to 11 percent toward the end of the military government in 1989. Further reductions were implemented annually from then on until the average tariff reached 6 percent in January 2003. With the tariff reductions contemplated in the trade agreements Chile has signed, average tariffs for agricultural products now stand even lower less than 2 percent in 2007.

In entering into trade agreements with almost all the countries of South, Central, and North America, and with the European Union, the European Free Trade Association (EFTA), South Korea, India, the other P4 countries (New Zealand, Singapore and Brunei), and more recently with China and Japan, Chile has had to take on the challenge of boosting its agriculture by making the sector more competitive. Increasing the sector's competitiveness was the only means by which it would be able to survive the opening process and the country's insertion into the world economy. Given the considerable social and economic heterogeneity of Chilean agriculture, this was no mean feat. Chilean farming operations vary tremendously in size, as do the scales of their operations, their levels of capitalization, their crop yields and their economic returns. The varied agro-ecological conditions have given rise to this heterogeneity and have generated marked regional differences in farming processes. In the areas in the center and to the north, where water is plentiful, farming operations are strong, modern, export-oriented enterprises. Meanwhile in the south, farming is still geared toward import substitution, and despite a genuine process to modernize the sector and introduce technological changes, farming operations in this region are subject to fluctuations in international prices, which are in most cases triggered by the subsidies that still distort world trade. In the dry regions of the interior and along the coast, farms are small-scale operations with low levels of productivity, and poverty rates are high. There is a strong and dynamic forestry sector, however, which is the result of the consolidation of the region's competitive advantages and a policy of subsidizing tree plantations, which has been in effect for years.

Despite the difficulties involved, Chile's strategy to pursue an economic opening seems to have paid off, especially in the farming sector. The forestry-agriculture sector has grown at a rate of 5 percent a year during the past decade, which is fast compared to the rest of the world. It employs 11 percent of the workforce, generates more than 700,000 direct jobs and is steadily increasing its productivity. As far as economic growth is concerned, the forestry and agricultural sectors together account for around 12 percent of Chile's GDP. These figures are the result of the enormous effort undertaken to modernize the sectors' operations, which generated the impressive boom in exports. These exports have risen 93 percent during the past 10 years, growing at an annual rate of approximately 8 percent. Over the same period, the trade balance for the forestry-agriculture sector increased 9 percent per annum to generate a surplus of US$6.204 billion in 2005.

A constant feature of globalization processes is that, as far as farming is concerned, they tend to concentrate modernity, technology, and wealth. One notable aspect of Chile's policies in this respect has been the efforts to offset the imbalances that exist between the country's modern farming enterprises and the less developed ones.

C. STATISTICAL DATA ON THE CHILEAN AGRICULTURAL SECTOR

In geographical terms, Chile's wide variety of resources forms the basis for its forestry and farming activities. Of the country's 75 million hectares of land, 4.5 million are arable, 1.2 million receive constant irrigation, and 0.6 million receive irrigation as needed. Add to these the arable dry land, and 2.5 million hectares of Chile's land is potentially irrigable. Then there are 11.5 million hectares of land apt for forestry, 8.5 million hectares suitable for livestock farming, and 14 million hectares of protected areas (ODEPA 2002). In 1996, the agricultural sector in Chile produced 4.4 percent of GDP, employed 14.8 percent of the economically active population (EAP), and accounted for 4.8 percent of total exports. According to the farming census conducted by the National Statistics Institute, farming and forestry operations occupied 48.5 percent of the national territory (INE Censo Agrícola 1997).

Agriculture and manufacturing. Manufacturing accounts for 82 percent of intermediate demand for agricultural goods, which represent 19.4 percent of the industry's total demand for intermediate inputs, and pushes up GDP by approximately 10.7 percent, employment by 7.3 percent, and exports by 15.1 percent. In fact, agriculture, and the manufacturing industry directly associated with it, together account for 15.1 percent of GDP, 22.1 percent of employment, and 19.9 percent of exports, which means that agro-industry had a multiplying effect of 3.4, 1.5 and 4.1, on these variables, respectively, compared with the direct contribution made by agriculture alone. These multipliers are by no means insignificant, especially considering they are only partial multipliers that do not take into account the other links in the agricultural production chain, such as commercialization, transport, financial services, public services, etc., nor the links produced with consumption through the households that obtain their income from farming activities. (Errázuriz and Muchnik 1996).

The 1997 census reveals in that year that Chile had 330,000 farming operations. A study by the Agrarian Policies and Studies Office (ODEPA 2000) found that, of these farming operations, approximately 100,000 were small rural subsistence farms, and that 176,000 were small farms with potential for agricultural development. The small-scale farming sector controls around 45 percent of the land used for growing annual crops and for horticulture, a slightly smaller proportion (43 percent) for raising dairy and beef cattle, 40 percent for vineyards, 30 for fruit orchards, slightly less than 50 percent for pigs, and 60 percent for raising goats. This distribution reveals the increasing specialization of this sector, which has least benefited from globalization. Small-scale farmers now specialize in activities that allow them to at least feed their families, or in which they have clear advantages, such as products that have short or continuous production cycles and products that require the special or constant attention small family farms can provide. These farmers grow vegetables and flowers, produce dairy products made from cow's, sheep's and goat's milk, operate small fruit farms, practice beekeeping, and product

organically grown products. All this is achieved without threatening basic subsistence farming operations that have a low capacity to produce agricultural and forestry goods.

The agri-business sector on the other hand consists of 17,000 medium-sized farming operations and 9,500 large-scale operations, together with approximately 25,000 inactive or unclassified farming operations. These medium- and large-sized farming enterprises control 77 percent of usable farmland. The preferred activity is forestry, and these enterprises control 84 percent of the country's tree plantations; their fruit farming activities occupy 76 percent of farmed land; their cattle-raising operations account for 76 percent of sown pasture; their dairy farming accounts for 57 percent of the country's dairy stock, and their production of annual crops uses 56 percent of the arable land. These figures reveal the considerable heterogeneity of the Chilean agricultural sector, which contrasts sharply with the situation at the beginning of the 1960s. Nowadays, the scale of operations in each branch of farming varies considerably, as do the levels of capitalization and the farming practices used. This means that crop yields, productivity and economic returns also vary tremendously.

This heterogeneity — which is explained partly by the varied ecological conditions and in part by the incomplete processes to make markets more competitive — has led to the emergence of three highly distinct regions in the center and to the north. In the dry region of the interior and along the coast, farming operations coexist with a strong and dynamic forestry sector. Though strong in many respects and widely believed to be well consolidated, the forestry sector faces huge economic, technological, environmental and social challenges in the short term. How well this sector meets these challenges will determine its prospects in the medium and long term.

Farming and forestry. The sector has a positive trade balance and recorded a surplus of US$3.8 billion in 2000 (ECLAC 2001) and US$6.1 billion in 2005 (MINAGRI, 2006). Since 1990, even when the forestry figures are included in these calculations, fruit production has played an increasingly important role. In 1990, fruit farming represented 36.9 percent of the national farming and forestry GDP, while other farming activities accounted for 28.6 percent. At the end of 1998, 44.9 percent of this GDP was generated by fruit farming, and in 2006, almost 32 percent of the farming and forestry GDP was accounted for by fruit production. The fruit sector is extremely important with operations growing tenfold in the past 20 years, both in FOB value of exports and volume of fruit exported, which currently (2007) exceeds US$2.2 billion a year. This kind of growth has not been limited to fruit production, however. According to official statistics produced by the Office for Agricultural Research and Planning, ODEPA, the Chilean agri-food sector in 2005, exported goods with an FOB value of around US$8 billion. This reflects the sector's dynamism, competitiveness and high level of specialization, which has made it one of the country's leading exporters, second, in fact, only to copper. According to estimates by the Association of Agro-Industrialists and Producers of Chile, known as ChileAlimentos, exports are expected to double during the next 10 years, which would make Chile one of the top 10 exporters of farming, forestry, and food products in the world. This expansion of the thriving agricultural sector has gone hand in hand, however, with a total stagnation of production in the traditional farming sector that is involved in

beef farming and in growing annual crops, such as wheat, corn, pulses and rice. Despite the positive and upward trend in agricultural GDP and the contribution of the agricultural sector to the expansion of the Chilean economy (except in 1999, when GDP fell as a result of the crisis in the Asian economies, the main buyers of Chile's exports), traditional farming has played an increasingly smaller role during the past decade in the sector's total GDP.

D. CHILEAN AGRICULTURE AND THE INSTITUTIONAL FRAMEWORK FOR DEVELOPMENT

Chile has a long history of institutional intervention aimed at furthering the country's development though the objectives have varied over time. From the end of the 1930s up to the military coup of 1973, State intervention operated against the mechanisms of the market, while since 1976, the tendency has been quite the opposite. The military government that ruled Chile from 1973 to 1989 overhauled the macroeconomic management and introduced huge changes to reverse the damages incurred during the agrarian reform. These policies were not accompanied, however, by interventions to democratize the markets and make them more competitive as they were freed from State control, or at compensating the basic inequalities between producers of different sizes. An analysis of the public policies during this period, in fact, reveals the little attention paid by the military government to this issue. No radical action was taken, for example, when drawing up the budgets for the State's enterprise promotion agencies to shut down superfluous public institutions; and measures to improve efficiency or impact were also rare.

During the almost 20 years of military rule, the Chilean State pared down its agricultural promotion efforts to a bare minimum, which prevented them from having any meaningful impact. The bulk of the agrarian development agencies, however, remained up and running (INDAP, Institute for Agricultural Development; INIA, National Bureau on Agricultural Production Research; SAG, Agriculture and Livestock Agency), and no argument for closing them was ever put forward by the military government. It seems that this surviving institutional network did not attract any attention mainly because it posed no threat to the macroeconomic balance and did represent a major drain on the budget once it had been reduced in size. This does not mean that agricultural policies were shelved; what really happened was that, based on pragmatic considerations rather than conceptual theories, the beginnings of a new institutional framework for furthering development began to timidly, and not always smoothly, take shape within the military government.

During the first year of Pinochet's government (1974), the ProChile institution was created with funds from the budget of the Ministry of Foreign Relations. This public entity, which was set up to provide export promotion services (contrary to the anti-State intervention rhetoric), began to organize and promote Chile's export supply, especially the then limited export production of the agricultural sector. In the mid-1970s (1976), a Training and Employment Statute was issued, whereby the roles of the Ministry of Labor and the National Employment Service (SENCE) were redefined. The State, through SENCE, began to assume more regulatory functions, while handing the role of mediating

between the supply and demand for training and providing training directly at the grass-roots level of the system over to business associations and private organizations. The State set up a grants scheme to encourage labor training that worked through tax credits worth 1 percent of a company's payroll. Provided that the company used the credit on State-accredited training by the private sector, the company would be reimbursed. Although the predominant approach would seem to oppose the State's provision of technical assistance, between 1978 and 1982, the Ministry of Agriculture implemented a technical assistance program for businesses (ATE by its Spanish acronym) that annually helped about 15,000 farmers. After the crisis of 1982, these efforts were reorganized into a new program conducted by the INIA (National Bureau on Agricultural Production Research). This program consisted of subsidizing demand for technological innovation services in agriculture and operating through associations so that the subsidies would promote the creation of the so-called Technology Transfer Groups (GTT by their Spanish acronym). These groups in turn consisted of farmers who would acquire and implement technological services using shared public-private financing.

The main advantage of these instruments was their design, which was based on following the use of joint financing mechanisms; the use of the private sector to provide services; the regulatory role of the State; and the whole process driven by demand. The flaws in these instruments, however, stemmed from their targeting the larger enterprises operating in the agricultural sector. The mechanisms used by these instruments in most of the demand-driven cases nevertheless ended up being reformulated as the backbone of the development policies pursued by the democratic governments that succeeded the military regime (1989-2007). To the surprise of many, the democratic governments built on the institutional framework they had inherited and converted the issue of social equity and equal opportunity in the face of trade liberalization and economic opening into the core focus of the new public policies they were implementing to promote the competitiveness of Chilean business and the modernization of the agricultural sector.

The details surrounding the origins and ensuing evolution of these public policy instruments, as well as their impact on the development of the agricultural sector, are worth analyzing. It is particularly notable that the institutional framework under the military government remained in tact so long after the end of the regime despite the fact that each of the programs that government had implemented was subsequently adjusted to focus on small-scale farmers and their economy, rather than the sector as a whole.

The programs carried out by MINAGRI are the most notable. In the second half of the 1980s, MINAGRI built up an extensive network of farmers groups. These were established as the beneficiaries of GTT programs and spent significant time under the auspices of the INIA, much in the same way as the export committees operated under the guidance of ProChile. The main development tool used by MINAGRI, however, was the forestry subsidy, which was established through Decree 701 (1974) and consisted of a 75 percent subsidy of a tree plantation's value. The decree also stipulated how the subsidy had to be repaid. The forestry subsidy was the most far-reaching subsidy of private sector supply activities used in Chile. It was introduced under the military government and remained in place from 1974 through 1996, when it was reformulated to support only

small farming operations, and continues today. In 1985, a National Irrigation Commission (CNR by its Spanish acronym) was set up under a new Law on Irrigation. Today this entity operates as part of MINAGRI. The commission established a second set of demand subsidies that focused on subsidizing minor irrigation projects, which, in the case of medium- and large-sized farming operations, were overseen by the National Irrigation Commission, and since the mid 1990s, in the case of small-scale farmers, were operated by the Instituto de Desarrollo Agropecuario (INDAP). These subsidies, which amount to up to 75 percent of the value of the irrigation project, have been handled through a competitive bidding mechanism run by the CNR, although small-scale farmers can access the fund through the regional offices of the INDAP. The CNR has the authority to convene bidding processes and to subsidize irrigation or drainage projects undertaken by small-scale farmers, organizations, or communities. The CNR can also organize bidding to benefit projects in zones or regions, projects to tap underground water reservoirs, and others as it deems appropriate. Projects are awarded points according to their cost, the area that will benefit, and the applicant's contribution to the project. When funds in a given bidding process are insufficient to cover all projects, only those with the highest points receive the subsidy.

Chilean Forestry and Agricultural Exports

In 1990, the Chile's forestry and agricultural exports were slightly more than US$2 billion; in 2006 they exceeded US$8 billion. The number of destinations for Chilean exports in 1990 was less than 100; the number of such destinations in 1990 reached 160. The number of products exported has similarly grown from 400 to 622 in the same period. In terms of its main fruit exports, Chile corners 72 percent of the hemispheric export market for grapes, 23 percent of the market for pears, 33 percent of the market for apples, 53 percent of the market for avocadoes, and 31 percent of the market for kiwis. This shows how important Chile is as a producer of temperate fruits. Its most important export markets are the United States and the European Union. The existence of trade agreements has been key to the expansion of its exports, as became apparent from 2002 onwards. More than 80 percent of its grape exports, almost 100 percent of its avocado exports, and over 60 percent of its kiwi, pear and apple exports are carried out under free trade agreements.

The Agriculture and Livestock Service (SAG), another entity overseen by MINAGRI, also participated in the modernization and opening of the agricultural sector. This service was created through Law 218.755 (1989) and subsequently modified by Law 219.283 (1994). It dates back to the end of the military government in 1989 when the then Ministry of Agriculture undertook the last of its initiatives to subsidize programs to recover degraded soils, which was enacted through Law 18.755. This program operated similarly to other subsidy programs inasmuch as it used the SAG as a second-floor window for the system. The SAG has built up a fairly extensive network of natural and juridical persons operating in the private sector who provide services to the SAG and carry out institutional activities they are contracted for, especially in the field of soil improvement. The bidding process for obtaining joint financing for soil recovery projects has been standardized and pared down to a set of standardized procedures. Discretionary powers in the decision-making have been practically eliminated and the projects all have to be carried out in the same way to ensure they adhere to the SAG-approved design, down to the smallest technical details, and with regard to the cost structures, which are defined in a decentralized manner. The functions that the SAG previously assigned to the INIA are now carried out by the private sector, but within a modus operandi subject to the design and regulation of the third floor public entities. All these activities are now

carried out according to the general regulations of the National Accreditation System for Third Parties of the SAG, which were approved by exempt Resolution No.3142 of (1998), and which have made the mechanism more flexible by delegating certain functions to the private sector and focusing its actions more effectively on small-scale farmers.

Export funds. The institutional framework for the development of agriculture did not consist only of sectoral institutions, however. From the moment of its creation in 1974, ProChile began to organize export committees, trade missions, and trade information offices up and down the country. Meanwhile, a network of trade promotion offices was also established abroad, usually under the auspices of the commercial attaches working at the Chilean embassies. In 1985, the government drew up three additional export promotion instruments Law 18.480 (1985), which establishes the simplified tax refund system for exports; Law 18.634 (1987), which establishes the deferred payment of customs duties; and Law 19.708 (1988), which establishes the general export drawback system. The democratic governments inherited this institutional framework from the military government, developed it, and strengthened it. They shifted the focus to relatively smaller enterprises and, in October 1996, created the Export Promotion Fund. At that time, Chile's agreement with MERCOSUR came into effect. This agreement had raised concern in the farming sector regarding competition that agreements with protectionist countries as other parties to the agreement might pose. The government therefore implemented a set of measures which, without violating commitments assumed in the WTO, helped support the agricultural sector. This included the creation that same year of the ProChile Fund for Forestry and Agricultural Products, which has assisted exporters in different ways for 11 years. These two funds have played a significant role in the development of the Chilean export sector. Between 1996 and 2005, some US$134 million have been paid into this fund, in addition to the similar amount received in the form of joint financing provided by the private sector. In fruit and wine funding alone, the private sector has received US$73 million. The fund's current goal is to extend its activities to other segments not involved in mass production and to new enterprises. This approach is being adopted for technical reasons and as a secondary line of attack within a broader policy. It aims to ensure that the development of the agricultural sector not only benefits a few, but rather everyone involved in farming and that small-scale farming operations receive the support they need to access external markets, either directly or by linking up with export companies or agro-industrial enterprises. The intent is to narrow the socio-cultural and economic gap that separates the more backward sectors of the rural community.

Innovation. The Institute for Agricultural Innovation (FIA) is another powerful policy instrument that was created slightly more than 10 years ago. The goal of this foundation is to encourage the use of innovative farming practices to help further Chile's aspiration to establish itself as a major player in the world agri-food market. This objective forms one of the pillars of Chile's current agricultural policy. Under this policy, Chile is trying to strengthen its agro-industrial production processes and increase the presence of its products in international markets. The FIA has been supporting this policy by promoting innovation in agriculture for the last 10 years. More than 21,500 entities have benefited

from its activities, and over 22 billion Chilean pesos have been transferred to the forestry and farming sector through it. It has supported 355 projects in agrarian innovation at a cost of 22.395 billion pesos (November 2006 prices). Several pilot projects promoted by the foundation have gone on to become booming export businesses. These include the production of bulbs, currently a US$16 million per year business; and the production of olives (more than 6,000 hectares are devoted to this). In 2004, the Spanish consulting firm GPI measured the impact of the foundation's activities and concluded that for each US$1 million invested by the entity, the sector recorded a US$5.14 increase in annual sales and two stable jobs were created. During the period 1996-2006, 21,500 people participated in FIA's development programs and innovation schemes.

The Chile Foundation. This foundation was created in 1976 with an endowment from the American firm ITT and a complementary contribution from the Government of Chile. The function of the Chile Foundation was gradually narrowed down to promoting the transfer of technology through the creation of new enterprises in the form of joint ventures with private sector companies. In its almost 20 years, the foundation has set up more than 70 companies, some of which have been successful, most notably in the salmon industry, which was nonexistent in 1976, and now generates annual exports of around US$1.5 billion. Not all of the foundation's experiences have been as successful, but its value as an instrument is that it supports companies in the initial phases, which is when their mortality rate is highest. Experience has shown that the risk in the cases the Chile Foundation takes on is even higher because it focuses on innovative projects that aim to break into potential markets or establish industries that previously did not exist. Given that at the time of the Chile Foundation's creation, the military government in power was determined to eliminate the possibility of the State engaging in business activities, it seems that creation of the Chile Foundation was intended to perpetuate the public sector function historically carried out by the Chilean Development Agency (CORFO), but have it performed by a private entity whose relationship with the State would be limited to the appointment of most of its directors. Now that the foundation's financing is no longer obtained from profits earned by its businesses or from interest generated by the initial endowment, but from its participation in the bidding mechanisms used by the State's project financing programs, the Chile Foundation has entered a gray area in institutional terms, that is neither public nor private, and this raises doubts about its sustainability, despite the interesting features of its operating mechanisms and despite its innovative potential.

Chilean Development Agency. CORFO's institutional strength as a development agency is derived from its constitution, which establishes it as the only public institution in Chile with the capacity to undertake all the activities that the law does not specifically prohibit if from performing, unlike the other ministries and public institutions that are only allowed to carry out the activities they are specifically permitted to perform by law. It was for this reason that the new democratic governments used CORFO to implement their programs to subsidize demand. In 1993, CORFO handled the first transfer of responsibility for the services provided under the demand subsidies program to the private sector. The new instruments established the public sector as a third floor in the system, i.e., as a regulatory entity responsible for defining objectives and safeguard

mechanisms to ensure the good use of public funds. The services provided under the programs were to be contracted using shared public-private financing and the private-sector contribution was to increase. The idea was for the subsidies to be temporary and that self-sustainability would have to be attained within a certain timeframe. By the end of 2001, CORFO had built up a network of institutions, including business associations, NGOs, regional development corporations, and universities. This network enabled CORFO to decentralize and spread its decision-making processes. Its top management retained the function of supervising the system as a whole (the third floor role it aspired to play) through the activities carried out at the operations level by its regional offices. Meanwhile, the Undersecretary for Agriculture between 1999 and 2000 realized that the agricultural secretariat's institutional framework made it impossible for it to effectively carry out the development programs arranged with the Sociedad Nacional de Agricultura (SNA) under the MERCOSUR agreements. She also realized that the INDAP was in no condition to execute the new competitiveness building programs properly as they were far broader in scope and targeted far more operators than the programs that INDAP was used to handling. However, a provision in the regulations governing the funds allocated by the Ministry of Finance to the agricultural secretariat for agricultural development allowed those funds to be transferred to CORFO, provided that CORFO used them exclusively in the agricultural sector. This was therefore arranged and, since then, almost half the development funds CORFO manages (around US$20 million a year) are channeled into agricultural development programs.

E. CONCLUSIONS

A significant portion of Chile's economic success, especially regarding its forestry and farming development policy, can be attributed to its decisive trade liberalization strategies and deregulation measures. These have made its markets and its production factors more functional and more flexible. Even during its most neoliberal periods, the Chilean State has played a key role as the promoter and regulator of the more dynamic subsectors fruit farming, forestry and ago-industry. The use of instruments to affect demand, of intermediation mechanisms for services that are run by the private sector, and of development services that are provided by non-State entities have been determining factors, not only in providing the initial boost to modernize the agricultural sector, but also in ensuring that benefits reaped are gradually extended to the smaller and weaker segments of the Chilean economy and society. Most analysts tend to point to the bold and radical steps Chile took in redirecting its trade and exchange rate policies as lying behind the sudden rise in exports after the signing of the FTA (and despite the revaluation, in real terms, of the peso), but they often forget or underestimate the development policies and instruments that have formed part of Chile's export strategy since the outset.

Chile's privileged geographical position gives it certain comparative advantages. The creation of a climate conducive to private investment and business has helped Chilean agriculture sector successfully break into international markets. Chile has many natural and institutional factors in its favor to become a large fresh fruit and horticultural goods exporter, as well as a leading exporter of wines, dairy and meat products, and gourmet foods, such as olive oils, fine vinegars, cheeses, organic products, berries, dried fruits, and many other innovative products.

These factors alone would, however, only have improved the situation of the larger enterprises and turned them into the sole beneficiaries of the deregulation and liberalization of the agricultural sector. Development policies and instruments implemented by the military government had a tremendous impact on the development of the most diverse sectors, but concentrated on large exporters in the forestry and agricultural industry, particularly on the processing of sugar, rye, milk, rice, grapes, pork, poultry, juices and pastas. Successive democratic governments set about expanding, without substantially modifying, the instruments of State intervention to cover more kinds of enterprises with a view to ensuring the benefits of modernization reached small-scale traditional farming communities and small- and medium-sized farmers and agricultural goods exporters as well.

The opening and structural reform of the agricultural sector forced regions and producers to adapt as best as their capacities and resources allowed them. Results have varied considerably from one region, one product, and one producer, to another. The development instruments used in Chile, however, constitute an important toolkit to improve the competitiveness of the smaller enterprises. In this respect, one is left wondering why so much attention has been paid to the analysis of the macroeconomic measures underpinning the opening and modernization of the Chilean economy and its agricultural sector and so little to the microeconomic and development instruments that have accompanied the process. Without these instruments, the Chilean development model would lack two of its most attractive features its capacity to include all segments of society and its success in the fight against poverty.

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SECTION 3 COSTA RICA

ACRONYMS

CADEXCO	Chamber of Exporters
CAFTA-DR	United States-Central America-Dominican Republic Free Trade Agreement
CAT	Certificado de abono tributario
CBI	Caribbean Basin Initiative
CENPRO	Export Promotion Center
CINDE	Costa Rican Coalition of Development Initiatives
CNI	National Investment Council
GATT	General Agreement on Tariffs and Trade
MINEX	Ministry of Exports
PROCOMER	Foreign Trade Promotion Agency
USAID	United States Agency for International Development
WTO	World Trade Organization

SECTION 3 COSTA RICA

A. INTRODUCTION

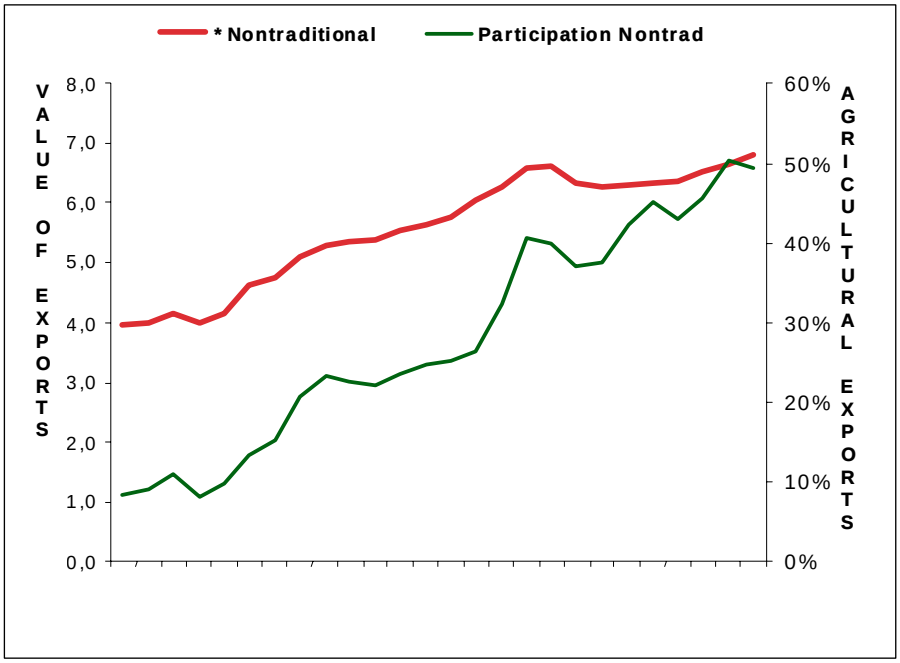
This document presents the main results of a bibliographical study of the performance of nontraditional agricultural exports in Costa Rica and their impact on rural development between 1984 and 2006. The document consists of four parts, the first of which is the introduction. The second part describes the evolution of nontraditional agricultural exports in Costa Rica since the mid-1980s, when the country embarked on a course of unilateral opening and export promotion. The third part discusses the main factors behind the sustained growth of these exports over the past two decades. Finally, the fourth part analyzes the empirical evidence on the impact that the rise in nontraditional agricultural exports may have had on rural development.

B. THE EVOLUTION OF NONTRADITIONAL AGRICULTURAL EXPORTS

Up to the end of the import-substitution period, Costa Rica's exports consisted mainly of four agricultural items: sugar, bananas, coffee, and beef. After the crisis that shook the economy at the end of the 1970s and beginning of the 1980s, authorities decided to abandon the import-substitution development model and to pursue economic opening instead. This meant diversifying exports by increasing the number and kind of products Costa Rica sold in the international market. This strategy was largely successful, especially in the agricultural sector. In 1984, Costa Rica's nontraditional agricultural exports were US$53.4 million and represented only 8 percent of total agricultural exports. Nontraditional agricultural exports include livestock and saltwater fish and seafood. By 2006, they had reached US$904.1 million and represented 49.4 percent of the Costa Rica's total agricultural exports. See Graph 1 below.

Graph 1: Costa Rica: Nontraditional Agricultural Exports

Value in US$ (as a natural logarithm) and relative participation

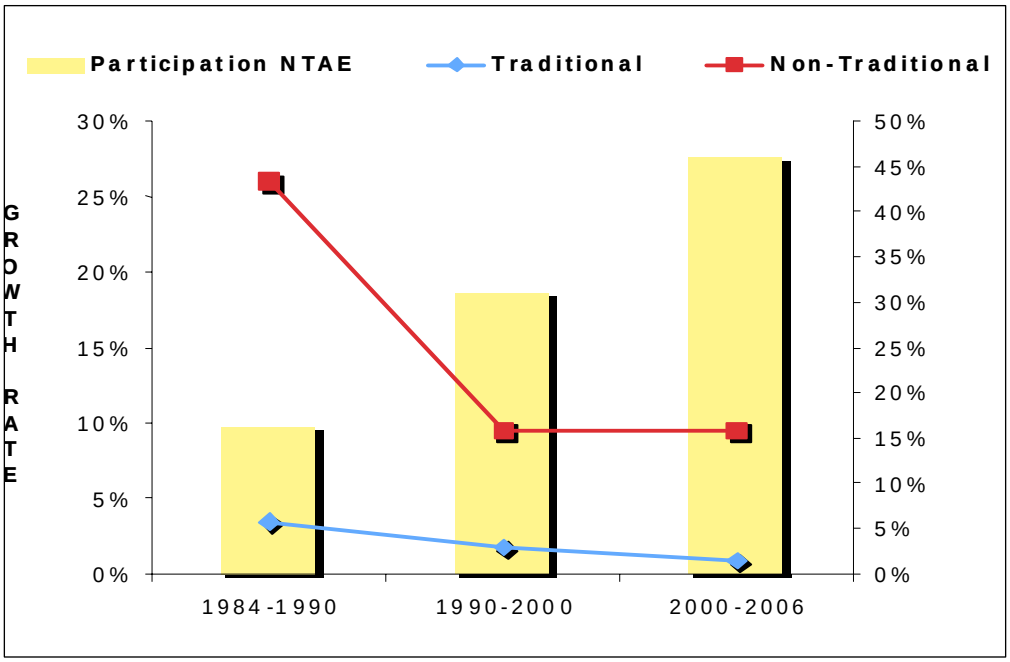


Source: Own calculations based on data provided by Banco Central de Costa Rica.

Nontraditional exports grew faster than traditional exports in Costa Rica's primary sector. As shown in Graph 2, nontraditional agricultural exports grew 3.5 percent annually between 1984 and 1990 and 0.9 percent from 2000 to 2006, meanwhile the growth rate of traditional agricultural exports fell from 26 percent to 9.4 percent in the same periods, respectively.

Graph 2. Costa Rica: Traditional and Nontraditional Agricultural Exports

Annual Growth Rates by Period and Relative Participation



Source: Own calculations based on data provided by Banco Central de Costa Rica

C. MAIN FACTORS BEHIND EVOLUTION OF NONTRADITIONAL AGRICULTURAL EXPORTS

In order to understand the positive evolution of Costa Rica's nontraditional agricultural exports during the economic opening process, it is important to understand the distortions generated by State intervention under the previous protectionist system. These distortions stemmed from a strong political bias against agriculture in favor of manufacturing and a strong anti-export (especially anti-nontraditional export) bias that obviously posed serious obstacles to any efforts to expand the country's exports. An analysis performed by Monge and Corrales (1988) studied the magnitude of these biases against exports in Costa Rica and found that the additional costs incurred by agribusinesses when import duties are placed on the primary inputs or capital goods they use in their processing operations have a negative effect on their competitiveness. As international price takers, agribusinesses are not in a position to pass on the additional cost to the final consumer. In other words, in this situation, there is an absolute bias against exports. Import barriers, especially in the form of restrictions on manufactured goods imports, constitute another kind of anti-export bias, albeit a relative one in this case, by making the manufacturing of goods for the small, protected domestic market more attractive than the production of goods for export. Basically, this means that under the import-substitution model adopted for more than three decades in Costa Rica, the prices of goods and services and the prices of production factors bore no relation to their relative scarcity, and the economy's resources were poorly allocated as a result. (Agarwala, 1983)

This hardly comes as a surprise, given that since the symmetry theorem expounded by Lerner (Lerner, 1936), economists have been pointing out that the erection of import barriers, whether they be tariff or non-tariff barriers, to any product constitutes a disincentive to export from the country in which they are imposed. Since the beginning of the 1980s, new theories on international trade have made it possible to explain and quantify, within a context of general equilibrium, how tariffs and other barriers to trade constitute an implicit tax on export operations.[1] This new approach, which is known as the shifting parameter, suggests that import barriers raise the cost of internal resources and tend to cause the overvaluation of the local currency. At the same time they reduce the competitiveness of a country's products in foreign markets, which discourages export activities. Using this approach, the implicit tax incurred in the case of Costa Rica's exports was estimated to be 66 percent of every percentage point increase in the tariffs levied on imports. (Monge y González, 1994)

D. ECONOMIC OPENING

To make the transition from an import substitution model to an export promotion one, the Costa Rican authorities decided to open up the economy. (Monge and Lizano, 1997) This basically entailed implementing a set of policies during the second half of the 1980s aimed at eliminating both absolute and relative biases against exports in the system. These policies included the unilateral opening of the Costa Rican economy to trade as of 1986 (through the gradual lowering of import barriers) and the establishment, in 1984, of three kinds of tax incentives for exports. These incentives included: total exemption from the requirement to pay import taxes on raw materials, inputs, capital goods, containers and packaging; exemption from the requirement to pay income tax for a period of 10 years; direct subsidies for exports on the basis of their FOB value (15 percent on average).

These incentives sought to level the playing field for Costa Rican exports with regard to their competitors in other countries.[2]

Changing direction. In addition to implementing trade liberalization policies and establishing tax incentives for exporters, the authorities introduced new policies aimed at boosting foreign sales of both primary products and industrial goods as part of the economic opening process. These new policies included keeping the exchange rate realistic and guaranteeing exporters automatic access to credit for their activities. (Delgado, 1990)

This change in direction in the management of the Costa Rican economy was based on the belief (which was subsequently, according to Sauma and Sanchez (2003), proven to be correct) that exports could drive the country's economic growth.

[1] See the works of Sjaastad (1980), Clements and Sjaastad (1981) and Greenaway and Milner (1984).
[2] For a more in-depth discussion of this topic, see Monge and Corrales (1988).

It should be pointed out that at the time that Costa Rica was implementing economic opening policies, most of the primary products and manufactured goods that the country could produce were, since 1984, beginning to enjoy free access to the United States market under the Caribbean Basin Initiative (CBI). This is undoubtedly another important factor behind the boom Costa Rica's primary product exports experienced from the second half of the 1980s onwards.[3]

Since the implementation of new economic policies and the entry into effect of the CBI, there has been a significant shift in the allocation of production factors; and its agricultural exports, especially to the United States, have grown notably and steadily over the past two decades.

Trade liberalization. The other important factor that has contributed to the sustained growth of Costa Rica's agricultural exports during the period under study has been the efforts by the Costa Rican government to build and develop a suitable institutional framework to support the pursuit of trade liberalization objectives and promote its exports to third markets.[4] The Ministry of Exports (MINEX) was founded in 1983, and the Ministry of Foreign Trade, which is still operating today, was founded in 1986. The process received active support from the public and private sector throughout the period. The public sector agencies involved included: the National Investment Council (Consejo Nacional de Inversiones, CNI), the Exports Processing Zone Corporation (Corporación de Zonas de Procesamento de Exportaciones), the Central Bank, and the Ministry of Finance. Private sector institutions played an important role in identifying export products and international markets and in providing technical assistance and training, etc. These included the Costa Rican Coalition of Development Initiatives (Coalición Costarricense de Iniciativas para el Desarrollo, CINDE) and the Chamber of Exporters (CADEXCO). CINDE was responsible for creating specific programs and projects to support the expansion of nontraditional exports by attracting foreign direct investment and building the capacities of national producers, especially farmers. To carry out this task, CINDE established a special agricultural division to develop, identify, and promote nontraditional agricultural products and agro-industrial goods in foreign markets, and focused its efforts on creating the business, commercial, and technological climate for the agricultural sector in order to develop the competitiveness needed to penetrate international markets. (Monge, 1990)

The Export Promotion Center (Centro para la Promoción de las Exportaciones — CENPRO) also played a highly significant role. It set up a one-stop window for exporters, a simple procedure whereby exporters could process paperwork for exports in approximately three hours. All they had to do was fill out a form that was then checked by the authorities. The center's other initiatives included the "Simples" project, which consisted of facilitating imports and the tax exemptions of companies that qualified for these either under the temporary admission scheme (maquilas), or by virtue of their export contracts, i.e., most of their exports consisted of nontraditional goods, or under the duty-free system. The "Visa" project shortened the time it took to obtain a residency visa

[3] For a discussion of this issue, see Monge and González (1994).
[4] Markets outside Central America.

for strategic employees hired by export companies. Previously this procedure, which had taken three months, was reduced to 72 hours.

In 1996, legislation was introduced to convert CENPRO into the current Foreign Trade Promotion Agency (Promotora de Comercio Exterior, PROCOMER), a semi-public entity responsible by law for promoting exports and investments in Costa Rica. Law 6955 (1984) established a series of incentives for nontraditional exports. These included: special port duties; the streamlining of export procedures; preferential interest rates on bank loans; and tax benefits, such as income tax exemptions for exporters of nontraditional products, tax discounts on investments in shares belonging to companies that export 100 percent of their production, exemption from the payment of import duties on the inputs required for, and the capital goods used in, the production of nontraditional exports, and the end of the taxation of maquila activities. This law also created two important export incentive programs: the Export Contracts System, and the Temporary Admission Scheme.[5] In most cases, the export contracts had a duration of 12 years, or 15 years in the case of companies that accepted reductions in the discounts offered through the tax credit scheme (certificados de abono tributario, CAT) in 1990. Under this scheme, the exporter would receive 15 to 30 percent of the FOB value of its nontraditional goods exports in certificates that could be used to pay taxes. The size of the tax credit depended on the added value of the exports: if the national added value was 35 to 50 percent, the CAT would be 15 percent; if the national added value was between 51 and 65 percent, the CAT was 20 percent; and if the national added value was more than 66 percent, the CAT was 25 percent of the value of the exports.

Export incentives. Since 1990, a series of important modifications were made to the export incentive system, especially to the CAT. First, the tax credit was lowered to 15 percent and it was made only applicable after 1996. Next, two new alternatives to the CAT were proposed: (a) an extension of their use up to 1999 for companies that accepted a 30 percent reduction in the tax credit granted; and (b) the imposition of a 25 percent tax on the nominal value of the CAT as of 1992 and a guarantee that the incentive could still be enjoyed after 1996. Most companies opted for the latter. Since 1997, all exporters of nontraditional goods to third markets, however, must pay income tax on 100 percent of their export-generated income. This tax was introduced in compliance with the commitments Costa Rica assumed with the World Trade Organization (WTO).

To guarantee fair conditions for exporters of industrial goods once the export contracts expired (in 1996 or 1999), the Costa Rican authorities established two new incentives. One for companies producing materials used to package or protect merchandise and another for other industrial companies exporting their products to third markets. In the case of the agricultural sector, Law 7293 was passed to exempt operators in this sector from paying import duties and sales taxes on goods used in their production processes, regardless of whether their production was export-oriented or not.

Trade agreements. Finally, it should be pointed out that in addition to the direct incentives mentioned in this document, Costa Rica signed a number of trade agreements

[5] A detailed explanation of these schemes is to be found in Monge and Corrales (1988).

during the economic opening process that were significant to the export sector. These include most notably Costa Rica's adhesion to the General Agreement on Trade and Tariffs (GATT) in 1990, and its incorporation into the WTO in 1995. Moreover, in addition to the free trade agreement with Central America that was in effect during the import-substitution period, Costa Rica has signed other free trade agreements with countries such as Mexico, the Dominican Republic, Chile, Canada, Panama, and Trinidad and Tobago.

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SECTION 4 DOMINICAN REPUBLIC

ACRONYMS

ACP	African, Caribbean, and Pacific Group of States
CAFTA-DR	United States-Central America-Dominican Republic Free Trade Agreement
CARICOM	Caribbean Community and Common Market
CEDAF	Center for the Development of Agriculture, Livestock, and Forestry
CEI	Export and Investment Center
CNC	National Competitiveness Council
CONIAF	National Agriculture, Livestock, and Forestry Research Council
CPP	USAID's Competitiveness and Policy Program
CVMA	Center for Agriculture and Livestock Materials
EU	European Union
FAMA	Agricultural and Environmental Foundation
FONDEC	National Competitiveness Council Competitiveness Fund
FONIAF	Agricultural and Forestry Research Fund
FONTAGRO	Regional Fund for Agricultural Technology
GDP	Gross Domestic Product
CGIAR	Consultative Group on International Agricultural Research
CRSP	Collaborative Research Support Program
IAD	Dominican Agrarian Institute
IDB	Inter-American Development Bank
IDIAF	Dominican Institute of Agriculture, Livestock, and Forestry
IICA	Inter-American Institute for Cooperation on Agriculture
IMF	International Monetary Fund
INESPRE	National Price Stabilization Institute
ISA	Superior Institute of Agriculture
JAD	Dominican Agriculture and Livestock Board
LAC	Latin America and the Caribbean
NTAE	Non-Traditional Agricultural Export
PATCA	IDB's Support for the Transition to Competitive Agriculture Project
PROAGRO	Directed Assistance Program to Agriculture and Livestock Production
PROMANGO	Peruvian Mango Growers Association

PROSEMA	Agricultural Machinery Services Program
SEA	State Secretariat for Agriculture
SEIC	State Secretariat for Industry and Commerce
SNIAF	National System for Agriculture and Forestry Research
UN-ECLAC	United Nations Economic Commission for Latin America and the Caribbean
USAID	United States Agency for International Development

SECTION 4 DOMINICAN REPUBLIC

A. INTRODUCTION

When CAFTA-DR entered into force on March 1, 2007, the Dominican Republic became the United States' largest trading partner under the agreement. A middle-income country with 40 percent of its 9.1 million citizens residing in rural areas, the Dominican Republic has enjoyed economic growth rates comparable to those of Chile and Costa Rica, particularly during the 1990s. While sustained economic and trade policies catalyzed this high growth, they have been insufficient to reduce poverty in a sustainable manner throughout the country. As a result broad-based economic growth has been limited, especially for rural residents.

B. MACROECONOMIC OVERVIEW

Over the last forty years, the Government of the Dominican Republic (GODR) actively promoted investment through tax and tariff concessions to the private sector, which ultimately led to protectionist interventions and import substitution investments. In general, these policies favored the urban sector and generated negative terms of trade in the rural sector.

This import substitution and protectionist structure left the Dominican Republic vulnerable to global market shifts. This situation was further exacerbated by price controls, inappropriate and unrealistic exchange rates, unfavorable export trade policies, and other structural inefficiencies. The increase in oil prices in 1979 and a major drop in world sugar prices in 1981 led to significant trade and fiscal imbalances for the country, with the government facing a serious fiscal deficit due to losses incurred by public sector enterprises.

In the mid 1980s, the GODR attempted to restore economic growth through an ambitious public investment program. The direct result of this program, however, was high inflation and rapid depreciation of the national currency, which was the prelude to one of the worst economic crises faced by the Dominican Republic in the twentieth century. By the late 1980s, the consolidated fiscal deficit reached 5 percent of GDP, inflation was 79 percent, and the official and private markets exchange rates depreciated 60 percent and 36 percent, respectively.

In the 1990s, major macroeconomic reforms were introduced along with complementary institutional and regulatory structural reforms to promote private sector investment. This radical shift stimulated a modernization process and a gradual reduction of protectionist measures and government services in most economic sectors. Macroeconomic interventions and growth in foreign trade zones, telecommunications, and tourism contributed to a per capita income average increase of 4.1 percent from 1991 to 2000, and of 2.8 percent from 2001 to 2002 even though most of the LAC region slumped during the period. In 2003, principal banks failed, leading to a significant financial crisis, major

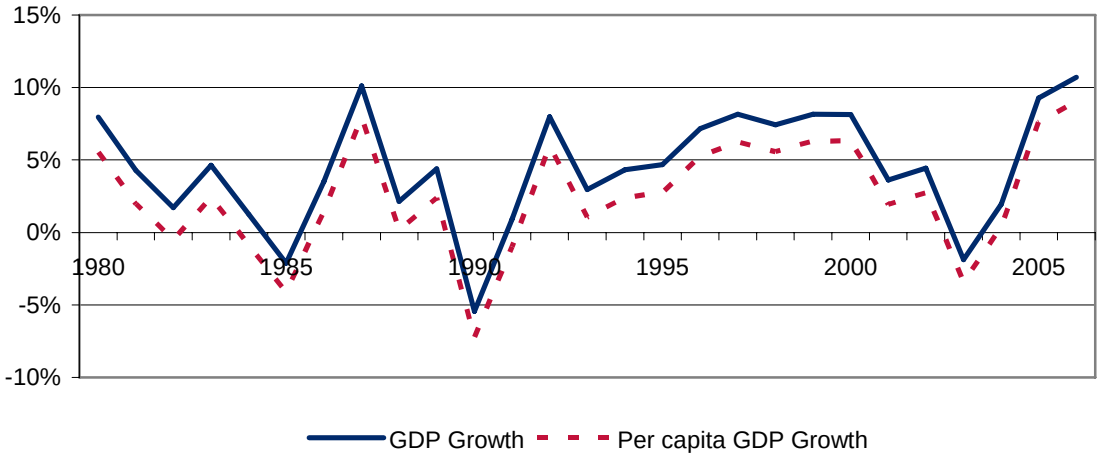
peso depreciation, and alarmingly-high inflation in 2003 and 2004 on the order of 27 percent and 51 percent, respectively.

Nevertheless, there are many opportunities on the horizon. Since 2004, economic stability has improved due in part to the finalization of an agreement with the International Monetary Fund (IMF). The DR has finalized trade agreements with Central American countries, CARICOM, and the U.S. (CAFTA-DR) and is currently negotiating agreements with Panama, Taiwan, EU, Canada and the African, Caribbean and Pacific Group (ACP).

C. KEY ECONOMIC INDICATORS

Gross domestic product trends. Graph 1 shows that the Dominican Republic enjoyed generally stable and robust growth rates over a 30-year period as the economy increasingly shifted from primary production to services and manufacturing sectors. An average of real GDP growth rates in the 1980s (3.2 percent) and 1990s (4.6 percent) show higher and more stable levels than most LAC countries. A particularly illustrative example of the economy's resiliency is the average 5.6 percent GDP growth between 1996 and 2005 despite the 2003 - 2004 economic collapse. Furthermore, just two years later in 2006, the Dominican Republic achieved 10.7 percent growth, the highest in 19 years and the highest growth in LAC for that year.

Graph 1: GDP and Per Capita GDP Growth, 1980-2006 (Annual % Change)



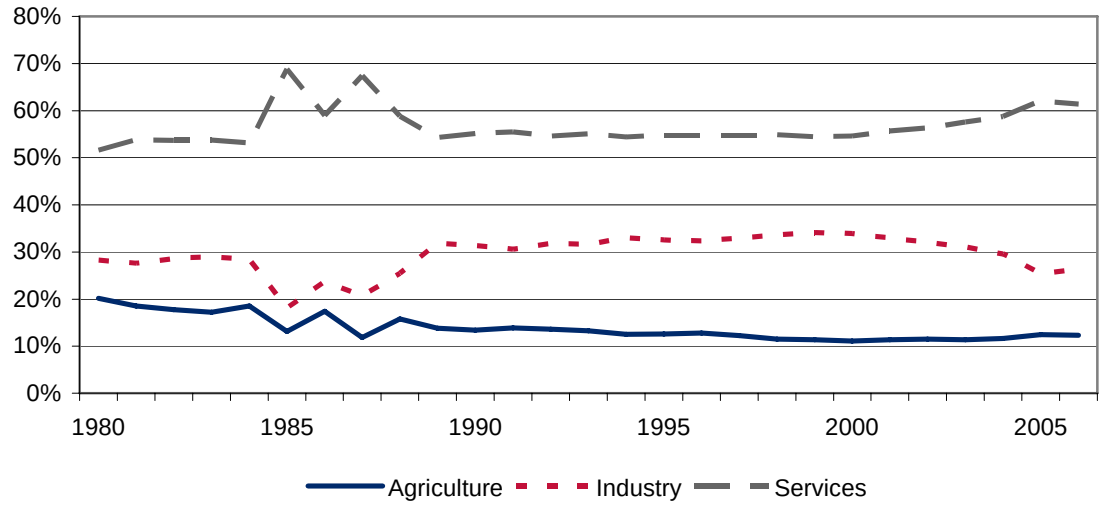
Source: World Bank 2007

Despite this growth, there has been little impact on poverty; both on a national level and in the rural sector (see discussion on poverty, below). One explanation for the lack of impact that economic growth had on the poverty level is that the GDP contribution of the agricultural sector, wherein the majority of the poor are economically active, has declined so irregularly compared with expectations usually observed under Structural Transformation. As observed in Graph 2, agricultural sector's value added contributions initially reflects notable and volatile shifts, then slowness in the 1990s, and most recently,

is actually increasing. Over the same period however while initially industrial and services also slowed volatility, since the late 1990s the industrial sector has declined sharply while the service sector grew, but at levels insufficient to "pull" surplus rural work force resulting in limited job and wage growth. Note for example that even during the stable strong economic growth period of 1995-2000, the service sector's main growth sub-sectors — communications, construction, and tourism — had low levels of employment.

Furthermore it is important to observe that these traditional sector-specific tracking tools cloud important economic contributions realized from increasingly important multi-sector linkages. For example, according to a recent analysis, "the majority of the economic structure around the nation's municipalities revolves around the multiplicity of production, marketing, and services associated with the agricultural sector" (Peña 2006). These critical linkages are generally associated with primary product processing and service interventions, that if appropriately facilitated will further stimulate wage and job growth. For example, primary agricultural products constitute only 11.9 percent of the nation's GDP; however, when industrial and service sector linkages with agriculture are taken into account, these additional contributions (16.6 and 12.5 percent respectively) bring agriculture's share of GDP to 46 percent. Clearly, expanding these linkages could have significant upstream and downstream economic impact.

Graph 2: Sector Contributions, Value Added, 1980-2006 (% of GDP, Current US$)

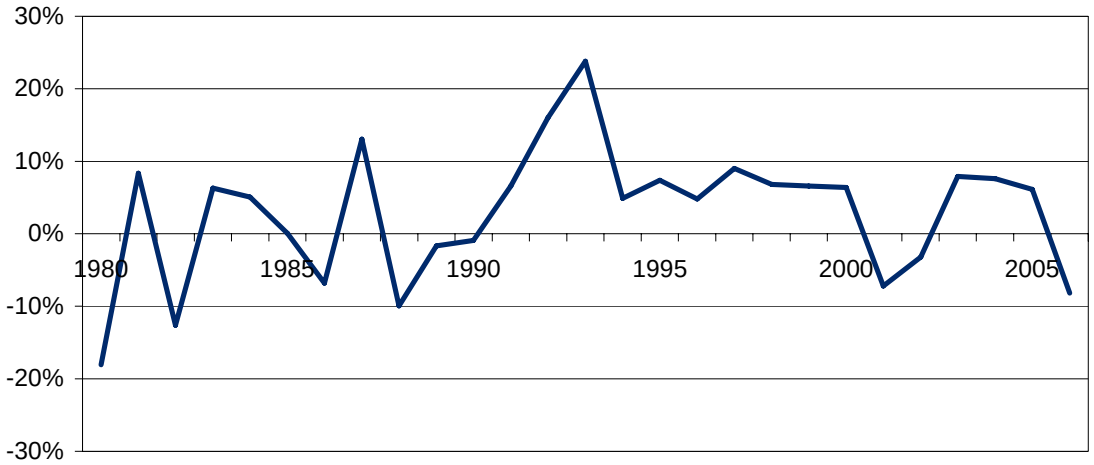


Source: World Bank 2007

Trade expansion. Since 1990, the Dominican Republic has increasingly become one of the most open LAC countries (CNC 2007; Arocha, Bolnick and Ruengsorn 2006). Highly successful macroeconomic reforms have resulted in expanded sales to the U.S. and increased market share in the EU, CARICOM, Central America, and Haiti, the Dominican Republic's second largest trading partner with 2005 exports valued at nearly US$200 million (CEI-RD 2007). Additionally, the Dominican Republic has dedicated special policy attention and support to the formation of Duty Free Zones.

The Dominican Republic's initial dependence on primary products and the financial collapse in the late 1980s resulted in highly variable exports due mainly to commodity and weather fluctuations. However, starting in the early 1990s, exports exhibited more stable growth such that between 1992 and 2004, exports grew from $3.1 billion to $5.7 billion at an average annual rate of 5.7 percent (SEIC 2007). Graph 3 below illustrates these dynamics to include increasingly downward trends since 1993, using data from the World Bank's World Development Indicators. [1]

Graph 3: Exports of Goods and Services, 1980-2005 (Annual % Growth)



Source: World Bank 2007

These changing trends are also the result of inter and intra-sectoral shifts occurring at various rates and levels across the economy. For example, trade in the services sectors has been positive, while manufacturing exports from Duty Free Zones have struggled and gradually lost market share in the garment sub-sector (Arocha, Bolnick and Ruengsorn 2006). From 1996 to 2002 total agriculture trade, including products processed in the Duty Free Zones, increased from $580 million to $662 million — almost 3 percent per year. However, exports from traditional crops declined from $309 million to $153 million due to falling coffee, cacao, sugar and tobacco commodity prices (de los Santos and Gomez 2004). This decline was partially offset by successful entrance into the organic products market, where the Dominican Republic quickly became a leading global supplier of organic cacao, coffee, bananas, and mango. These specialty products not only fetch much higher prices, but they also generate greater value-added than traditional products due to their more specialized and demanding crop management needs.

[1] As explained in Volume 1 Section 3, for various reasons export totals for the region have been somewhat distorted by the various standards countries employ. The Dominican Republic has changed its standards such that the 1993 spike is actually a "statistical artifact" rather than a real phenomenon.

Table 1: Dominican Republic Exports, FOB, 1998-2005 (US$1,000)

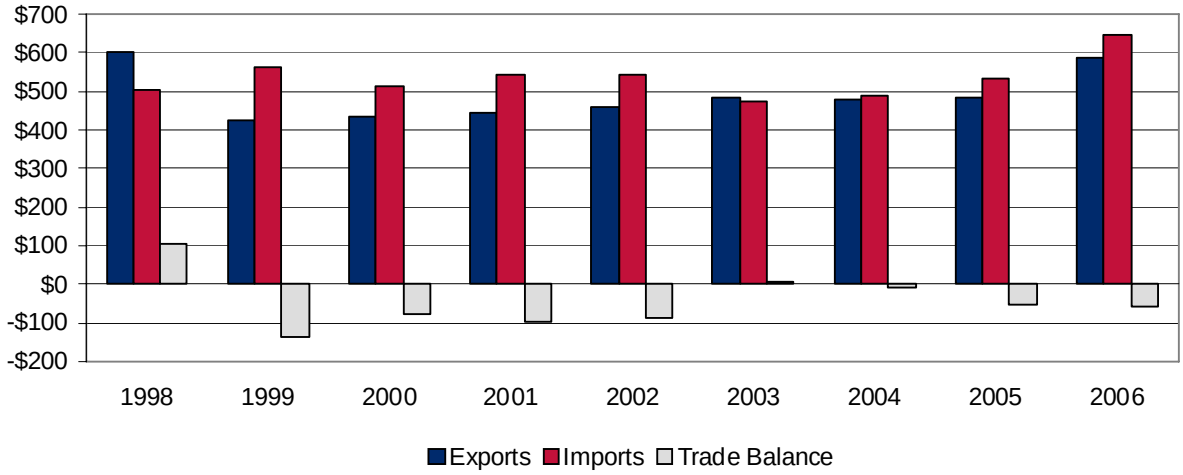
Products	1998		1999		2000		2001		2002		2003		2004		2005 *	
	Volume	Value	Volume	Value	Volume	Value	Volume	Value	Volume	Value	Volume	Value	Volume	Value	Volume	Value
I. Traditional Products		**507,321**		**342,730**		**430,799**		**318,179**		**360,667**		**449,053**		**588,865**		**549,479**
Sugar and Sugarcane Derivatives	425,911	142,201	309,765	89,609	332,765	89,569	300,192	88,753	327,296	99,178	312,908	96,947	316,409	94,079	333,731	101,125
Coffee and Derivatives	21,801	67,070	9,944	23,795	11,624	33,034	6,441	11,100	6,810	12,801	8,927	16,543	2,766	5,740	2,535	7,644
Cacao and Derivatives	56,233	87,126	22,206	24,685	33,624	26,149	42,984	42,718	43,342	66,975	45,147	77,022	42,301	55,895	27,244	41,618
Tabacco and Derivatives	10,777	63,323	11,807	53,827	13,200	44,693	7,927	30,443	5,586	25,471	5,808	19,882	7,116	43,173	3,717	18,288
Minerals	366,033	147,601	190,188	150,814	71,644	237,354	59,735	145,165	60,437	156,243	69,699	238,659	74,530	389,979	68,902	380,804
II. Non-Traditional Products		**85,333**		**97,659**		**130,996**		**143,443**		**144,315**		**150,466**		**153,342**		**142,738**
Agriculture	*188,971*	*44,399*	*209,413*	*59,849*	*364,307*	*83,329*	*272,873*	*93,351*	*229,194*	*100,624*	*297,700*	*101,330*	*230,846*	*113,777*	*340,877*	*99,905*
Avocado	8,726	5,362	11,871	7,605	7,932	6,743	10,321	8,652	11,247	13,081	17,140	9,010	13,554	11,522	17,029	12,385
Ajíes y pimientos	3,061	1,462	2,973	1,369	3,680	2,392	3,846	2,951	3,062	3,295	4,921	4,170	4,929	3,672	6,056	3,086
Auyamas	2,212	601	2,385	770	2,855	942	1,807	477	1,405	522	1,660	304	1,576	221	689	149
Sweet potato	9,087	2,908	8,929	2,960	9,766	3,516	9,627	3,748	7,238	3,534	7,463	1,849	4,699	1,676	7,236	1,435
Eggplant	3,611	1,261	3,192	1,099	4,691	1,595	3,840	1,564	2,624	1,618	3,371	1,919	3,228	1,591	2,910	779
Beef	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Beeswax	81	320	68	260	84	182	187	54	29	100	66	55	0	0	0	0
Dry coconut	29,408	6,287	21,294	6,037	26,836	6,489	30,684	7,560	21,582	6,943	30,927	7,518	27,509	7,153	19,492	8,624
Cundeamor	2,105	755	2,169	768	2,529	907	2,669	1,160	2,091	1,370	3,650	4,117	3,082	1,530	2,304	647
Flowers	2,158	2,014	1,107	1,451	2,737	3,513	1,705	3,001	1,117	2,711	1,308	2,002	1,234	1,799	1,197	1,782
Fruits & vegetables	579	333	39	14	114	37	219	135	14,749	9,267	40,250	16,257	28,919	10,168	35,978	12,168
Guandules	459	492	198	324	220	254	146	204	53	110	107	103	41	49	70	58
Banana	67,496	13,027	61,129	16,582	79,004	19,755	130,632	36,173	112,201	32,981	127,119	34,144	102,023	30,946	163,510	44,641
Lambies	48	359	161	270	244	326	808	859	475	1,227	687	1,157	0	0	0	0
Melons	29,288	4,316	42,872	7,539	46,640	11,382	34,709	8,366	27,174	9,927	24,118	7,000	10,334	2,870	11,032	6,352
Honey	139	145	48	51	205	182	258	303	99	112	186	181	134	158	200	254
Sweet oranges	7,784	2,218	4,567	1,745	5,667	1,486	4,124	1,148	2,089	977	1,462	417	1,214	324	1,400	585
Pineapple	2,113	719	2,025	618	2,765	797	2,956	1,006	1,179	687	1,809	830	970	407	392	184
Plantain	869	351	32,137	2,937	142,356	13,010	6,055	1,987	716	271	4,340	1,258	4,207	2,170	4,005	1,722
Tomato	122	65	41	35	91	72	113	62	198	149	457	216	1,175	502	1,934	1,249
Vainitas	2,528	1,286	2,688	1,382	3,296	1,776	3,224	1,893	2,580	2,439	2,962	1,882	2,715	1,793	2,202	550
Yautía	16,715		9,467	6,015	22,433	7,938	24,874	12,028	17,129	9,206	23,032	6,653	18,901	7,079	8,576	3,168
Cassava	382	118	53	18	162	37	69	20	157	99	665	289	402	105	252	88
Industrials	***104,493***	***40,934***	***106,322***	***37,810***	***117,026***	***47,667***	***139,828***	***50,092***	***84,059***	***43,691***	***98,133***	***49,136***	***83,403***	***39,565***	***71,442***	***42,834***
III. Other, including Goods Acquired at Port		**287,667**		**462,450**		**535,279**		**476,503**		**487,004**		**615,000**		**661,787**		**845,757**
IV. Free Trade Zones		**4,100,200**		**4,331,500**		**4,770,609**		**4,481,642**		**4,317,255**		**4,406,758**		**4,685,241**		**4,749,650**
TOTAL GENERAL		**4,980,521**		**5,136,680**		**5,736,687**		**5,276,324**		**5,164,926**		**5,470,811**		**5,935,893**		**6,144,886**

*Preliminary figures
Source: Central Bank of Dominican Republic

Growth in Dominican exports from 1998 to 2005 is shown in Table 1 on the previous page. Between 1998 and 2005, the value of traditional exports grew eight percent; exports from Free Trade Zones grew 15.8 percent; non-traditional agriculture and industry exports grew 67.3 percent with agriculture growing 125.0 percent; and industry 4.6 percent. It is worth noting that industry is comprised of 20 products, of which 12 are agriculturally based.

There is a robust agricultural trade between the United States and the Dominican Republic. While no strong trend is evident, Graph 4 shows that the United States has benefited from a positive trade balance since 1999, with the exception of a slightly negative balance in 2003, after which total values for both exports to and imports from the United States have increased.

Graph 4: Agricultural Trade Balance: Dominican Republic – United States 1998-2006 (US$ Million)



Source: CARANA Corporation with U.S. International Trade Commission data

Poverty. Economic growth and increased exports have not significantly reduced poverty. As a matter of fact, poverty has actually increased, particularly in the rural sector. During the 1997-2002 economic boom, the percent of the population living below the poverty level remained virtually unchanged from the initial 28 percent. However, during the 2002-2004 economic crisis, poverty increased to 42.2 percent of the population (3.7 million) (World Bank and IDB 2006).[7]

[7] While thus study consulted various respected international and national institutions dealing with rural poverty, it was found that estimates of poverty and extreme poverty in the rural sector of a country can vary depending on source and methodology. To present standardized cross-country comparisons, as described in Volume I, Annex C-Tables C.1 and C.2, UN-ECLAC data were used. As noted in Volume I, 51.4% of the Dominican Republic's rural population lived in poverty (less than US $2 per day), while 28.8% of the rural population lived in extreme poverty (less than US$1 per day) in 2005.

Unemployment has fluctuated between 15 and 19 percent in recent years and is currently 16.5 percent (SEA 2007). The Dominican Republic's 2.5 percent population growth and declining jobs in the manufacturing (particularly within the free trade zones), hotel and restaurant services (tourism), and mining sectors further exacerbate unemployment (World Bank and IDB 2006).

Of the 3.2 million people living in the rural sector in 2004, 1.8 million (55.7 percent) lived below the poverty line and 778 thousand (24.3 percent) lived in extreme poverty (Ibid.). Increased poverty following the financial crisis of 2003, compounded by the limited capacity for other sectors to create new jobs, led the World Bank to conclude that many agricultural producers and workers have in effect become entrapped in low-paying jobs. Skills training and complementary investments in basic infrastructure could result in improved wages and profits (Ibid.). Without new opportunities and investments in the rural area, migration to urban areas has increased, stimulating greater inequities and on-migration to the U.S.

D. RURAL SECTOR DYNAMICS

With a lack of employment opportunities in other sectors, an increasingly less productive agricultural sector continues to be a source of ever-growing employment for many rural Dominicans as well as an unknown number of Haitians (due to a lack of solid data). Traditional "push" and "pull" dynamics to expand off farm opportunities are not occurring at sufficient levels. Strangely, while employment in the agricultural sector has remained stagnant over the last 10 to 15 years and as agriculture's contribution to GDP has decreased slightly and recently actually grown the sector continues to offer increased numbers of low paying employment opportunities (Central Bank 2005). These anomalies indicate serious structural challenges that currently are receiving little attention. In effect, increasing the supply of labor to a sector without increasing the demand for labor in that sector or expanding productivity will have the undesirable consequence of driving down that sector's wages and thereby affecting national wage and job growth. It will require more than "market forces" to break these dynamics. The section below highlights the multiple constraints to growth in the rural sector.

Prevailing protectionist policies constrain optimal resource allocation and export growth. Despite some notable positive experiences with successful macro policy interventions in key sectors over the last decade, the continuation of interventions and subsidies in the Dominican Republic's agriculture sector, drains limited resources that as currently employed, do little to impact the persistence of rural poverty. These practices have fostered protectionist biases, led to higher consumer prices for basic foods, stymied more remunerative enterprise choices, led to inefficient use of land and labor production factors, and disproportionately limited rural investment.

Protectionist practices and institutions, which originated in the 1970s, generate strong distortions favoring rent seekers, and facilitate political decisions that have culminated in unsustainable inefficiencies throughout the production and marketing systems. Therefore, while high exchange and interest rates are major impediments to greater rural sector

development, the structural problems resulting from these policies are the principle constraint for future development (IDB 2001).

Market interventions derive from a system of institutions including the National Price Stabilization Institute (INESPRE) which intervenes in the agriculture market to stabilize prices, particularly in the rice and dairy markets; the Sales Center for Agricultural and Livestock Materials (CVMA), which assists cooperatives and producer associations in obtaining cheaper inputs, machinery, and equipment products; the Agricultural Machinery Services Program (PROSEMA), which offers basic machinery services for crop production and harvest; the Dominican Agrarian Institute (IAD), which assists about 60,000 producers, occupying 12.6 percent of the arable land, where land investments are constrained by legal impediments and property titles (Guerrero 2006); and the Agrarian Bank, which operates an interest subsidy program. In addition, production subsidies were provided in land preparation and leveling, seed and planting material distribution, and maintenance and rehabilitation of irrigation systems (de los Santos and Gomez 2004).

Protectionist measures limit consumer choice by implementing import barriers and deterring competitiveness among agricultural producers (IDB 2001). A special study financed by the IDB's Support for the Transition to Competitive Agriculture project (PATCA) utilized a series of key indicators to assess competitiveness and the impact of protectionist policies across key product lines. Indicators included the tariff impact on product prices, taxes on government monopolies, subsides, distortion from inputs and production, and comparative production costs. This methodology was applied across 22 products, aggregated into five categories: 1) traditional export crops (sugar, cacao, coffee); 2) crops for basic food consumption (plantain, cassava); 3) imported food products (rice, beans, onions, garlic); 4) non-traditional exports (banana, avocado, mango, eggplant, green beans, bitter melon, cucumber, pepper, pineapple); and 5) livestock (milk, pork, beef, poultry).

The PATCA study revealed that while sugar, cacao, coffee, and mango are particularly competitive, basic food products, such as rice, beans, onions, garlic, and milk, were not competitive but received high levels of protection. Notably, all non-traditional export crops were affected negatively by around 50 percent due to the prevailing multiple protectionist measures, with pineapple being the most and mango the least. Also, all livestock producers were penalized for higher prices related to prevailing protectionist policies. It is worth noting that a sensitivity analysis assuming a 20 percent increase in land productivity (the Dominican Republic is currently at "medium" levels of productivity) indicated that these same commodities could in fact become competitive (Peña 2006). Rice receives a great deal of attention, as measured by increased Agrarian Bank lending (reaching 62 percent of the sector's needs), large use of irrigated water (60 percent of total), land preparation services, and harvest futures (Ibid.).

Three significant conclusions derived from this review are: 1) the most vulnerable, and least competitive commodities — rice (21 percent), beans (2 percent), onions (2 percent), garlic (1 percent), and dairy (27 percent) — represented 53 percent of the sector's total GDP in 2005; 2) 111,000 producers or over 20 percent of the total farm population, were

engaged in the production of the least competitive products (rice at 30,493 farms; beans at 30,000 farms; onions at 2,000 farms; garlic at 520 farms; and milk at 48,054 dairies) (JAD 2007); and 3) rice, milk, and beans are the three largest contributors to the sector's GDP, comprising 50 percent of the total. Notably, the three most significant products in GDP terms are also currently the most protected and unlikely to be competitive under CAFTA-DR. Meanwhile, the three most important export products (sugar, cacao, and tobacco) form only 17 percent of the sector's GDP.

Additional constraints to growth. A variety of other factors related to land, human capital, productivity, and access to finance, further constrain economic and export growth in the Dominican Republic. The Dominican Republic is characterized by a high degree of land fragmentation, which has produced inefficiencies in productivity and social inequities (Peña 2007). Despite some indications that land productivity is improving, land expansion has been the main driver of production growth (de los Santos and Gomez 2004). Labor productivity is difficult to gauge due to insufficient information on unregistered Haitian workers (Ibid). The 26 percent illiteracy rate indicates that human capital also remains a challenge (SEA 2005). High costs and the lack of products tailored to agriculture cycles seriously constrain the agriculture sector's access to credit. Of the total lending to the agriculture sector, less than 4 percent is estimated to come from commercial lenders and, of this, 80 to 90 percent is from the Agrarian Bank (Lantigua 2006).

Poverty promotes poor natural resource management. Difficulties meeting basic food security needs can motivate forest, soil, and water base exploitation, such as invading steeped, fragile areas inappropriate for permanent cropping. While 20 percent of the Dominican Republic's total land base is deemed suitable for agricultural purposes, in 1998, 55 percent was being cultivated. This unsustainable use, driven by poverty and the expansion of the tourist industry outside urban centers, has led to deforestation, water contamination, and agricultural runoff to the degree that the Dominican Republic's score on the international Environmental Sustainability Index (ESI) is much poorer than the average LAC ranking (Arocha, Bolnick and Ruengsorn 2006).

Shifts from agricultural to non-agricultural employment. The World Bank's 2006 *Poverty Assessment for the Dominican Republic* found that the poorest residents in the Dominican Republic's rural sector were most often engaged in less remunerative agricultural activities. These individuals are essentially trapped due to their low educational attainment (88 percent have only primary education) and older age (most are older than 40). Rural residents who are engaged in a variety of non-agriculture jobs, in fields such as such personal services, transport, artisanry, sales, etc., were better off vis-à-vis their peers. The study concludes that transitioning employment to the non-agriculture sector is an effective way to reduce rural poverty and should be accelerated (World Bank and IDB 2006). However, until more remunerative employment options are available on a larger scale the rate of transition will be slower (Ibid.).

E. AGRICULTURAL SECTOR DIVERSIFICATION OPPORTUNITIES AND SUPPORT UNDER CAFTA-DR

Large numbers of producers grow crops that generate less returns and have fewer value-added multipliers than non-traditional food crops, which tend to require more labor and foster more productive links with other sectors (i.e., product processing, transport, marketing, shipping, etc.). For example, production of organic cacao, coffee, bananas, and mangos requires two to three times more workers than basic grains on the production side alone. In addition to these on-farm jobs, these products generate considerable off farm labor (i.e. product sorting, packing, processing, transporting, and marketing).

Expanding agro-industrial processing and manufacturing is one of the Dominican Republic's promising prospects in the medium to long-term. This was underscored in a recent analysis which states that: "because growth has been centered around crops with limited domestic markets that are not competitive in the international market, agricultural growth will only be sustainable if the diversification trend towards more competitive and exportable products is maintained" (de los Santos and Gomez 2004).

The Dominican Republic has promising opportunities within regional markets as well as in the U.S. and EU markets. The Dominican Republic is well positioned to expand its already robust informal trade with Haiti in fresh and processed agricultural products, now estimated at over US$200 million per year. The Dominican Republic has also established itself as a leading supplier of quality organic products to Europe and the U.S., and expanded its organic product exports by 7 percent in 2006 (Brechelt 2004). Detailed analysis done for the Ministry of Agriculture by the IDB concluded that comparative advantages for both traditional and non-traditional exports can be gained by employing higher levels of technologies (de los Santos and Gomez 2004; Peña 2006).

F. DOMESTIC AND INTERNATIONAL EFFORTS TO FACILITATE RURAL DIVERSIFICATION

Since CAFTA-DR has entered into implementation in the Dominican Republic, rural agricultural diversification has become a topic of emerging importance. This section provides background on the organizations visited and their ongoing activities while Section F provides an overview of the perspectives expressed by the stakeholders.

Public sector. The State Secretariat for Agriculture's (SEA) 2007 Operational Plan summarizes their current strategy and addresses new opportunities and challenges related to free trade agreements. SEA's vision places importance on "the reform and modernization of the sector by stimulating competitiveness and sustainability, while contributing to improved social equity" (SEA 2007). The Secretariat plans to advance its vision through: institutional reform policies; training and strengthening human resources; land titling and land market liberalization; improved research systems; improved productive infrastructure; improved agro-business practices; strengthened sector financing; competitive participation in sector markets; and expanded rural development services.

While currently the Dominican Republic does not have a strategy to specifically address the need for rural agricultural diversification, a package of draft laws for Modernization of the Public Agricultural Sector, are being reviewed before being submitted to Congress later this year. It was mentioned by public sector representatives that this reform package provides an institutional base to be directly responsive to today's challenges and opportunities to help advance the rural diversification process. This legislation has stimulated great optimism locally.

Nevertheless, major structural reforms are still required since the bulk of the agricultural budget (72 percent) is allocated to support traditional production, irrigation, and credit programs (i.e. the Agrarian Bank). This leaves only 5 percent to support broader public good research, extension, and plant and animal health services. Most public sector spending (82 percent) supports goods and services that can be provided more efficiently from traditional private sector purveyors. This means that only 18 percent of public sector spending supports public services that the private sector is unlikely to support (IDB 2001; de los Santos and Gomez 2004; Peña 2007).

The State Secretariat for Industry and Commerce (SEIC) is the institution mandated to implement and administer trade treaties. SIEC submitted the Dominican Republic's revised National Action Plan for CAFTA-DR at the February 2007 CAFTA-DR Trade Capacity Building workshop. This plan is the standard instrument to coordinate capacity-building activities. It outlines the following priority areas: 1) reform and modernization of customs; 2) illegal trade practices, controversy resolution and safeguards; 3) SME capacity to compete and export; 4) industrial re-conversion; and 5) national quality standards system (SEIC 2007).

The National Competitiveness Council (CNC) was created in 2001 to work with private, governmental, and civil sector entities to formulate a national strategy and implement a program to enhance national competitiveness. With assistance from USAID, UNDP, and the IDB, the CNC produced the "National Plan for Systemic Competitiveness." This plan incorporated considerable research by international experts and findings from extensive national dialogues to articulate a vision and growth strategy for the Dominican Republic. The Plan states: "For 2020, the Dominican Republic will become a country completely integrated into the global economy using this competitive, sustainable, and equitable [strategy]" (CNC 2007). The Strategy considers CAFTA-DR to be a special opportunity for the nation to pursue this vision, but one that will require focused effort across the business community, productive sectors, government, workers, universities, and civil society.

The Plan targets five key sectors to expand exports: 1) free trade zones, 2) tourism, 3) agro-business, 4) construction and housing, and 5) telecommunications (CNC 2007). For agro-business, special emphasis is given to growth that transforms the Dominican Republic's natural land and labor endowments into competitive advantages. The plan builds on initial experiences with the value chain and cluster methodologies to ensure that fresh and value-added products are efficiently provided to the U.S. and European markets. The cluster approach stimulates sustainable cooperation among small and

medium producers and enterprises to achieve economies-of-scale, reduce transaction costs, and increase access to value-added opportunities. The Plan targets five promising product clusters (banana, avocado, pineapple, mango, and tobacco) and provides assistance related to technology innovation, input supply, production and processing, product distribution, and marketing (Ibid.). IDB funding supports the Competitiveness Fund (FONDEC), a competitive grants fund of $1.5 million that serves to co-finance cluster development and related activities.

The National Agricultural, Livestock, and Forestry Research Council (CONIAF) was formed in 2000 as part of an innovative national response to the declining support provided for research and technology in this sector. CONIAF is a public-private agency responsible for establishing, stimulating, and promoting technical transfer. It administers the Agricultural and Forestry Research Fund (FONIAF) supported entirely by the GODR. Every two years, NGOs, private sector entities, and universities submit technology generation/adoption projects to compete for FONIAF grant funds. In 2004, 27 research projects were approved, totaling US$365,000 (SEA 2005). In addition, CONIAF initiated the first efforts in the last 20 years to rebuild human capital in this sector by funding professionals pursuing Masters degrees (48 have completed the program, 153 still ongoing), and by developing technical training programs in collaboration with local universities.

The Dominican Institute for Agriculture, Livestock, and Forestry (IDIAF) was founded in 1985 with funding from USAID, and currently receives funding from the GODR, Japan, Taiwan, Spain, and FONTAGRO (IDB). IDIAF works to improve the productivity of traditional food crops with the bulk of its resources focused on rice production. Its strategic focus is to develop sustainable technologies for high value commercial products, identify processing opportunities for primary products, contribute to food security, and develop information and knowledge diffusion systems and technologies (IDIAF 2003). Its budget in 2005 was US$8.4 million, down from US$9.4 million in 2001 (SNIAF 2007).

Center for the Development of Agriculture, Livestock, and Forestry (CEDAF) is a private organization formed in 1997 that evolved from an earlier organization created in 1987 with USAID assistance. CEDAF's mission is to improve agricultural competitiveness through the development of technological networks, education and training, scientific information exchange, and policy and strategic research. While their mandate includes numerous services, the most pertinent with regards to this review is CEDAF's assessment of advanced degree professionals. The Dominican Republic is facing a shortfall of advanced degree professionals as current Ph.D. and M.S. level professionals reach retirement. CEDAF's survey identifies current gaps, future needs, and priority specializations. Based on its survey, the Dominican Republic will need 883 M.S. and 354 Ph.D. trained professionals over the next decade primarily in biotechnology, integrated pest management, international trade, agro-ecology, soils management and conservation, agri-business, plant protection, animal health, and information systems (de los Santos and Hansen 2004).

Civil society. The Dominican Republic has a network of private and academic institutions providing significant support services to agricultural producers and enterprises. There was extensive evidence of collaboration across institutions and with the GODR and donors. An overview of the organizations and activities most relevant to this assessment's objectives follows below.

The Superior Agricultural Institute (ISA) was founded in 1962 under the first USAID funded project in the Dominican Republic. Though initially a vocational school, ISA has grown to become a premier university modeled after the U.S. Land Grant University System. The university provides short courses benefiting thousands of producers and producer organizations, in addition to awarding more than 2,000 B.S. and M.S. diplomas to Dominican and international students since its inception (ISA 2007). The faculty, more than 70 percent of whom hold M.S. or Ph.D. degrees, drives the applied research activities in demand-driven agricultural and livestock disciplines. The campus also offers respected laboratory services for product and chemical analysis. ISA has partnered with a number of U.S. universities including Ohio State, Texas A&M, and Purdue University.

In order to inform the rural sector's productive and sustainable use of land and labor assets, ISA has increasingly focused on the future. The institute's "Strategic Plan 2005 - 2015" focuses on curriculum diversification, program and curriculum strengthening, institutional networking linkages, staff development, and infrastructure. In addition, it has developed a proposal for Rural Diversification and Competitiveness that outlines programs and short courses for producers and agribusinesses specific to CAFTA-DR. ISA devotes particular attention to the thousands of producers who currently employ traditional dry land practices and who now see the value in transitioning to greenhouse and irrigation systems (Ibid.).

Dominican Agriculture and Livestock Board was founded with USAID support in 1984, with subsequent funding from the IDB, EU and the World Bank. JAD has become the largest and most respected producers' association in the Dominican Republic, serving 60,000 producers affiliated with 300 associations and/or federations along 32 product lines. JAD provides various forms of technical assistance, including market intelligence and marketing services such as direct linkages with buyers. Among other technical services, they also provide livestock and plantain production assistance. JAD provides important policy advocacy activities related to CAFTA-DR and complementary legislative and regulatory adjustments to advance sector modernization. The organization also operates an impressive laboratory service covering all aspects of soil, plant, water, forage, processed food products, and HACCP management, and provides laboratory analysis regarding phyto-pathology, entomology, and microbiology.

JAD has designed a program, modeled after PROCAMPO, Mexico's support program in response to NAFTA, to compensate producers for financial losses they incur during the conversion of uncompetitive products (e.g. rice, onions, beans, milk, and meat products) into more competitive ones. JAD proposed a major government sponsored initiative, the Directed Assistance Program to the Agriculture and Livestock Producer (PROAGRO) that would distribute an estimated US$142 million to 118,200 producers during its first

phase. As conceptualized, JAD's project will require US$10 million per year for 10 years to successfully complete the transition process.

The Agricultural and Environment Foundation (FAMA), founded as an NGO in 1994, has worked with numerous small and medium-sized producers on ecological projects, which have been financed by organizations such as UNEP, Agroacción, GTZ, and UNDP. FAMA has focused on marketing organic products and, as a result, they emphasize certification processes and the quality extension and monitoring systems necessary to maintain high quality products.

Following its first internationally recognized organic certification in 1989, the Dominican Republic has become an international leader in this industry. While only 6 percent of the nation's arable land is under organic cultivation (43,496 ha), the Dominican Republic is the country with the third largest land area dedicated to organic production in the LAC region. FAMA prepared a national and international market assessment of organic products that can contribute to current successes. Of the land area under organic production, bananas (69 percent), cacao (26 percent) and coffee (3 percent) are the principle products. As the FAO estimates that international demand for organic products will double or even triple over the next few years (Brechelt 2004), the Dominican Republic is well positioned to expand its market share in current organic exports and establish a presence in new markets. FAMA is itself well positioned to assist producers who want to transition or upgrade their practices.

Donors and international organizations. In the course of this review, specific reference has been made to the work of the Japanese Cooperative International Agency (JICA), GTZ, and Taiwanese and Spanish assistance. This section highlights the donors with the initiatives or series of activities that were most prominent in financial terms or sector tenure.

USAID recently celebrated its 45th anniversary working in the Dominican Republic where it is highly regarded for what it has accomplished in this period. Many directly credit USAID for preparing the Dominican Republic to compete under CAFTA-DR. However, USAID's presence in the agriculture sector has been negligible since deciding to reduce its role in this sector 16 years ago, a decision many local leaders lament. USAID's retraction has contributed to the Dominican farmers' position behind regional competitors who benefited from donor assistance that linked them to buyers in distant markets.

Nonetheless, USAID's Competitiveness and Policy Program (CPP) launched in 2003 provides a significant contribution to agricultural competitiveness by providing assistance in the areas of policy reform, trade capacity building, and cluster strengthening. The policy and trade capacity building components supported ratification of CAFTA-DR and now support its implementation via analytical, technical, and training services. Important policy reform initiatives include competition policy, free trade zones, intellectual property rights, safeguards, and an extremely large listing of highly technical topics and legal requirements critical for CAFTA-DR compliance.

One of USAID's most visible contributions to the Dominican Republic's economic growth is via the third component of its program, which has pioneered the cluster methodology with nine agriculture and tourism sub-sectors. The PROMANGO cluster provides an excellent example of the benefits and potential of the cluster approach. With mango producers, the USAID program focused on: 1) enhancing productivity and post harvest handling, which has doubled yields and reduced production costs; 2) meeting international phytosanitary and food safety standards and adopting sustainable environment practices; 3) business skills training; and 4) marketing and identifying new buyers. As a result of USAID's dedication and leadership, as well as support from the GODR and private sector, $2 million in mangos was exported to Europe in 2005 and the cluster entered the U.S. market with an initial $300,000 order last year. These sales are expected to double in each year in the near-term. This effort has directly increased the number of mango producers and has created new jobs in harvesting, tree pruning, sorting, packaging, processing, and transportation services (Chemonics 2006).

USAID has expanded the impact of its methodology by sharing its expertise, project, and technical staff to implement the CNC's cluster program, which is funded through the IDB. This arrangement between the IDB, CNC, and USAID, forms a highly innovative approach that leverages resources across donor programs and allows for local capacity building.

Given the broad structural reforms needed to tackle the Dominican Republic's uncompetitive institutional infrastructure, the IDB's Support for the Transition to Competitive Agriculture project (PATCA), valued at $61.1 million, is perhaps the most significant donor project. PATCA is a multifaceted consisting of three components: 1) "Adoption of New Technology" is a $31 million mechanism that provides co-financing for goods and services, which small and medium producers can source locally; 2) "Plant and Animal Health and Food Safety Unit" completed in 2006 involved a $7.9 million investment in laboratory equipment and related workforce development and resulted in the creation of a Food Health and Safety Unite within SEA; and 3) "Support for Institutional Reform," which has concentrated on producing assessments relevant to agricultural diversification and the corresponding institutional reforms.

In addition to PATCA, the IDB has a competitiveness project through which it provides funding to the CNC and FONDEC for the development of the National Plan for Systemic Competitiveness and the cluster program described under CNC activities. The IDB is also finalizing primary research for a study measuring the impact of CAFTA-DR on rural households. This study completes a series of similar studies for the Central American countries.

The World Bank's investment portfolio supports economic recuperation, competitiveness, and the environment. One of the principal objectives of their work is to support GoDR programs that consolidate good governance and strengthen public institutions. Nevertheless, since 1994 the World Bank "has had little or no dialogue on

rural development and agricultural policy" though they have suggested they will restart work in this sector (World Bank 2004).

G. STAKEHOLDERS' PERSPECTIVES ON TRADE-LED AGRICULTURAL SECTOR DIVERSIFICATION UNDER CAFTA-DR

An extensive literature review and interviews with stakeholders in Washington, DC and Dominican Republic informed the macroeconomic overview and analysis of domestic and international agricultural sector diversification efforts presented above. Over fifty actors were interviewed for this review, representing government agencies, small and large producers, producer and business organizations, international organizations, NGOs and other civil society groups, and academia (for a detailed list see section J). The stakeholders were selected with guidance from USAID, international financial institutions and other international organizations such as IICA, and on-site recommendations from the stakeholders themselves. Our interviews with stakeholders in Dominican Republic highlighted various perspectives regarding CAFTA-DR and rural diversification, that, taken collectively, point to the need for the range of interventions proposed at the end of this report. Key stakeholder perspectives are summarized below:

- Early outreach efforts by SEIC and USAID focused on the positive impact of CAFTA-DR on consumers and stimulated a positive, supportive citizenry. With ratification complete and implementation set to commence, most producers and agribusinesses interviewed stated that the specific implications for the agricultural sector were not explained. While these producers acknowledged they had been advised they needed to adapt, they do not feel armed with sufficient information on viable opportunities, resulting in uncertainty and fear. Chief among their concerns were the "huge" subsidies their U.S. competitors received that result in "competencia desleal," leading many to lament that the lack of GODR and donor investment in the agriculture sector over the last 16 years would leave them inadequately prepared to compete.

- Some of the most salient observations include: The Dominican Republic's diverse agro-ecology, stable climate, and proximity to the U.S. all provide significant opportunities. The expanding production of vegetable and tropical fruit products in the Dominican Republic highlights this potential.

- Institutions in the Dominican Republic are united in addressing the new national challenges and opportunities that CAFTA-DR presents. ISA is a regionally acclaimed institution that is key to helping form human capital and providing technical outreach services. Other institutions include the leadership from SEA, CNC, JAD, CEDAF, IDIAF, and CONIAF. Specific examples of their efforts include fruit and vegetable research by IDIAF and CONIAF, scholarships for advanced degrees by CEDAF, and public policy advocacy by JAD.

- The cluster approach supported by IDB and USAID, and facilitated by CNC and other institutions, is well respected for its ability to help small to large producers

participate in the global marketplace. This approach allows a broad mix of producers to aggregate their products and influence to overcome economy-of-scale obstacles in areas such as technology and marketing as well as to leverage the necessary assistance. The approach also strengthens relationships between agro-industry processors and producers thereby creating opportunities for broader producer participation in more remunerative product activities.

- The Dominican Republic's role as a leading global supplier of organic products to the United States and the EU provides a dramatic example of how the Dominican Republic can successfully compete in global markets. Moreover, organic products stimulate job and wage growth through demand for increased management attention for production and post harvest plus broad inter-sectoral support services along the value chain.

- GODR support to the rural sector is on the rise. Perhaps the most salient example is the draft reform package, "Modernization of the Public Agriculture Sector," which proposes a comprehensive restructuring of the institutional and legal framework and facilitates public-private interaction.

- President Fernandez has placed considerable personal and political clout behind national competitiveness as a historically important objective that includes the agribusiness cluster specifically.

- Sector competitiveness is seriously constrained by traditional attitudes of dependence on government, antiquated land titling and communal land tenure system, and low rural educational levels. The sector's disadvantage is compounded by high production costs due to energy, labor costs, scarcity, high cost of finance, over-valued exchange rates, and input supply costs.

- The Dominican Republic's traditional support institutions (INESPRE, FEDA, IAD, Agricultural Bank) were created during the earlier protectionist import substitution period. These institutions constrain private sector investment and competitiveness. Meanwhile, most risk mitigation and competitiveness-enhancement services, essential for rural diversification, are woefully inadequate. These most directly include financial and science-based technology generation and outreach services.

- Different types of market-based associative mechanisms are necessary for small and medium-sized producers to compete effectively. These require innovative efforts focused on attaining economies-of-scale and risk reduction while stimulating quality, productivity, and value chain linkages. Under the cluster and value chain mechanisms now being employed, there is hope that some key structural inefficiencies and limitations may be reduced. The Dominican Republic's advanced industry and services sectors provide enormous potential for upgrading from primary agricultural production to value-added processing; however, no GODR or private sector support mechanism to support agro-industrial development has been put into place.

- The policy agenda in the Dominican Republic is beginning to shift from a macro to a micro focused agenda that will highlight a broad range of under-attended and politically and socially sensitive issues. Increasing national competitiveness requires robust and sustainable policies and programs. As such, the National Plan for Systemic Competitiveness and the recent proposed legislation on modernization of the public agricultural sector have generated considerable interest and merit attention.

- Although various plans and studies related to agricultural and rural diversification have been commissioned to inform current and potential trade agreements, there is still no consensus on the way forward for an agricultural transition. Potential strategies include increasing farm and off-farm income sources and implementing safety net programs. A national plan is necessary to stimulate and sustain GODR, private sector, and donor support for the duration of the 10 to 15 years required to facilitate sustainable change as the CAFTA-DR transition period advances.

- While the service sector now makes a greater contribution to the Dominican economy, this sector and the industrial sectors have not required increased labor sufficient to "pull" the Dominicans traditionally employed in the low remunerative rural sector. Therefore, in order to more quickly expand rural-based (on- and off-farm employment), it is imperative that the requisite agricultural support services and programs be more rapidly put in place to facilitate productivity to thereby facilitate the transition of rural Dominicans into the more remunerative agro-industrial sub-sector. The key elements for such programs may be contained in the proposed legislation and other activities previously mentioned. For example, the clusters concept, with its market based private-public sector coordination, has the potential to be a model for delivery of essential production and marketing assistance to producers. Given the long-term nature of the re-conversion process, the SEA-JAD partnership can serve to facilitate the important coordination and collaboration between the public and private sectors.

- Current basic services are insufficient to support the small farm and business enterprise shifts and investments critical for increased broad-based growth. Many of the current support services remain from the earlier era of production-driven strategies. The following types of services were most often named as requiring strengthening or expansion: 1) specialized technical assistance and information covering a broad range of product lines; 2) applied research to improve productivity levels and post-harvest and food processing technologies; 3) food safety and plant and animal health inspection services; 4) market intelligence, cost data, and product promotion services; 5) mechanisms to finance infrastructure investments, particularly controlled environment (i.e. greenhouses and precision agriculture) and irrigation systems; and 6) association support mechanisms responsive to increasingly important economy of scale requirements.

- Producers and private sector representatives expressed that what they most need in the immediate term, is technical guidance as they gear up for CAFTA-DR.

H. SUGGESTED STRATEGIC INTERVENTIONS

The Dominican Republic is at a pivotal moment in its progress towards becoming a respected player in the global marketplace. While the GODR is committed to its recently announced competitiveness agenda, legacies and biases from its protectionist past still need to be addressed. The objective of the interventions suggested by this review is to help to begin to launch medium to long-term activities that stimulate a transition to more remunerative and productive activities in the agriculture sector that are linked with value-added services in the industrial and service sectors. While the Dominican Republic presents other opportunities in the rural sector, including in the tourism and forestry sectors, these areas are outside of the scope of this assessment. The mutually supportive interventions presented here advance the groundwork laid by the GODR, the Dominican private sector (including thousands of producers and rural residents), international donors, and others. In light of the sensitive environment for producers of sensitive commodities like rice, beans, and dairy, inappropriate and delayed interventions can significantly worsen the situation.

CAFTA-DR message outreach. CAFTA-DR is a particularly complex document, especially with regard to market access and tariff reduction schedules. Complex details such as these must be communicated in simplified messages for the general population. A communications program should be implemented to address frustrations and fears by explaining the transition process and providing appropriate examples showcasing the Dominican Republic's successes — particularly in niche and value-added product lines — and highlighting the resulting job growth. Given the sector's current vulnerabilities, such messages and public explanations may change the current negative perception that many rural producers have of CAFTA-DR.

Forming the complementary national agricultural diversification strategy. An agricultural diversification strategy must be devised. To start the dialogue and mobilize participation from the relevant institutional stakeholders, the following topics should be raised for discussion: 1) expected shifts in and out of productive activities in farm, ranch, and dairy enterprises; 2) the potential consequences and quantification of the benefits such shifts might bring; 3) the market opportunities including import substitution, the expanding tourist market, and export markets including the under-addressed opportunities in Haiti; 4) analysis of expected productivity and production costs for sensitive products to reveal what is necessary to stay or be competitive; 5) off-farm jobs that will become available as this process expands; and 6) possible safety net programs.

Review and support cluster model. Clusters have become the principal means to cost-effectively mobilize support services that prepare small and medium-sized producers to transition, thereby allowing broader growth to occur. The resulting reduction in transaction costs for individual farmers and SMEs, and the increased opportunities to access and leverage other types of support, helps ensure the sustainability of cluster programs. USAID and IDB are collaborating with the CNC and other institutions to implement two dynamic and inter-related cluster programs. There are high expectations that this structure will provide competitiveness-enhancement services in ways that do not foster traditional donor project dependencies. Given the upcoming conclusion of both the

USAID and IDB programs, a review of the cluster approach is suggested to identify areas that need to be strengthened.

The review could touch on the following key elements: organizational structure, generation of benefits, buyers' and members' impressions, management tools to assess operational costs and potential revenues, sustainability strategies (i.e. member contributions, check off systems), product marketing, technical and institutional support services, and second story support structures.

The lessons learned could then inform and strengthen any second phase programs. A competitive grants program could also be employed to advance the second-phase. Clusters could compete for grants that would be awarded to those applicants offering the best prospects for providing key services to producers. In certain situations, these competitions could be opened to regional groups, such as the Consejo Agropecuario Unitario de San Juan. A management entity may be needed to operationalize marketing, technical services, and monitoring and evaluation, and to assess income and job growth and ensure that cluster sustainability is achieved.

Creating a competitiveness-based technology generation and outreach system. While the National System for Agriculture and Forestry Research (SNIAF) incorporates some elements of competitiveness-based technology generation and outreach, the challenges confronting the Dominican Republic are such that a broader, market-driven, mechanism is needed. Producers reported the lack of appropriate support mechanisms as the main obstacle for them under CAFTA-DR. A comprehensive review of Dominican Republic and international experience will contribute to the design and development of a more responsive system. Elements of a modernized system are described below.

National science and technology information network. This network would allow members to access resources worldwide via suppliers like CGIAR, USAID sponsored Collaborative Research Support Programs (CRSPs), and regional research centers such as FHIA. Research acquisition would focus inter alia on the following priority areas: 1) fruits and vegetables with particular attention to organic systems and the tropics; 2) green house management; 3) water conservation and management and IPM – areas requiring considerable cost reduction; 4) post harvest and food science technology — the key element for maximizing value-added employment generation; and 5) farm management cost monitoring systems to provide best practice information. By integrating information, experiences, and institutions within the information network, new centers of excellence could be developed within the national system.

National laboratory system. While key lab services are available at JAD, ISA, Ferquido (a private chemical fertilizer firm), and IDIAF, a systemic review based on changing market needs and CAFTA-DR requirements must be undertaken to ensure that services provided are targeted to current needs, particularly in the area of food safety.

Technology transfer. In order to be effective, the technology generation and outreach system must include cost-effective ways to transmit information and technologies to

producers. To accomplish this, some public services must be strengthened while fostering the provision of complementary services in the private sector. Services, such as training of trainers, topic-specific short courses, vocational training, certification programs for NGOs and private service providers, best practice training guides and field days, must be promoted in order to generate broader application of competitiveness-enhancing information and technologies such as dissemination of information via the radio and internet. Fee-for-service approaches should be examined.

Stimulating food security and enterprise diversification. Utilization of high-yielding bean or rice seeds would allow food security needs to be met with less cultivated land. While the trade-offs between public or private provision of this input still need to be analyzed, improved land management can serve as a stimulus to agricultural diversification because more arable land will be available for non-traditional crops.

Rural financial services. Currently, only three percent of the rural sector receives credit from private firms. Advancing rural conversion without access to financial support services is an impossible task. Furthermore, the agriculture sector demands credit products that are specifically tailored to productive cycles. A credit needs assessment should be undertaken to recommend innovative mechanisms that would motivate the financial sector to expand their agriculture portfolios. Possible initiatives could include the creation of a guarantee fund, and designing long-term financing products that allow producers to recover their investments, which is especially important considering the long yield periods for fruit crops. The lending methodology of organizations like FONDESA, a microfinance institution with 15 years of successful experience lending in the rural sector, should be studied for possible replication or expansion. Agricultural insurance should also be reviewed as a potential means to expand lending. The review should present innovative credit delivery mechanisms that reduce producer and agribusiness risks as well as individual transaction costs.

Policy development and analytical and information services. For an increasingly open economy, it is imperative that policies and programs be guided by solid strategic analysis. A critical amount of professional-level expertise will be needed to advance analytical support services and ensure appropriate policy directions. Key service areas include: 1) sector policy analysis capacity that links macro and micro elements to help ensure that appropriate trade offs are considered; 2) high-level market intelligence and comparative production cost analysis focusing on the Dominican Republic's primary traditional and non-traditional product lines, including product shifts and opportunities for innovative value-added interventions; 3) periodic monitoring of selected rural sector households to assess how income and livelihood shifts are occurring during this conversion period (possibly using the ongoing IDB-financed survey as the baseline); 4) an information service addressing FTA impact to specific products and adherence to requirements; and 5) assistance in sector-related technical matters regarding priority regulatory and trade capacity building topics.

Expanding the human capital base. The Dominican Republic faces a shortage of human capital with the knowledge and experience necessary to stimulate

competitiveness. While a strong cadre of national agriculture experts received USAID and other donor support for advanced degrees decades ago, little has been done to expand the human capital base in recent years. The notable exception is CEDAF's program for master's degrees at national universities discussed previously. However, it is extremely important that a cadre of candidates be afforded opportunities to earn MS and PhD level degrees in areas such as plant and animal biotechnology, agro-ecology, food technology sciences, international commerce, and information systems.

Strengthening plant and animal health inspection services. Through funding, technical assistance and training provided by the IDB's PATCA program, SEA now has an operational Plant and Animal Health and Food Safety Unit. To complement SEA's new capability, the public agriculture sectors plant and animal health inspection services must be reviewed and recommendations made for its improvement. Because of the growth potential of the mango sector, this team should also assess the most cost effective way to expand mango exports that comply with fruit fly management regulations and control systems. Given the Dominican Republic's various shipment and production centers, the GODR should explore the possibility of a certified product pre-inspection service.

Promoting environmentally sustainable agro and tourism synergies. Tourism is one of the Dominican Republic's major economic activities. Recently, ecotourism and related sustainability concerns have been gaining support worldwide. While the Dominican Republic possesses numerous protected areas and nesting grounds for exotic birds, restrictions on land use are regularly overlooked by those with limited resources living on adjacent lands, leading to continued deterioration. Paradoxically, the Dominican Republic has become a leader in organic export products to include coffee and cacao that now comprise the bulk of its secondary forests. A carefully developed dual-purpose promotion program emphasizing sustainability would stimulate value-added contributions to both sectors, and create new employment opportunities.

Strategic planning services for sensitive products. Given the tendency of some producers to wait until government assistance is provided or to procrastinate as the transition advances, and also the complexity of deciding on the most appropriate entrepreneurial shifts, the ability to identify affected sub-sectors is crucial to catalyzing the transition. Research financed by the IDB, Study of the Competitiveness Indices of the Agriculture and Food Sectors in the Dominican Republic, used a comparative analysis of each sector's "bottom line" to identify the most affected sectors. Using these findings, a group of highly regarded Dominican and international private sector specialists could work with selected sectors or producer groups to review current strategy and efforts and suggest improvements where appropriate. Manuals could be prepared as needed, and messages prepared by national officials for broader distribution when appropriate.

Facilitating small farmer diversification. In spite of the best of intentions, some producers, especially the smallest, may not find off-farm or related work as the Dominican Republic further opens its economy. The World Food Program, in this agency's new role as a technical assistance provider to the GODR's food assistance

programs, has explored the possibility of a safety net program that will provide basic food support to affected families conditional on school attendance, health indicators, and benchmarks related to the conversion of productive activities. This approach merits consideration as part of an overall strategic plan.

Facilitating role for the CAFTA-DR Trade Capacity Building Committee. The previously mentioned Trade Capacity Building Committee has a mandate to help advance the transformation process faced by the parties to the agreement. This committee is well-positioned to be a facilitator across a broad range of actors including public sector officials (trade, agriculture, finance), the private sector, and other donors. To fulfill this role, the committee may wish to establish a sub-committee to focus on advancing trade-led agricultural diversification by providing a coordinating/facilitating mechanism to help the CAFTA-DR countries and donors in mobilizing support for achieving the broad objective and for sustaining momentum toward doing so. To help sustain this sub-committee, it is recommended that each party designate an appropriate official representative to the sub-committee, who has the authority to coordinate domestically among public sector officials and the private sector.

Donor coordination. A considerable amount of technical and financial support will be required for the success of the agricultural diversification process. Intensified coordination among donor agencies will help sustain focus on the need for increased funding support and to see that resources are invested with maximum impact on accelerating trade-led agricultural diversification. In some cases, there are broad in-country donor coordination processes underway. The Trade Capacity Building Committee, in close coordination with in-country USAID officials, is well-positioned to facilitate such coordination in support of countries diversifying their agricultural sectors. The IDB will soon be expanding its portfolio to include support for rural diversification to the degree that both the GODR and the United States can accelerate fund disbursement and program implementation, as well as influence the design of pending programs with other donors. With these advancements, the process of trade-led agricultural diversification can move forward at a more accelerated pace. The previously mentioned strategic plan can serve as a tool to harness and shape future assistance efforts.

Prioritizing benefits under CAFTA-DR. Given the vital importance of CAFTA-DR in the region, upcoming and/or potential donor support, and the importance of introducing the rural diversification initiatives early, we propose the creation of a regularly conducted bilateral review in connection with the annual meeting of the Commission of the CAFTA-DR Agreement.

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J. LIST OF INTERVIEWEES

Dominican Republic		
Name	**Title**	**Affiliation**
Public Sector		
Amílcar Romero	Senator	National Congress
Andrés Bautista	Senator	National Congress
Adriano Sánchez Roa	Senator	National Congress
Salvador Jiménez	Secretary	State Secretariat for Agriculture (SEA)
Luis Ramón Rodríguez	Deputy Secretary	SEA
Leandro Mercedes	Deputy Secretary	SEA
Magdalena Lizardo Espinal	Director	State Secretariat for Economy, Planning, and Development
Guarocuya Félix	Deputy Secretary Subsecretario	State Secretariat for Economy, Planning, and Development
América Bastida	Deputy Secretary for International Cooperation	State Secretariat for Economy, Planning, and Development
Alberto Durán	International Trade Specialist	Office of External Trade, State Secretariat for Industry and Commerce (DICOEX)
Rene Taveras		DICOEX
Andrés Van der Horst Alvarez	Executive Director	National Competitiveness Council (CNC)
Julián Cruz Herasme	Administrator**,** FONDEC	CNC
Jaime Moreno	Tourism Coordinator	CNC
María de Lourdes Núñez	Advisor, Trade Facilitation and Logistics	CNC
Gabriel Domínguez	Director, Technology Unit	National Agricultural, Livestock, and Forestry Research Council (CONIAF)
José Antonio Nova	Director, Natural Resources Unit	CONIAF
Henry Guerrero	Director, Competitive Agriculture Unit	CONIAF
Ofelia de Castro	Director, Planning	CONIAF
Alejandro Gómez	Director, Monitoring	CONIAF

Dominican Republic		
Name	**Title**	**Affiliation**
Víctor Payano	Director	CONIAF
Rafael Pérez Duverge	Director	Dominican Institute for Agriculture, Livestock, and Forestry (IDIAF)
Ramón Arbona	Coordinator of Operations, Executive Office	IDIAF
Quilvio Cabrera	Director	Dominican Agrarian Institute (IAD)
Raúl Peralta	Planning Management	IAD
Paíno Abréu Collado	General Administrator	Agricultural Bank of the Dominican Republic
Argentina Betances	Coordinator General	IDB PATCA Project
Private Sector		
Osmar Benítez	Executive Vice President	Dominican Agriculture and Livestock Board (JAD)
Dr. Margarita Gil	Land Legislation Specialist	JAD
Dr. Virgilio Mayol	Project Manager	JAD
Bolívar Toribio Veras	Director	National Council for the Regulation and Promotion of Dairy Industry (CONALECHE)
Grl. Juan C. Recio	Executive Director	CONALECHE
Dr. Otto González	Advisor	CONALECHE
Manuel Matos	Producer	San Juan Producers Association
Isidoro de la Rosa	President	National Confederation of Dominican Cacao Producers
Dr. Luis Cuevas	Director of Planning	Agroforestal Macapi, S.A.
Quilvio Jorge	Director	Fondo para el Desarrollo (FONDESA)
Juan Antigua	Representative	FONDESA
Isabel Abreu Núñez	Manager**,** Sales & Marketing	FERQUIDO
Roberto Serrano Oms	General Manager	Peravia Industrial
Luis Zoquier	Agriculture Director	Peravia Industrial
Pablo de Los Santos	Director**,** Manufacturing	Peravia Industrial
Dr. Enriquillo Rivas	Member, Board of Directors	Jarabacoa Poultry and Livestock Corporation

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Name	**Title**	**Affiliation**
José Rafael Villar	President	Exportadora Villar
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Belgica Núñez	Sector Specialist	IDB
Antonio Morales	Representative	United Nations Food and Agriculture Organization (FAO)
Víctor de Angeles	Representative	IICA
Pável Isa Contreras	Director	United Nations World Food Program
NGOs, Academia, Other		
Benito Ferreiras	Dean	Superior Agricultural Institute Instituto Superior de Agricultura (ISA)
Dr. Domingo Carrasco	Assistant Dean	ISA
Angel Castillo	Assistant Dean	ISA
César Cruz	Assistant Dean	ISA
Dr. Rafael Ledesma	Professor	ISA
Luis Crouch	President, Board of Directors	Center for the Development of Agriculture, Livestock, and Forestry (CEDAF)
Juan José Espinal	Executive Director	CEDAF
Teófilo Suriel	Manager, Planning and Studies	CEDAF
Sesar Rodríguez	Executive Director	Dominican Environmental Consortium
Dr. Francisco Cueto Villamán	Director	Latin American Faculty of Social Sciences (FLACSO)
Daniel O'Neil	Director, Our Frontier, Border Project	Pan American Development Foundation (PADF)
Dr. Andrea Brechelt	Executive Director	Fundación Agricultura y Medio Ambiente, Inc. (FAMA)
U.S. Government		
Jamie Rothschild	Agricultural Attaché	USDA
Carlos Suárez	Marketing Specialist	USDA

Dominican Republic		
Name	**Title**	**Affiliation**
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Richard J. Goughnour	Mission Director	USAID
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Dr. Duty Greene	Economic Policy Advisor	USAID
Luis González	Economic Policy Coordinator	USAID
Jeffery Cohen	Program Officer	USAID
Odalís Pérez	Energy and Environmental Officer	USAID
Andrew Herscowitz	Regional Legal Advisor for the Caribbean	USAID
Danilo Cruz DePaula	Chief of Party	USAID/Competitiveness and Policy Program (CPP)
Dr. Rubén Núñez	Trade and Policies Specialist	USAID/CPP
Juan José Aracena	Agricultural Cluster Specialist	USAID/CPP
Rafael Leger Aliés	Director/Producer	Mango Cluster, USAID/CPP
Elso Jáquez	Director	Banana Cluster, USAID/CPP

SECTION 5 EL SALVADOR

ACRONYMS

ANEP	National Private Enterprise Association
ARENA	National Republican Alliance Party
BCR	Central Reserve Bank
CAFTA-DR	United States-Central America-Dominican Republic Free Trade Agreement
CACM	Central American Common Market
CBI	Caribbean Basin Initiative
CENTA	National Center for Forestry and Agricultural Technology
COEXPORT	Exporters Corporation of El Salvador
CONADEI	National Commission to Promote Exports and Investment
CONAMPYE	National Commission of Small and Micro Enterprises
DfID	Department for International Development, United Kingdom
ENADE	National Private Sector Conference
EXPORTA	Export Promotion Agency
FTA	Free Trade Agreement
FOEX	Export Promotion Fund
FUNDE	National Foundation for Development
FUSADES	Salvadoran Foundation for Social and Economic Development
GDP	Gross Domestic Product
IDB	Inter-American Development Bank
IFAD	International Fund for Agricultural Development
IICA	Inter-American Institute for Cooperation on Agriculture
LAC	Latin America and the Caribbean
MAG	Ministry of Agriculture and Livestock
MCC	Millennium Challenge Corporation
MINEC	Ministry of Economy
NAFTA	North American Free Trade Agreement
OPE	Ministry of Agriculture and Livestock Office of Policy and Strategy
PMA	Producers Marketing Association
PNUD	United Nations Development Programme
PRA	Agricultural Conversion Project
RUTA	Regional Unit for Technical Assistance
TCB	Trade Capacity Building
UN-ECLAC	United Nations Economic Commission for Latin America and the Caribbean

SECTION 5 EL SALVADOR

A. INTRODUCTION

Of El Salvador's 5.7 million inhabitants, 41 percent, or 2.3 million, reside in rural areas. The civil war, which lasted from 1980 to 1992, affected substantial portions of the population, mainly in the rural sector. At the same time, the government implemented a series of major land reforms. These events, in conjunction with inadequate support for subsequent macroeconomic reforms, have contributed to an environment that poses formidable challenges to stimulating broad based growth in response to CAFTA-DR and globalization. While there is notable market demand for food products and related agro-industrial exports that could contribute to job and wage growth, El Salvador's ability to respond to this demand will likely be limited. This review provides a multifaceted analysis and a suggested framework to help national leaders and their donor partners respond to the challenges and opportunities CAFTA-DR and globalization provide.

B. MACROECONOMIC OVERVIEW

Beginning in 1989, four consecutive administrations of the National Republican Alliance (*Alianza Republicana Nacional*, ARENA) party have maintained the longest period of consistent economic policy in El Salvador's history. Their support for market-based reforms and trade agreements with Mexico, Panama, Chile, and the Dominican Republic resulted in a dramatic shift from an import substitution structure to an open economy strategy for economic growth. Since 1989 El Salvador has privatized and deregulated key sectors such as telecommunications, electricity, and banking; lowered its external tariffs; restructured its pension system following the Chilean model; introduced key tax reforms; and dollarized its economy.

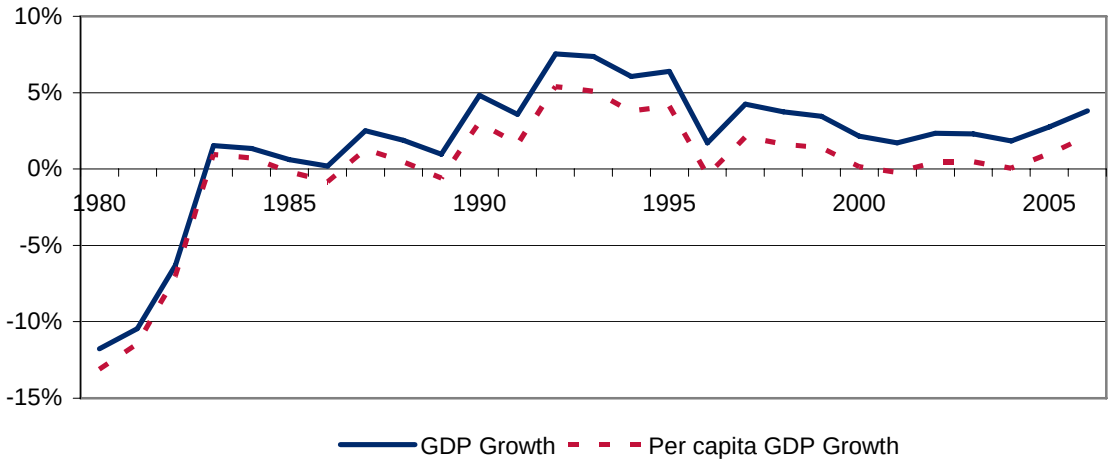
Throughout this period of economic liberalization, El Salvador has continued to experience significant emigration, triggered initially by the political conflict that began in the 1970s but persisting because of limited economic opportunities. Although emigrant remittances have been substantial — surpassing US$3 billion, or 17 percent of GDP, in 2005 — Salvadorans have used only a small percentage of these flows to finance investment. In rural areas, where financial assistance from relatives in the United States can exceed farm earnings, remittances have led some individuals to withdraw from the labor force.

El Salvador's economic paradox is its poor economic performance despite pro-market reforms and remittance flows. Weak GDP growth has generated frustration, crime, and further emigration. Public investment is only about three to four percent of GDP, which limits investments in public goods that could enhance competitiveness. Key internal reforms should address cross-sectoral linkages, productivity levels and operational costs, savings and public investment rates, security, and access to technology (ANEP 2005).

C. KEY ECONOMIC INDICATORS

Gross domestic product trends. Graph 1, which highlights GDP trends since 1980, shows the positive effects of policy and structural reforms launched in 1989. These reforms, however, were insufficient to sustain growth beyond the medium term. Starting in 1997, the decline in coffee prices (only recently reversed), as well as natural disasters, have held GDP growth to an annual average of less than 3 percent.

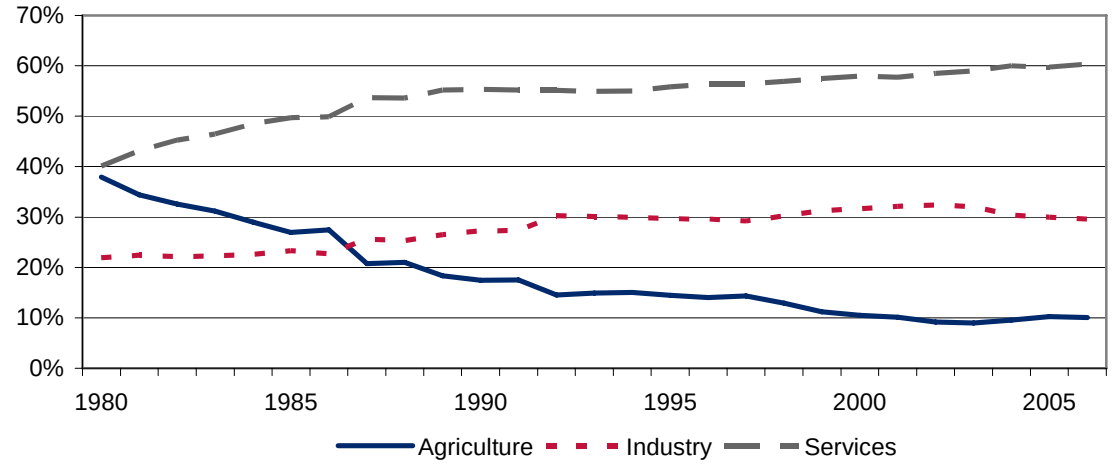
Graph 1: GDP and GDP per Capita Growth, 1980-2006 (Annual % Change)



Source: World Bank 2007

Broad sectoral trends, shown in Graph 2, highlight the decline in agriculture's share of GDP since 1980; as well as the increased relative importance of both industry (though declining in recent years) and services.

Graph 2: Value Added by Broad Economic Sectors, 1980-2006 (% of GDP, Current US$)



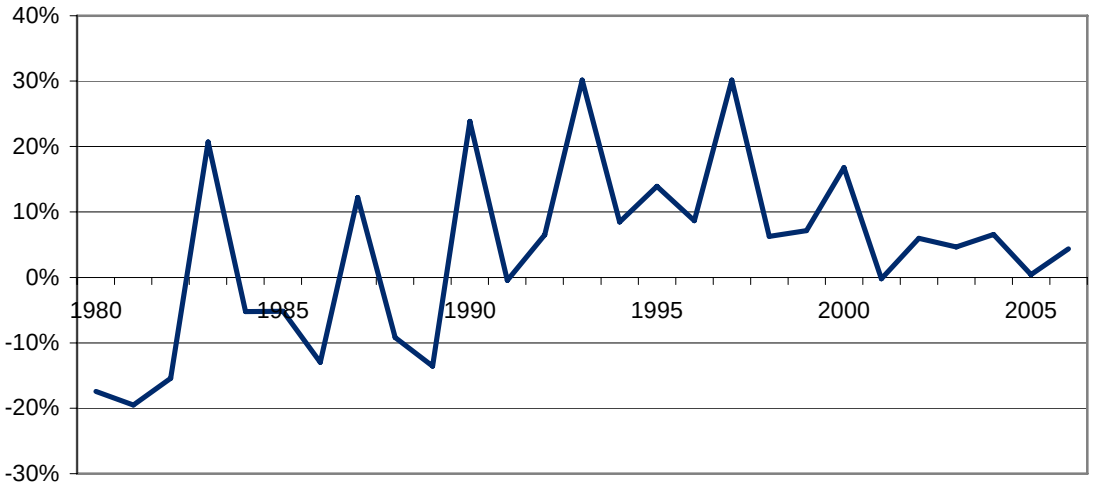
Source: World Bank 2007. Data for 1980-1989 are extrapolated from the real GDP figures.

Until the late 1970s, the agricultural sector generated approximately 20 percent of GDP, 67 percent of hard currency, and 27 percent of tax revenues; and employed 50 percent of the Salvadoran workforce (IICA 2004). During the same period, the country enjoyed a 5 percent GDP growth rate. From the late 1970s to the early 1990s, however, the agricultural landscape changed rapidly due to armed conflict; agrarian reforms that led to monetary, human, and institutional de-capitalization; the sharp collapse of trade within the highly protected Central American Common Market (CACM); and profound macroeconomic adjustments that reduced public sector services, notably in the agricultural sector.

Traditional export-oriented higher-value enterprises (i.e., coffee, sugar, and livestock) and related agribusiness activities and their workforces generally shrank during this time (DFID 2004). By comparison, the lower-value basic grains sub-sector (i.e., maize, beans, sorghum, and rice) became the predominant agricultural sub-sector, generating 20 percent of the sector's GDP (Ibid.). After a few spikes in growth in the early 1990s, the agricultural sector grew at a compound annual rate of only 1.3 percent between 1995 and 2005, the lowest in the region (UN-ECLAC 2007). Although there have been some recent improvements, mainly due to commodity price hikes, this anemic growth was due principally to the limited attention paid to improving land and labor productivity in the context of major macroeconomic reforms introduced, as well as four decades of import substitution, rural conflicts, and land reform (Ibid). From 1998 to 2006, average annual GDP growth was only 2.7 percent (World Bank 2007) and other economic sectors were unable to absorb the growing labor force while, at the same time, the low-growth agricultural sector supports a work force of 474,000 workers and forms the country's second largest employer (Ibid).

Trade expansion and shifts to non-traditional agricultural exports. The Caribbean Basin Initiative (CBI), as well as market-based policy interventions and bilateral trade agreements introduced by the ARENA administrations, have promoted change in El Salvador. Graph 3 shows that export levels have been gradually expanding since the 1980s. Between 1995 and 2005, exports of goods and services more than doubled, from US$1.6 billion to US$3.4 billion, and regularly comprised more than 20 percent of the nation's GDP. Since 2000, however, the export growth rate has slowed.

Graph 3: Exports of Goods and Services, 1980-2006 (Annual Percent Change, Constant 2000 US$)

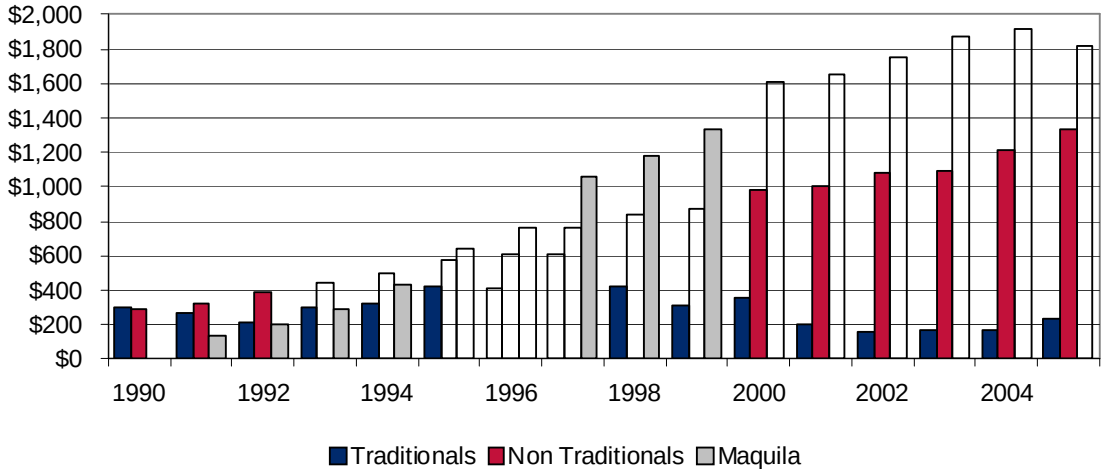


Source: World Bank 2007

The composition of export products has shifted significantly, with price-volatile primary products such as basic grains now much less important than manufactured or processed products whose prices are more stable. Whereas exports in the 1970s consisted predominantly of agricultural products, traditional exports (mainly coffee, sugar, cotton, and shrimp) in 2007 comprised only 8 percent of El Salvador's total export earnings, while textiles and clothing, including *maquila* operations, account for 45.1 percent, and non-traditional exports comprise 46.9 percent (EXPORTA 2007). These shifts are in direct response to changes in the global market and increased competition from other countries. For example, due to China's expansion in textiles, El Salvador's exports of the same declined 2.8 percent in 2004 and 5.2 percent in 2005 (ANEP 2006). While the GDP contribution of primary agriculture products declined, the sector's contribution to industrial exports grew notably. Ten of the 21 industry sector sub-sectors now depend on transforming primary agricultural products (meat, dairy, baked goods, sugar, beverages, tobacco, wood, and other food products). These transforming products combine to form El Salvador's largest export sector (Ibid.).

Graph 4 reflects further the increasing importance of nontraditional agricultural exports and the diminishing importance of traditional exports. While fresh agricultural products such as fruits, cashews, eggs, and sesame seed have shown impressive growth, processed food products as a group have become El Salvador's second largest export category. Between 1989 and 2003, exports of food products jumped from US$28 million to US$239 million (Magaña and Prada 2005). While these products were permitted under CBI, the increased openness resulting from CAFTA-DR fosters the growing demand for food products, including ethnic products — such as tuna, crackers, baked products, *hors d'oeuvres*, beverages, tortillas, *pupusas*, specialty herbs and culinary plants, and cheeses — for the 2.5 million Salvadoran consumers residing in the United States (Taylor et al. 2006).

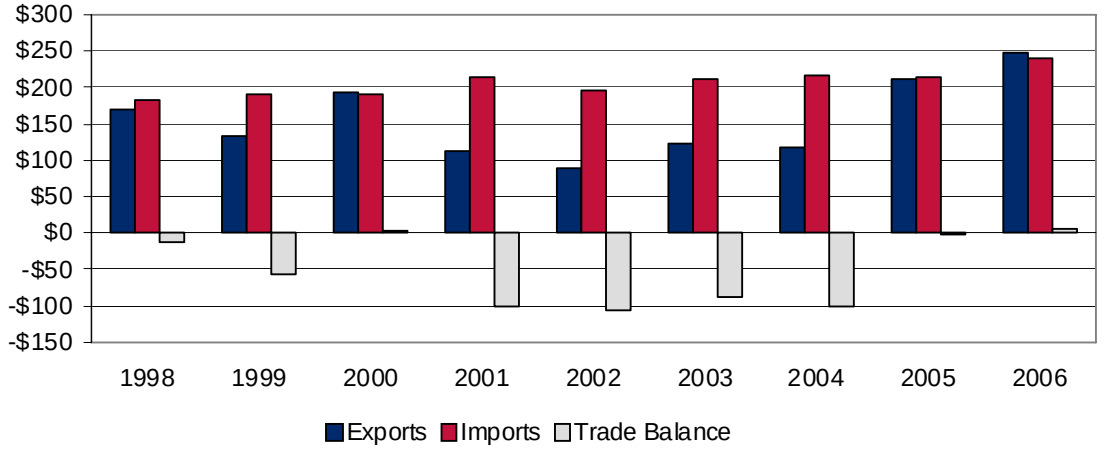
Graph 4: Value of Exports by Broad Category, Selected Years, 1990-2005 (US$ Million)



Source: CARANA Corporation, based on data from the Central Bank of El Salvador

The United States is by far El Salvador's most important trading partner, receiving more than 57 percent of its exports and contributing more than 40 percent of its imports in 2006 (BCR 2006). El Salvador's agricultural imports from the United States have been fairly consistent since 1998, while its exports have fluctuated significantly, and the trade balance has usually favored the United States (see Graph 5 below).

Graph 5: El Salvador's Agricultural Trade Balance with the United States 1998-2006 (US$ million)



Source: CARANA Corporation, based on data from the U.S. International Trade Commission

Poverty. Poverty statistics in El Salvador vary by source; while improvements have been made over time, the national household survey data still exhibit deficiencies. Primary sources for these data show that urban poverty fell significantly from 60.9 percent of the population in 1988 to 38.7 percent in 1997. Rural poverty, data for which are available

only since the 1991-1992 survey, fell more slowly, from 66.1 percent in that initial survey to 61.6 percent in 1997 (Zuvekas 1999). Recent comprehensive reviews for the "Encuentro Nacional de la Empresa Privada para El Salvador 2024" — done by the National Development Commission, Salvadoran Foundation for Economic and Social Development (FUSADES), National Foundation for Development (FUNDE), National Business Association (ANEP), and the United Nations — noted that El Salvador's poverty indicators had actually been underestimated and that even with major migration, remittances, and governmental assistance efforts, socioeconomic inequalities were observed (ANEP 2006).

Table 1: Percentage Distribution of Poor Persons by Urban and Rural Location 1995-2003

Year	Total	Persons below poverty line				Persons below extreme poverty line			
		Capital	Department Capitals	Other Urban	Rural	Capital	Department Capitals	Other Urban	Rural
1995	100	15.9	10.9	20.1	54.0	10.1	8.6	18.8	62.5
1996	100	15.1	10.0	19.8	55.1	8.9	7.9	19.9	63.9
1997	100	13.5	10.8	19.9	55.8	6.9	8.2	20.2	64.8
1998	100	19.0	8.3	19.2	53.6	12.5	7.0	18.4	62.1
1999	100	18.6	8.6	18.5	54.4	11.0	6.4	17.6	65.0
2000	100	18.3	8.6	18.0	55.2	11.0	5.9	46.9	67.1
2001	100	20.2	8.4	18.2	53.2	13.7	5.9	16.4	63.9
2002	100	19.1	8.6	19.0	53.3	14.1	6.8	16.7	62.4
2003	100	21.2	8.0	19.8	51.0	12.3	6.3	20.0	61.4

Source: FUSADES 2004

Poverty in El Salvador is predominantly a rural phenomenon. While 51 percent of El Salvador's population is rural, Table 1 shows that, as recently as 2003, more than half of all poor persons (1.2 million), and more than 60 percent of those living in extreme poverty (737,000) were rural residents. While the percentage of the poor living in rural areas has declined slightly since 2000 due in part to out-migration, remittances and government assistance efforts, very little of this can be attributed to rural sector job growth (FUSADES 2004).[1]

D. RURAL ECONOMY DYNAMICS

While new agricultural sector diversification prospects are demonstrating considerable potential, actual production and enterprise trade shifts have been insufficient to stimulate broad-based economic growth. FUSADES consultant Dani Rodrik concludes that slow

[1] While thus study consulted various respected international and national institutions dealing with rural poverty, it was found that estimates of poverty and extreme poverty in the rural sector of a country can vary depending on source and methodology. To present standardized cross-country comparisons, as described in Volume I, Annex C-Tables C.1 and C.2, UN-ECLAC data were used. As noted in Volume I, 56.8 percent of El Salvador's total population live in the rural sector in poverty (less than US $2 per day), while 26.6 percent of the total population live in the rural sector in extreme poverty (less than US$1 per day).

economic growth is due to the insufficient development of new productive activities around diverse product lines (Rodrik 2004, quoted in Argumedo 2005). Factors that have limited rural sector growth and others that will support the creation of new motors for development, particularly in the context of CAFTA-DR and globalization, are discussed below.

Decline of farm gate prices for principal crops stagnates income levels for the poorest. Between 1991 and 2002, prices for basic grains experienced a 50 percent drop in real terms (Beneke de Sanfeliú and Shi 2004), with significant impact given this sub-sector's position as the largest for agriculture (DFID 2004). Further complicating this reality is that agricultural sector productivity in El Salvador is the lowest among its CAFTA-DR competitors (Ibid). These unfortunate dynamics lead to the result that some 322,245 farm enterprises (averaging 6 members per family), 80 percent of which are dedicated to basic grains, are helping support the well being of 1.9 million persons (FUNDE 2006).

The decline in world commodity prices and reduction in tariffs adversely affected farm incomes and related farm worker wages. During the survey period, the incomes of more than 67 percent of the participating families fell by more than one third (Beneke de Sanfeliú and Shi 2004).

These realities force a multi-dimensional response by most rural residents. The so-called BASIS study, a panel survey of nearly 500 rural households, carried out by FUSADES and The Ohio State University over the period 1995-2001, concluded that the poorer segment almost exclusively produce basic grains and depend on this for income. Of special importance, this study also revealed that in tougher economic times, such as with a reduction in salaried jobs, farm production expands with greater intensity (FUSADES 2004).

Pursuit of alternative economic activities has not significantly affected poverty. The decreasing returns from agricultural production, primarily from basic grains and also the major crash in coffee prices in the late 1990s, affected numerous producers and farm workers, making it necessary for the poorest rural households to rely increasingly on other livelihood alternatives. However, the high risk levels associated with the shifts to more remunerative crops and the paucity of public and private sector assistance have limited farm enterprise diversification.

Table 2 presents the results of the BASIS survey of the sources of rural household income showing the increased significance of off-farm activities and remittances for the rural poor. At the same time their survey data (not reflected in this Table), reveal that only 4.2 percent of the family income is attributable to non-traditional agricultural production activities (Beneke de Sanfeliú and Shi 2004).

Table 2: Sources of Rural Household Income, BASIS Surveys 1995-2001 (% Distribution)

Source	% of Total Income				% of Self-generated Income			
	1995	1997	1999	2001	1995	1997	1999	2001
Agriculture	**44.03**	**35.88**	**28.88**	**26.46**	**48.57**	**39.77**	**33.81**	**32.43**
Family production	17.23	18.81	17.66	16.96	19.01	20.86	20.68	20.79
Salaries	23.55	16.58	10.96	9.25	25.97	18.38	12.83	11.34
Other	3.25	0.49	0.26	0.25	3.59	0.54	0.30	0.30
Off-Farm Activities	**46.63**	**54.34**	**56.54**	**55.13**	**51.43**	**60.23**	**66.19**	**67.57**
Business activities	4.08	14.33	20.74	20.49	4.50	15.88	24.29	25.11
Salaries	40.92	38.52	34.28	32.23	45.13	42.70	40.13	39.50
Other	1.64	1.49	1.51	2.41	1.81	1.65	1.77	2.95
Remittances	**8.26**	**9.00**	**13.48**	**16.22**				
Originating outside El Salvador	6.23	7.12	11.06	13.21				
Originating within El Salvador	2.03	1.88	2.42	3.01				
-Migrants in El Salvador	1.26	1.34	0.98	0.90				
-Non-migrants	0.77	0.54	1.44	2.11				
Subsidies	**1.08**	**0.78**	**1.11**	**2.19**				

Source: Beneke de Sanfeliú and Shi 2004.

Although the constraints impeding such adjustments are numerous, one major factor is the limited access to roads from farms. El Salvador has one of the lowest levels of roads (measured by kilometers per 1,000 inhabitants) in all of the Latin American and the Caribbean region (ANEP 2005).

Incipient rural growth stimulates increased migration, social costs, and environmental damage. While the Government of El Salvador has launched social wellbeing and food security initiatives such as the *Red Solidaria* (a social assistance program focusing on the country's 100 poorest communities), pressing economic realities have stimulated increased rural-urban and northward-bound migration. In fact, as a result of growing economic uncertainties and the resulting social adjustments, a UNDP survey found that between five and seven of every 10 Salvadorans would emigrate if they could (PNUD 2005). As of 2003, 2.2 million Salvadorans resided in the United States and 40,000 were in custody in Mexico and the United States (Taylor et al. 2006). By early 2005, an average of 1,070 Salvadorans per day were leaving the country (PNUD 2005). These trends have led to family separations and an increase in gang participation, violence, and robberies due to declined family supervision (Ibid.). All sources mentioned large, but unquantifiable, numbers of residents from poorer rural areas who cross the U.S. border illegally.

Further, the lack of alternative opportunities has also led to the encroachment and degradation of El Salvador's fragile natural resource base, thus further eroding the country's competitiveness (ANEP 2005). Almost 60 percent of its land is in areas inappropriate for permanent cultivation. Nevertheless, much of this land is cultivated,

thus contributing to soil erosion, contaminated watersheds, and deforestation, which is already high compared to its Central American neighbors (FUSADES 2004).

E. AGRICULTURE SECTOR DIVERSIFICATION OPPORTUNITIES AND SUPPORT UNDER CAFTA-DR

El Salvador continues to embrace sound macroeconomic, institutional, and trade-reform measures. It has invested in critically needed productive infrastructure to reduce transaction costs, such as the new port at La Unión (US$300 million) to be completed in 2008. The country will also benefit from $235 million in Millennium Challenge Corporation (MCC) funds for road infrastructure in the northern region. Ongoing social improvement programs have helped alleviate or reduce poverty to some degree.

Nonetheless, as the above analysis demonstrates, broad-based growth has been elusive, and increasingly entrepreneurial citizens, the country's most valuable asset, continue to find emigration an attractive option. The bulk of the population in areas of concentrated poverty is engaged in increasingly uncompetitive and unsustainable pursuits that will only worsen given the impending tariff reductions under CAFTA-DR. At the same time, however, agricultural diversification in more remunerative farm-level product lines, which would engage increased labor through backward and forward linkages to other economic sectors, is not being pursued (DFID 2004). Notably, non-traditional production has actually slowed as land use has declined. In 1990 there were 71,000 hectares representing 9 percent of the total land under cultivation of non-traditional crop; by 2002, land areas dedicated to non-traditional production had shrunk to 47,000 hectares (Magaña and Prada 2005).

FUSADES's comprehensive cost review of major fresh crops assessed considerable comparative advantages over principal competitors, based on FOB prices. While this analysis concluded that basic grains (except for high technology rice) were not competitive, it also found that high altitude coffee, cacao, avocado, *anona*, lime, *loroco*, tomatoes, and other crops could be highly competitive for the U.S. market (FUSADES 2004). Building from related studies, the ENADE review concludes that not only do fresh products but also processed food products and beverages aimed at the Salvadoran and Central American residents in the U.S. offer unattended market niche opportunities (ANEP 2004).

Research on the upstream and downstream economic impact of various agro-industries provides guidelines for those with the greatest potential. One important study identifies "key" and "strategic" activities for stimulating maximum national economic gains. Using input-output tables for 1978, 1990, and 2002, the research tracks El Salvador's evolution from a production-based, agro-export economy to an incipient industrial-based economy with significant linkages to the services and agricultural sectors. The study shows the importance of inter- and intra-sectoral commercial linkages and proposes national programs to strengthen agro-industry, which can generate significant numbers of jobs while strengthening cost-effective and more efficient ties with the national production base (Arteaga de Morales 2006).

For agro-industrial product transformation to stimulate broad-based growth under CAFTA-DR, producers and investors will need to mobilize investments that reduce risks and enhance competitiveness in such critical areas as market intelligence and promotion systems; improved production, post-harvest and food-processing technologies; productive infrastructure such as irrigation pumps, packing and supply points, farmer to market roads, and financial and market support mechanisms; and particular attention and cooperation to the stimulation of more favorable structures responsive to economy of scale realities.

F. DOMESTIC AND INTERNATIONAL EFFORTS TO FACILITATE AGRICULTURAL DIVERSIFICATION

In the context of the need for agricultural diversification, this section summarizes the evolving vision and responses by the government, civil society and the donor community.

Public sector. The five-year *Pais Seguro: Plan de Gobierno 2004-2009*, prepared by the Saca administration, addresses generally the concept of agricultural and broader rural diversification. The Plan seeks to accelerate economic growth by strengthening current productive activities, introducing new technologies, and emphasizing the higher levels of employment skills levels required within the context of globalization and increased competitiveness. It highlights the importance of increasing agricultural productivity by "strengthening the roots," i.e., improving technology and diversifying production. The Plan also calls for broader off-farm rural economic activities related to micro and small agro-industrial enterprises, tourism, and handicrafts (GOES 2003).

The Ministry of Agriculture and Livestock (MAG) report "Results and Perspectives for the Agricultural Sector within the FTA with the United States" envisions advancing El Salvador's growth via a more synergistic agro-industrial program that CAFTA-DR can facilitate. The report explains the tariff and quota process for each major sub-sector and describes key normative regulations ranging from sanitary and phytosanitary (SPS) measures to rules of origin. It also examines the Ministry's market–based sector diversification program framework (MAG 2004).

The MAG's Office of Policy and Strategy (OPE) has also presented a broader document that describes the special opportunities that CAFTA-DR presents to El Salvador with respect to supplying the growing demand by U.S.-based Salvadorans for non-traditional processed food products. To facilitate the sector re-engineering required to respond to this new opportunity, the report identifies key interrelated deficiencies that require reform. As listed, these include land markets, technology transfer, finance, information systems, product marketing, plant and animal health, infrastructure, environment, and gender concerns. It also addresses preliminary prospects for expanding some promising commodities (MAG-OPE 2005). However, given the necessary improvements required, few specifics are offered with respect to estimated time frames and budget support, and almost nothing is included regarding the emerging sector of importance: agro-industry.

The National Export Strategy developed by El Salvador's export promotion agency (EXPORTA), the export business association (COEXPORT), and the Ministry of

Economy and Commerce (MINEC), articulates a goal for quadrupling exports over the next decade. The US$12 billion target for 2015, a four-fold increase from 2005, was based on IMF and World Bank projections derived from a program to encourage export-led growth as the key driver of national growth. The Strategy provides an overview of export expansion, building on the diversification process now under way. A high-level coordinating steering mechanism, the National Commission to Promote Exports and Investment (CONADEI), is chaired by the Vice President and includes senior ministers and private sector leaders. A Strategic Committee for Exports, comprised of the Ministers of Agriculture and Economy, president of the National Association for Private Enterprise (ANEP), and three private-sector representatives, monitors progress and provides policy and regulatory interventions to help achieve national goals (MINEC 2006). The strategy presents a general description of the national vision, challenges and obstacles, but offers little on the actual plans and steps to achieve the bold objectives.

During the CAFTA-DR negotiations, El Salvador prepared a National Action Plan (NAP) that serves as a framework for mobilizing and managing trade capacity building (TCB) assistance provided by donor and development assistance agencies. The Plan identifies priority capacity building challenges, ranging from labor rights and inspections to training in SPS measures, that El Salvador needs to address to compete more effectively in national and international markets and, thereby, to increase employment and GDP growth (MINEC-DPC 2003). The NAP includes a national strategy for agriculture and rural development. In the context of the TCB mandate and the importance of this topic, however, the plan is incomplete and short on detail.

The GOES has placed considerable attention on developing a broad institutional support base to facilitate exports. Almost 40 government agencies and trade associations are responsible for advancing national trade and providing more than 60 separate services (MINEC 2006).

The Ministry of Economy (MINEC) is responsible for formulating strategies, policies, and initiatives to advance the nation's economy. It also has responsibility for trade policy and negotiations. The following programs have been functioning under the Vice Minister of Trade and Industry:

- Competitive Intelligence Unit: Center for Export Services (Trade Point El Salvador)
- National Innovation Office
- Fund for Export Promotion (FOEX) and the Technical Assistance Fund (FAT) to provide matching grants for micro and small enterprises
- EXPORTA El Salvador, the primary agency for export promotion, technical assistance, and market services
- National Competitive Enhancement System
- National Commission for Micro and Small Enterprises (CONAMYPE), to facilitate economic services for firms with fewer than 90 employees

According to the Regional Unit for Technical Assistance (RUTA) in Costa Rica, El Salvador has one of the region's most dynamic public policy support programs for small and medium-sized enterprises (Villalobos and Deugd 2006).

With the opportunities and challenges provided by CAFTA-DR in mind, this brief institutional overview highlights the limited capacity of government ministries to restructure for trade-led agricultural diversification, due in no small part to significant budgetary constraints. For example, the key unit responsible for technology development and dissemination, the National Center for Agroforestry and Livestock Technology (CENTA), received US$5 million in 2003, down from $16 million in 1993 (FUSADES 2004). The bulk of this declining support has been provided from international donors, who are also reducing their levels of support. While several promising programs have been launched, their specific focus and relevance to critical needs appear to be insufficient.

All technology development activities appear to be funded through international donors, particularly the IDB. The most comprehensive mechanism providing essential rural diversification assistance, the Agricultural Conversion Project (PRA, its initials in Spanish), is financed through an IDB loan. Key PRA support efforts include funding a broad range of activities at CENTA and supporting the General Directorate for Agribusiness of the MAG, which provides technical assistance to more than fifty new enterprises with diverse product lines. These fledgling operations, facilitated by three NGO implementers, help bring small producers to market (MAG-DGA 2006). Also, the PRA supports key plant and animal health labs and services, including the General Directorate for Plant and Animal Safety, and a variety of information, irrigation, rehabilitation, and other key services. Due to administrative requirements, however, the IDB will terminate the project in 2007.

Civil society. Many highly regarded NGOs and trade associations have analyzed the implications of CAFTA-DR and proposed specific strategies and projects to address them. Their published views on the need for El Salvador to diversify its rural economy and support agro-industry are summarized below.

A report by FUSADES, a prominent NGO, think-tank, and project implementer, provides a highly analytical perspective on rural poverty's many dimensions and the agricultural sector's competitiveness. It recommends the following strategic interventions, particularly in the context of CAFTA-DR: 1) diversification of the agricultural sector; 2) investment in new product lines; 3) competitive linking/association-building among agricultural SMEs; 4) effective improvements of the plant and animal health codes; and 5) strengthening of business ties with Salvadorans living in other countries (FUSADES 2004).

A report published by the NGO FUNDE examines the agricultural sector's weaknesses, the decline in government support, and the need to strengthen competitiveness. In addition to addressing special needs, including those of basic grain producers, it looks at prospects for non-farm employment generation in SMEs in tourism, handcrafts,

metalworking, and carpentry. Competitiveness-enhancement needs at the farm-enterprise level would include: 1) innovative new technology systems; 2) finance; 3) access to information; 4) enterprise development; 5) education; and 6) the development of value chains (Magaña and Prada 2005).

During its sixth National Meeting of Private Enterprises in 2006, the premier business association, ANEP, projected the critical programs to improve El Salvador by 2024. Among the key themes presented were the need to prioritize key economic sectors and the need to prepare a better base to facilitate more robust national economic growth. ANEP recommended institutional support for strategic sectors to help take advantage of productive inter-sectoral linkages that generate better jobs. ANEP selected agro-industry and industry as the first-priority sectors, followed by tourism and logistics. The discussion focused almost exclusively on ethnic foods to reach the diaspora community in the United States, but provided little specific action steps to launch the requisite national response in this key, but inappropriately equipped sector. ANEP recognizes that El Salvador must have the requisite modern and competitive productive platform by assigning more resources "to implement and operationalize on a large scale so that we can more effectively impact and dynamize the national economy" (ANEP 2005).

In concluding this element of this important section, it is important to observe that in the context of the regional assessment, it appears that El Salvador is blessed with having some of the most respected and productive development-oriented civil society institutions in the region. This important institutional base, which includes many additional organizations not discussed due to space limitations, is positioned to stimulate important contributions for advancing the strategic interventions proposed in Section H.

Donors and international organizations

A **Millennium Challenge Corporation** (MCC) grant to strengthen rural communities and reduce poverty will provide US$95.07 million for education, water, sanitation, and electricity enhancements; US$87.47 for poor farmers and micro, small, and medium-size enterprises to shift to higher-profit activities; US$235.56 million for design, construction, and rehabilitation of rural roads; and US$44.85 million for project administration, monitoring, and evaluation. The project focuses on the country's northern region, where more than 50 percent of the population lives below the poverty line. It is estimated that 850,000 Salvadorans will benefit from the MCC Compact over the next five years.

The **International Fund for Agricultural Development** (IFAD) has a US$49 million rural development portfolio, the second largest investment of any donor in the sector. The Rural Development and Modernization Project in the eastern region provides approximately US$16 million to strengthen the human and capital resource base, transform subsistence agriculture and non-agricultural activities into market-oriented enterprises, and rehabilitate rural roads. The Reconstruction and Rural Modernization Program provides approximately US$20 million to rebuild infrastructure damaged by earthquakes and to improve local capacity to access market and demand-led technical assistance and investments. The Rural Development for the Central Region (PRODAP-II)

project (US$13 million) targets poverty reduction through services that strengthen local institutions; provide sustainable credit, technical assistance and extension services; and promote gender equity.

The **Inter-American Development Bank** (IDB) has provided US$31.25 million for the PRA project (see above), which accounts for a significant component of the MAG's budget. Its termination will be a setback to improved institutional capacity and support to rural producers. Under this project, FUSADES is exploring the formation of a new foundation, *FondoInova*, similar to *Fundación Chile*. This Chilean foundation was considered critical for helping Chile launch its highly successful, trade-led agricultural diversification program.

The **World Bank**'s assistance, including US$20 million to the *Red Solidaria*, has been important to for improving basic education and health in the 100 poorest municipalities. The only other activity relevant to this review is a pilot project to introduce productive-chain models to help small producers effectively associate and increase exports. It is unlikely that the Bank will approve any new loans prior to the next elections in 2009.

USAID/El Salvador is currently funding the Agricultural Diversification and EXPRO projects, which affect key elements of this review. The first project addresses land use, a major constraint to rural diversification, as only 9 percent of the country's arable land is currently irrigated (FUSADES 2004). The project's focus is to introduce drip irrigation and greenhouse production technologies, complemented by marketing services for fruits and vegetables for domestic and export markets. Gross incomes of US$10,000 per *manzana* (1.7 acres) are projected. CENTA regards this project as the best system for training extension personnel to expand use of modern and essential technology.

The EXPRO Project provides technical assistance in product development, promotion, and marketing to export firms with fewer than 100 employees. It serves a broad range of handicraft, furniture, and other product areas, the largest of which is food products. A survey conducted by FUSADES to assess the performance of national export support services and programs for small and medium exporters reported that EXPRO's services were the most valued among its peers (FUSADES 2005).

G. STAKEHOLDER'S PERSPECTIVES REGARDING TRADE-LED AGRICULTURAL DIVERSIFICATION UNDER CAFTA-DR

In response to the above analysis on the growing national importance of advancing sector diversification and the limited support base in place to advance a more dynamics and competitiveness-based response, a key element of the country review was the gleaning of salient impressions and observations held by diverse leaders and institutions. Their perceptions, in conjunction with the above reviews, form the framework for guiding the suggested strategic interventions presented in Section H. The following is a summary of some of the most often mentioned points in key thematic areas offered by stakeholders.

General attitudes and knowledge regarding CAFTA-DR

The position of everyone consulted was that CAFTA-DR is a reality that needs to be accepted and its challenges met. At the same time, the looming question is, "How does El Salvador best take advantage of CAFTA-DR's opportunities?"

- While important opportunities were increasingly noted for smallholders, concern was expressed that they are poorly equipped to respond effectively to market demand, due to their limited competitive capacities and dispersed locations and related economy of scale requirements.

- CAFTA-DR's immediate and future winners, according to popular perception, will not be the broad consumer base or micro-, small- and medium-sized producers, but rather the larger enterprises and U.S. businesses and producers.

- If appropriate responses are now launched, CAFTA-DR has the potential to stimulate broad-based growth. However at the same time, the agricultural sector is in a very weak condition and must be strengthened.

- CAFTA-DR is not a panacea; rather, it provides an opportunity to address serious internal issues that must be confronted for the nation to advance: eroding societal cohesion, emigration, crime and gang violence, and lack of institutional transparency.

National leadership vision and strategic responses to CAFTA-DR

- Providing the appropriate national strategic framework for the agricultural sector becomes an urgent, high priority need.

- Steps forward must build upon the extensive analysis available, assessing and integrating the best of the limited services thus far launched by private sector, government, and donor efforts.

Promising interventions and marketing opportunities

- Within CAFTA-DR, the most promising rural diversification activities consists of: 1) expanding exports of agro-industrial and related ethnic food products; 2) producing and processing fresh fruits and vegetables for national consumption by competing favorably with Central American producers of common products; 3) supporting nascent tourism development; and 4) expanding handicrafts production.

Technical and operational constraints and related competitiveness limitations

- El Salvador is ill prepared to compete in the global marketplace due to years of structural inadequacies following the import-substitution era.

- Agriculture is a high-risk sector that is poorly understood, with inadequately developed structures to support competitiveness and achieve economic benefits under CAFTA-DR, particularly for small and medium producers.

- High production costs, low levels of competitiveness and productivity, and unfavorable terms of trade require that: 1) production, post-harvest, and food-science technologies be improved; 2) plant and animal sanitary inspection and monitoring systems be strengthened; 3) and business support services, including marketing and financial services, be improved.

- Insufficient quantities of fresh and agro-industrial products are available to meet internal and external demand for these goods. Numerous export opportunities were reported but due to insufficient quantities of the right quality, shipping containers could not be filled.

***Asociatividad* and related economy of scale realities.**

- It is very difficult for individual producers to compete independently on the open market. Cooperation and association-building mechanisms form critically important institutional realities to cost-effectively facilitate small and medium producer participation.

H. STRATEGIC ISSUES TO BE ADDRESSED

El Salvador is now confronting a period of unprecedented opportunities, as well as challenges that will need to be addressed in order to capitalize on these opportunities. To its credit, El Salvador has: (1) undertaken and sustained bold macroeconomic and trade liberalization reforms; (2) made notable advances in developing an agro-industrial food processing sub-sector; and (3) developed a mix of well regarded public and private sector support organizations (e.g. MINEC's support structure, trade associations such as ANEP, research and development organizations such as FUSADES and FUNDE, etc.) that demonstrate El Salvador's capacity to advance some key elements associated with trade-led agricultural diversification.

Perhaps more than any other country reviewed, El Salvador's institutional base — which includes government ministries, private sector trade associations, and intellectual and development foundations — is positioned to fashion the required national response to advance agro-food industrialization and related sector diversification, albeit at less than optimal levels. Unfortunately, key elements essential for conceptualizing and implementing the sustained national response are not being strategically mobilized or sufficiently equipped for El Salvador to keep pace in the competitive arena that is globalization. While the government has made some preliminary efforts to advance CAFTA-DR participation in general terms, El Salvador has yet to clearly articulate and implement a diversification strategy that builds on its initial successes in the agro-industrial food processing sub-sector and generate more remunerative jobs and sustained

economic growth. In order to effectively build an appropriate strategic framework, it is estimated that a 10 to 15 year period of sustained implementation would be required. Thus, this process would transcend national administrations and require long-term national ownership.

To facilitate a national-level discussion in pursuit of such a long-term transformation, an initial list of key issues and areas for consideration by national-level stakeholders is provided below, which can serve as a foundation for developing a national vision for a sustained strategy for trade-led agricultural diversification. To be clear, the focus in the following is to highlight activities that should be addressed by national-level stakeholders, leaving it to those stakeholders to reach their own consensus to articulate not only a long-term strategic vision and action program, but also the specific financial and technical support that would need to be provided by national institutions and key partners in the donor and development assistance community. Three highly complementary themes to advance the national dialogue are woven throughout this discussion: 1) the under-attended agro-industrial sector represents "low hanging fruit" with high impact potential; 2) development of the complex but essential national effort to diversify the rural sector and expand participation; and 3) the various complementary and support activities critical to the advancement of trade-led agricultural diversification within the context of these first two themes.

Develop a national agro-industrial action plan framework. While extensive analysis and interaction with numerous Salvadoran institutional stakeholders points to the development of the country's agro-industrial sector under CAFTA-DR as essential to its future success, existing support structures and related elements that would stimulate investment and broad participation are limited. Given this, a high-profile market-based national plan and facilitating mechanism will be critical to catalyze the required transformation. This mid-term action plan, with heavy private sector participation — from agribusiness firms to individual producers — would be critical to stimulating greater levels of stakeholder confidence and support. While technical assistance inputs may provide broad, trade-based interventions and perspectives that will advance this task, it is important that the impetus for this initiative be national, that it embrace private sector representation, and that it expand beyond the Salvadoran and Central American diaspora to include broader U.S. markets. The Plan's mobilization and content should be structured around a cooperative public/private cooperative structure. Key content and service areas could include: 1) enabling environment and related policy and regulatory systems development; 2) market intelligence/research analysis and appropriate product promotion services; 3) business support services; 4) food processing technology development and outreach; 5) appropriate cost effective vertical integration and *asociatividad* structures such as clusters, farm/contract buyer arrangements, producer associations, etc.; and 6) complementary strategic planning assistance to help focus public good investments and donor assistance.

One essential complementary area to mobilize investment and confidence is in the currently weak area of human capacity building for agro-industrial transformation and broader rural diversification. Special attention will be required in the acquisition and

adaptation of new technologies for production, post harvest handling, and food science and processing. In addition, technical support may be provided by accessing eminent experts and developing a cadre of Salvadorans with advanced (MS and in some cases PhD) degrees in areas such as soil management, trade development, agri-business, farm management, and Integrated Pest Management, among others.

Develop a rural diversification strategic plan. Some key programmatic elements of the government's rural diversification program are under way, as are activities undertaken by various donors, including the complementary Economic and Rural Growth and Poverty Reduction Strategy sponsored by the UK, RUTA, IICA, GTZ and MAG. In addition, FUSADES has prepared a comprehensive analysis of the agriculture and related rural economy. However, these valuable sources have not been brought together in a way that builds upon their complementarities in the context of rural diversification. Persistent rural poverty and social and economic uncertainties associated with CAFTA-DR and its transition period require the crafting of a national vision and complementary strategic plan. This plan needs to highlight: 1) agricultural diversification and related agro-industrial systems that addresses the ability of the beleaguered sector to generate jobs and incomes; 2) the promotion of value-added fruits and vegetables, handicrafts, and tourism; 3) the role of micro and small enterprises; 4) food security through more efficient improved basic grain varieties that free up land for diversification into more remunerative activities; and 5) the articulation of *Red Solidaridad* and other social improvement programs to include rural education, rural roads, etc. As a result of this plan and related outreach messages, national and donor programs would be better positioned to facilitate the rural diversification process away from basic grains and into more remunerative endeavors.

Provide policy analysis and strategic planning assistance to government agencies. Agricultural and rural diversification is not a household theme in El Salvador, and government agencies have not strategically focused on it. MAG's budgetary and staffing constraints have hampered its ability to collaborate with the private sector and confront the myriad of emergency and special interest political and policy issues it faces as the nation responds to the transition period provided under CAFTA-DR. The MAG's Policy and Strategy Office (OPE for its Spanish initials) — responsible for advancing the most appropriate strategies and regulations to enhance land and labor assets and coordinating government, private sector, and donor efforts — has been weakened over time. Accordingly, the highly technical and operational realities of CAFTA-DR have not been fully addressed and related multi-sectoral, agro-industrial strategies, public goods investments, private sector facilitating mechanisms, and guidance messages have been slow to develop. This is due in part to their inherent complexities, limited analytical capacities in key institutions, and political sensitivities. However, an expanded and upgraded senior-level advisory/technical support group within the institutional structure could provide much-needed assistance to the government and the private sector. Appropriate arrangements for staffing, subcontracting, and public outreach are additional operational points to be considered.

Conduct an agricultural census. The last agricultural census was completed in 1972. A new census is urgently needed to provide essential analytical and planning data and measure progress over time. MINEC is now anxious to undertake such an effort. If appropriately conducted, this activity would provide the essential analytical base for policy analysis, conducting much needed applied academic research, and for comparative evaluations and reviews. It would also provide an invaluable tool for MAG's OPE, other GOES units, and research and development institutions to facilitate applied research and governmental and donor coordination and strategic planning.

Mobilize a complementary support arrangement with the MCC. Given the country's fiscal situation and the declining level of traditional donor resources, the MCC provides a timely and major source of funding. Under the five-year Compact, much-needed agro-industrial services will be provided to advance trade-led agricultural diversification in a strategically important region. However, with additional GOES and donor support, this regional program could be cost-effectively linked with key technical assistance, and business development and marketing services. These linkages would help producers in other regions of the country accelerate diversification to more remunerative enterprises, advance association-building and development of supply and value chains, improve training and monitoring services, and facilitate more productive and targeted rural investments from diaspora community organizations. During this critical startup period, this large investment provides an exceptional opportunity for facilitating trade-led agricultural diversification and improved competitiveness.

Mobilize efforts to expand complementary technology development support activities. The IDB-funded PRA is the only functioning major national multi-faceted effort helping the government expand agro-industry under CAFTA-DR. The IDB might reconsider the planned termination of its loan and explore possibilities for other targeted support. Expanded and focused technology development and outreach services also represent an indispensable support element.

Assist El Salvador to take greater ownership of, and give more importance to, its agro-industrial potential. Working together, the Salvadoran and U.S. governments could stimulate greater visibility and more systematic attention and support at the highest levels from the national government and the private sector. Based on fledgling, but important, agro-industrial successes launched during CBI and potentially expanding under CAFTA-DR, a high-level product promotion or trade show could be conducted in El Salvador. This show would ideally target representatives from key private sector companies as well as other interested parties and trade associations, such as the Producers Marketing Association (PMA). Simultaneously, a new agro-industrial program, in the context of the suggested agro-industrial action plan, could be announced as a means to stimulate the improving environment and support base for increased investment to expand rural sector diversification. If appropriately promoted and transmitted from the highest levels, the new message — that El Salvador will gain from CAFTA-DR — will begin to be seriously embraced on a national level.

Facilitating role for the CAFTA-DR Trade Capacity Building Committee. The CAFTA-DR Trade Capacity Building Committee has a mandate to help advance the transformation process faced by the parties to the agreement. This committee is well-positioned to be a facilitator across a broad range of actors including public sector officials (trade, agriculture, finance), the private sector, and other donors. To fulfill this role, the committee may wish to establish a sub-committee to focus on advancing trade-led agricultural diversification by providing a coordinating/facilitating mechanism to help the CAFTA-DR countries and donors mobilize support for achievement of the broad objective and to sustain momentum toward meeting it. To help ensure and sustain this sub-committee, it is recommended that each party designate an appropriate official representative to the sub-committee with the authority to coordinate domestically among public sector officials and the private sector.

Donor coordination. A considerable amount of technical and financial support is needed for the success of the agricultural diversification process. Intensified coordination among donor agencies will help sustain focus on the need for increased funding support and see that that resources are invested for maximum impact on the acceleration of trade-led agricultural diversification. In some cases, there are broad in-country donor coordination processes underway. The Trade Capacity Building Committee, in close coordination with in-country USAID officials, is well-positioned to facilitate such coordination in support of efforts by the countries to diversify their agricultural sectors. To the degree that both the Government of El Salvador and the United States can accelerate fund disbursement and program implementation, as well as influence the design of pending programs with other donors, the sooner the process of trade-led agricultural diversification can be advanced. The previously mentioned strategic plan can serve as a tool to harness and shape future assistance efforts.

Prioritizing benefits under CAFTA-DR. Given the vital importance of CAFTA-DR in the region, upcoming and/or potential donor support, and the importance of introducing rural diversification initiatives early, we propose the creation of a regularly conducted bilateral review in connection with the annual meeting of the Commission of the CAFTA-DR Agreement.

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J. LIST OF INTERVIEWEES

El Salvador		
Name	**Title**	**Affiliation**
Public Sector		
Roberto Simán	Executive Coordinator of Millennium Account Program, Manager of Social Area	Technical Secretariat of the Presidency
Anabella de Palomo	Technical Sub-Secretary	Technical Secretariat of the Presidency
Dr. José Emilio Suadi	Vice Minister	Ministry of Agriculture and Livestock (MAG)
Rigoberto Soto	Director of Agribusiness	MAG
Juan Santos Fuentes		MAG, Office of Policy and Strategy (OPE)
Edgar Cruz Palencia	Director, Office of Policies and Strategies	MAG/OPE
Jorge Pleitez	Coordinator, Strategic Analysis Division	MAG
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Guillermo Pérez	Consultant, Policy and Strategy Office	MAG
Ana Ruth de Serrano	Office of Agribusiness	MAG
Hector Borja	Office of Agribusiness	MAG
René Alberto Salazar	Director of Commercial Treaties Administration	Ministry of Economy (MINEC)
Patricia Salazar	OPE	MINEC
Héctor Miguel Antonio Dada Hirezi	Member of Congress	Legislative Assembly of El Salvador, Economy and Agriculture Committee
Miguel Avila	Investment Advisor	National Commission for Investment (PROESA)
Haydée de Trigueros	Executive Director	National Commission for Micro and Small Enterprise (CONAMYPE)
Alfredo Alfaro	President	Multi-Sector Bank for Investment (BMI)
Samuel Salazar	Sub-Manager of Development	BMI
Felipe Rivas	Representative	Salvadoran Corporation for Tourism (CORSATUR)

El Salvador		
Name	**Title**	**Affiliation**
Abraham López Deleón	Executive Director	National Center for Farming and Forestry Technology (CENTA)
José W. Aguilar	Manager, Technological Research	CENTA
Hada Desireé de Morales	Head of Economic and Financial Research	Central Reserve Bank
Carolina Avalos de Trigueros	Director	Red Solidaria
Ernesto Altschul	Director, Planning	Executive Commission of Autonomous Ports (CEPA)
David Mena	Territorial Coordinator	National Development Commission
Claudia Vélez	Manager, Internationalization Strategies Manager	Export Promotion Agency of El Salvador (EXPORTA)
José Eduardo Zelaya		EXPORTA
Private Sector		
Silvia Cuéllar Sicilia	Executive Director	Corporation for Exporters of El Salvador (COEXPORT)
Raúl Alfaro	Vice President	Association for Small and Medium Enterprises (AMPES)
Saúl Fornos	Auditor	AMPES
Enzo Bettaglio	Executive Director	American Chamber of Commerce (AMCHAM)
Ricardo Esmahan d'Aubuisson	President	Chamber of Farming and Agro-Industry of El Salvador (CAMAGRO)
Waldo Jiménez	Technical Manager	National Association for Private Enterprise (ANEP)
Ruy César Miranda Martínez	President	Cutler, Central America
Multilateral and International Institutions		
Francisco Muñoz	Representative	World Food Program
Keith L. Andrews	Representative	IICA
Jorge Escobar	Director, FRUTALES Program	IICA
Priscila Enríquez	National Competitiveness Specialist	IICA
William Pleitez	General Coordinator, Human Development Report	United Nations Development Program (UNDP))
Guillermo Villacorta	Sector Specialist	Multilateral Investment Fund, IDB

El Salvador		
Name	**Title**	**Affiliation**
Sybille Nueninghoff	Natural Resources Specialist	IDB
Dr. Luis Alberto Espinosa	Technical Director of Animal Health	International Regional Organization for Food Safety (OIRSA)
José Muñoz	Manager, Planning Unit	OIRSA
Ricardo Tejada	Representative	World Bank
NGOs, Academia, Other		
Lilian Vega	Professor, Economics Department	Universidad Centroamericana "José Simeón Cañas" (UCA)
Roberto Góchez	Research Professor, Economics Department	UCA
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Luis Morera	Researcher	ESEN
Rafael Barraza	Provost	ESEN
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Sonia González	Consultant	
U.S. Government Organizations		
Lawrence Rubey	Director, Economic Growth Office	USAID
Rafael Cuellar	Agricultural Development Manager	USAID
Dave Kryzwda	Economic Attaché	U.S. Embassy
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SECTION 6 GUATEMALA

ACRONYMS

AGEXPORT	Guatemalan Association of Exporters
AGEXPRONT	Non Traditional Products Exporters Association
ANACAFE	National Association of Coffee Growers
ASIES	Association for Research and Social Studies
BANDESA	National Bank of Agricultural Development
CAFTA-DR	United States-Central America-Dominican Republic Free Trade Agreement
CBI	Caribbean Basin Initiative
CONGCOOP	Coordination of NGOs and Cooperatives
DIGESA	General Directorate for Agricultural Services
EU	European Union
ICTA	Guatemalan Agriculture Science and Technology Institute
IDB	Inter-American Development Bank
IICA	Inter-American Institute for Cooperation on Agriculture
INDECA	National Institute for Agricultural Marketing
JICA	Japan International Cooperation Agency
LAC	Latin America and the Caribbean
MAGA	Ministry of Agriculture and Livestock
MINECO	Ministry of Economy
MCC	Millennium Challenge Corporation
NGO	Nongovernmental Organization
NTAE	Non-Traditional Agricultural Export
PARPA	Support for Restructuring of Food and Agriculture Production
PRONACOM	National Competitiveness Program
REDCOMAGRI	Red Comercio y Agricultura
SEGEPLAN	General Secretariat for National Planning
SESAN	National Food Security Secretariat
UN-ECLAC	United Nations Economic Commission for Latin America and the Caribbean
UPIE	Policy and Strategy Research Unit
USAID	United States Agency for International Development
USDA	United States Department of Agriculture

SECTION 6 GUATEMALA

A. INTRODUCTION

Guatemala is the wealthiest and most populous of the Central American countries.[1] Roughly 50 percent of its 13 million citizens are from indigenous groups and 60 percent of the population lives in rural areas, the highest percentage among all Latin American and Caribbean countries. Notwithstanding this richness of diversity, Guatemala's rural sector faces many challenges, including its ability to compete and grow under CAFTA-DR.

B. MACROECONMIC OVERVIEW

In 1986, Guatemala began a new era of democratic rule under a new constitution and the introduction of major structural and institutional reforms. After six consecutive years of negative growth, the country began to reactivate its economy. Policies, however, were insufficient to create jobs and reduce poverty. By the end of the 1980s, expansive monetary policies and 60 percent inflation — the highest in its history — forced Guatemala to make structural adjustments. Beginning in the mid-1980s, Guatemala shifted to a floating exchange rate, devalued its currency, and initiated strict discipline over public expenditures. Since then, efforts have focused on maintaining a predictable macroeconomic environment through stable exchange, interest and inflation rates.

Later in the 1990s, the government began privatizing enterprises, including telecommunications, electricity, the state procurer of basic grains and basic foods (National Institute for Agricultural Marketing, INDECA), the extension services provider (General Directorate for Agricultural Services, DIGESA), and the agricultural credit bank (National Bank of Agricultural Development, BANDESA). From 2000 to 2003, the government focused on enhancing national competitiveness, which led to the restructuring of the Ministry of Economy and new efforts to improve the effectiveness of domestic real estate and service markets and to promote broader economic efficiency.

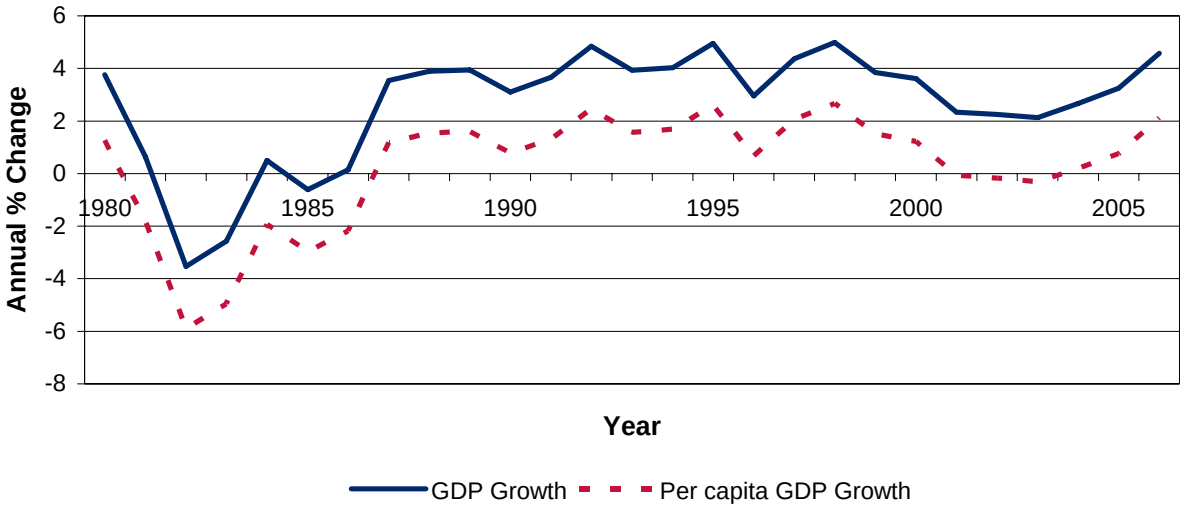
The government of President Berger (2003-2007) expanded policies to promote competition, trade liberalization, and economic expansion. On July 1, 2006, CAFTA-DR entered into force for Guatemala. A free trade agreement is pending with Taiwan and free trade negotiations are underway with Colombia, Canada, Panama, and the European Union. The current Berger administration maintains the highest level of international reserves compared to any previous administration, and its fiscal deficit has averaged about 1.6 percent of GDP from 2004 to 2006. Inflation has averaged 7.8 percent for the same period. Remittances grew 20 percent last year to reach US$3.6 billion — equaling almost two-thirds of Guatemala's total exports.

[1] Guatemala is the wealthiest as measured by GDP.

C. KEY ECONOMIC INDICATORS

Gross domestic product trends. As reflected in Graph 1, Guatemala enjoyed modest and generally stable economic growth through its civil war years. Since 1996, when the Peace Accords were signed, the economy has grown 3.2 percent, though this is below the 6 percent growth target established in the accords as a national goal to promote social well being. Growth peaked at 5 percent in 1998, then steadily declined to a low of 2.1 percent (2003) before gradually increasing to 3.2 percent (2005), an upturn that continued with 4.6 percent growth in 2006 and growth projected at 5.1 percent for 2007. This level of growth has not been observed in 30 years (Moneda 2007).

Graph 1: GDP and GDP per Capita Growth, 1980 — 2006 (Annual Percent)

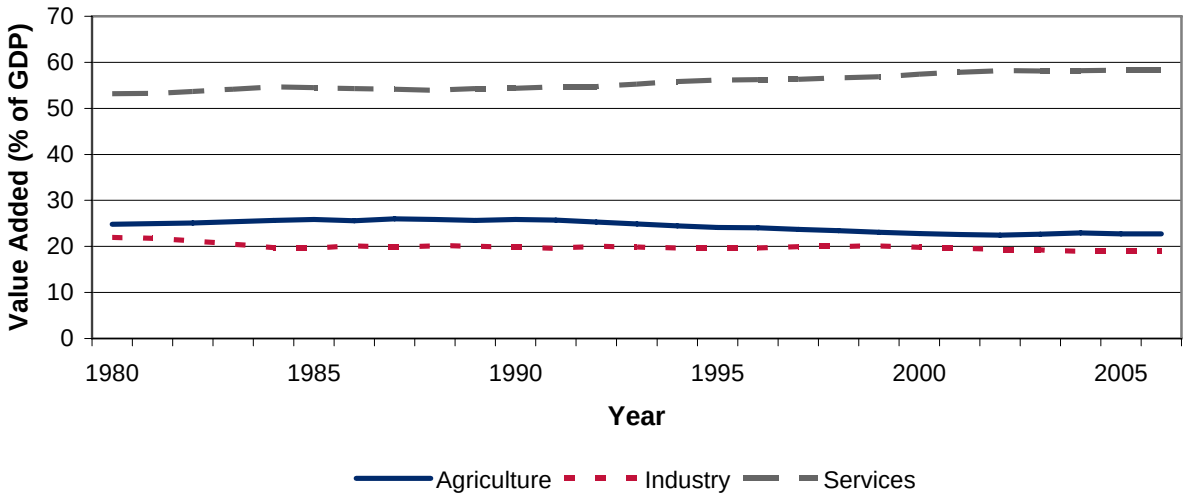


Source: World Bank 2007

Graph 2 presents the agricultural, industrial, and services sectors' value-added growth during the same period. While the services sector has grown in importance, both the agricultural and industrial sectors have experienced slight declines. During the 25-year period, the agriculture sector's contribution to GDP has decreased by approximately two percentage points.

Despite the industrial sector's relatively static performance, there is evidence that one of its subsectors, agro-industry, now forms Guatemala's most dynamic economic sector, demonstrating significant positive growth trends relative to other sub-sectors and the overall economy. From 2000 to 2005, the two largest sub-sector contributors to industry's GDP were food and beverage products, 28.8 percent and 13 percent, respectively. They are followed by diverse manufacturing products (22.9 percent) and textiles (18 percent) (Carrera Cruz 2006). The growth of the agro-industry sector has positive upstream impacts as it links primary production with demand for value-added processed products.

Graph 2: Sector Contribution, Value Added, 1980 — 2006 (% of GDP, Current US$)

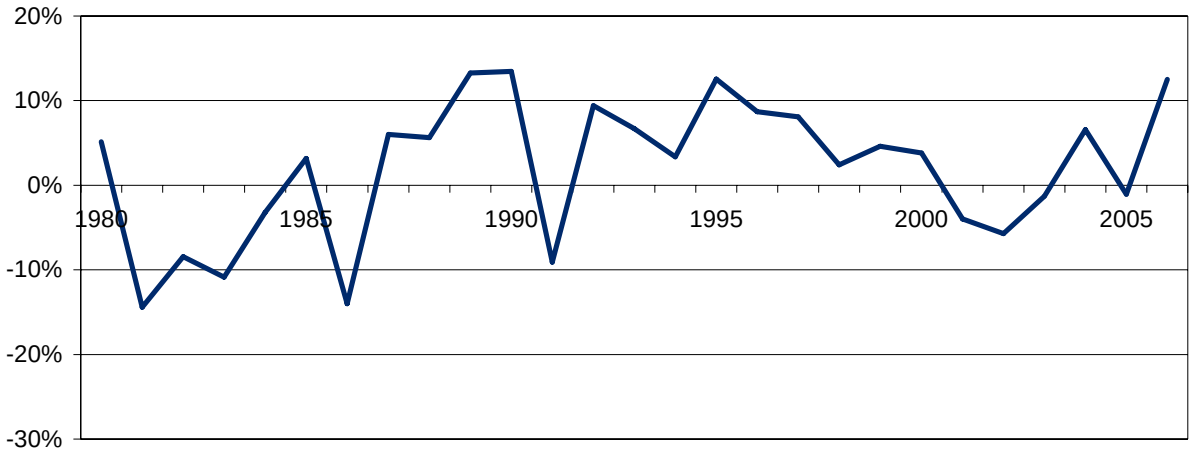


Source: World Bank 2007

A key element for framing this review is the knowledge that Guatemala can productively and efficiently internalize global market forces as shown through the expansion of value added nontraditional agricultural export (NTAEs), which include fruits, vegetables, and related food products.

Trade expansion. Since 1983, Guatemala's participation in the Caribbean Basin Initiative (CBI), which granted it duty free access to the U.S. market for most goods, was crucial for Guatemala to expand exports. Guatemalan exports have adjusted to global commodity supply and related price shifts, particularly in the case of coffee and sugar. At the same time, NTAEs have surpassed traditional exports. While export growth declined gradually between 1995 and 2002, as of 2003, export growth has improved and was as high as 12.5 percent in 2006 (see Graph 3).

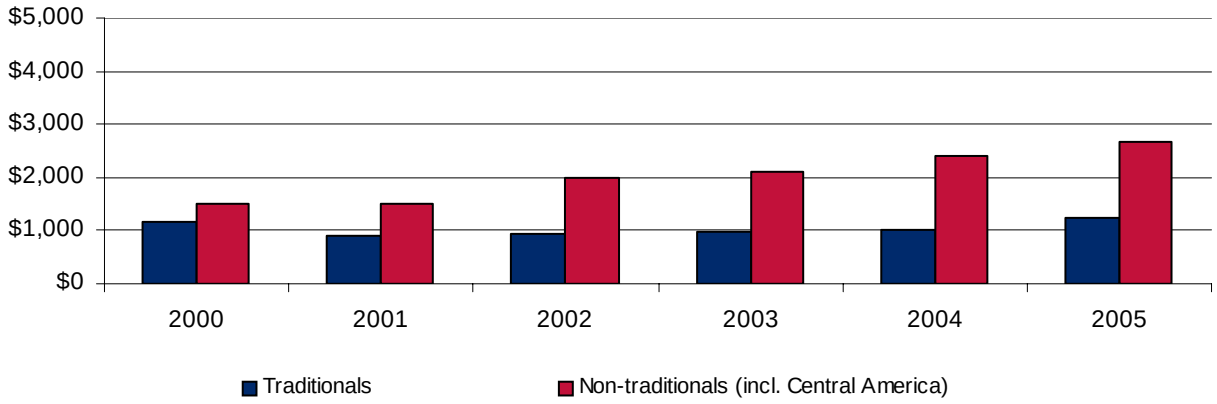
Graph 3: Exports of Goods and Services for Guatemala, 1980 — 2006 (Annual Percent Growth)



Source: World Bank 2007

Graph 4 presents the changing composition between traditional and nontraditional exports during the last six years.[2] Traditional exports are sugar, bananas, coffee, cardamom, and petroleum.

Graph 4: Exports of Goods, by Sector (US$1,000)



Source: CARANA Corporation with Central Bank of Guatemala data

By 2006, the agriculture sector and related industry sectors[3] combined to generate US$2.2 billion, more than one third of Guatemala's US$6 billion total goods exports. In 2006 alone, NTAEs reached approximately US$1.1 billion. Graph 5 below presents the

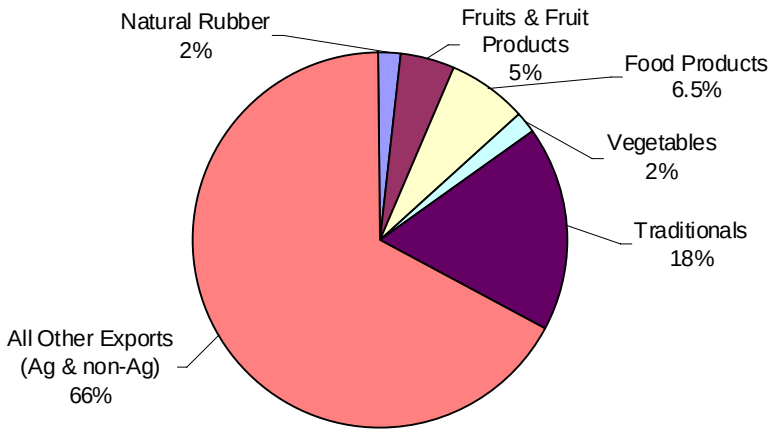
[2] The Central Bank of Guatemala groups exports into three categories: traditionals, nontraditionals, and Central America. The products in the Central America category consist of products other than the five traditional exports reported separately; therefore, for this analysis, we group nontraditionals and Central America into one category. Furthermore, clothing exports — the vast majority of which are from *maquilas* — are excluded from the data to avoid skewing the data.

[3] Coffee, banana, sugar, cardamom, cotton, natural rubber, fruits and vegetables, flowers and ornamental plants, shrimp and fish, food products, etc.

principal nontraditional agricultural products exported during 2006: food products, fruit and fruit products, vegetables, and natural rubber. Alone, these key NTAEs account for 15 percent of Guatemala's exports.

Imports of Guatemalan products into the United States, Guatemala's leading trade partner, also reflect this shift. As shown in Table 1 below, as of 2006, 55 percent of U.S. imports are textiles, apparel, and remnants (*maquila*-related), and 14 percent are fruits, vegetables, and products such as fruit juices and preserved vegetables. Notably, during the seven-year period highlighted in the table, fruits and vegetables have demonstrated stronger average annual growth than textiles (6.9 percent and 2.1 percent, respectively), albeit from a much smaller base.

Graph 5: Key Agricultural Exports as Percent of Total Exports (2006)



Source: CARANA Corporation with Central Bank of Guatemala data

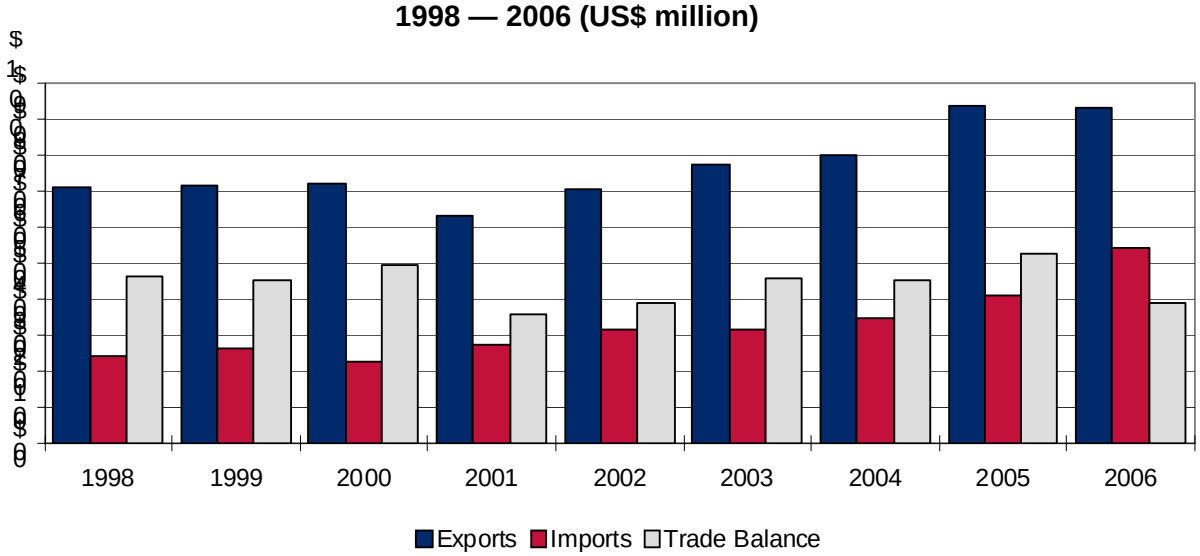
Table 1: U.S. Imports of Guatemalan Products (US$1,000)

Top 5 Imports	2000	2001	2002	2003	2004	2005	2006	% of Total Imports, 2006
1. Textiles, Apparel & Remnants	1,511,541	1,647,509	1,690,157	1,796,216	1,981,028	1,852,478	1,713,284	55%
2. Vegetables & Fruit	296,785	334,025	385,429	393,673	426,015	453,742	442,296	14%
3. Coffee, Tea, Cocoa & Spices	307,080	180,621	172,925	216,701	216,826	287,478	283,428	9%
4. Petroleum & Petroleum Products	154,167	100,909	158,766	179,211	179,665	142,519	197,242	6%
5. Sugar & Sugar Preparations	43,508	39,412	56,893	89,003	76,435	109,159	128,285	4%
Total U.S. Imports from Guatemala	**2,603,452**	**2,589,243**	**2,784,536**	**2,954,085**	**3,156,227**	**3,123,215**	**3,102,698**	**89%**

Source: CARANA Corporation with U.S. International Trade Commission data. Data for December 2006 is estimated.

Central America represents Guatemala's second largest market. Regional exports accounted for 27 percent of total exports in 2006. The increasing presence of international supermarket chains in the region results in increased demand for higher quality. The entry of these international players and their enforcement of standards provide an intermediate platform opportunity for preparing Guatemalan producers to respond to international market demands.

Graph 6: Guatemala Agricultural Trade Balance with the United States 1998 — 2006 (US$ million)



Source: CARANA Corporation with U.S. International Trade Commission data

After the United States and Central America, the EU buys the most Guatemalan goods and services. It is expected that under the EU-CA Free Trade Agreement currently being discussed, there will be opportunities for fruits and vegetables to "consolidate and expand" (GTZ 2006). There are also significant opportunities for organic products. The EU is the largest market for organic products (47 percent), followed by the United States (35 percent), and Japan (14 percent). In addition, annual fair trade product sales expanded throughout the EU between 1999 and 2003, and include coffee, cacao, honey, banana, fruits, vegetables, and fruit juices. Currently the EU is developing standards for fair trade of tropical fruits (Ibid.).

The United States is Guatemala's largest trading partner, providing 39.6 percent of Guatemala's imports and receiving 28.9 percent of its exports (U.S. Department of State 2007). In the agriculture sector, Guatemala has maintained a highly favorable trade balance with the United States, as demonstrated in Graph 6 above.

Poverty. As of 2003, 57 percent of the nation's population lived in poverty, which is most pervasive in the rural areas where more than 72 percent (4.6 million) of the nation's poor reside. Of these, 31 percent lived in extreme poverty (World Bank 2003). While overall poverty was reduced from 62 percent in 1989 to 56 percent in 2000, by 2003 the

poverty rate had barely changed, registering at 57 percent, despite increased trade and economic growth on a national level (Ibid.).[4]

As measured in the 2002 census, Guatemala has 3.5 million workers, of which 1.5 million or 42 percent were in the agricultural sector (MAGA 2004). The sector's overall wage base was 7 percent less than the minimum wage base for non-agricultural salaries, and is the lowest of the salaried sectors. These low wages are insufficient to cover basic food needs (Ibid.). As we describe below, these realities force rural families to pursue many other activities, which still do not notably improve their well being.

D. RURAL SECTOR DYNAMICS

Social inequality. By several measures, Guatemala is one of the most unequal societies in Latin America and the Caribbean. According to the World Bank, Guatemala has one of the region's most inequitable land tenure systems (World Bank 2003). Micro-farms (less than 1 *manzana*/0.7 ha) and sub-family units (less than 10 manzanas/7 ha) comprise 94.1 percent of Guatemala's 1.4 million farm units but only 18.6 percent of land under cultivation. The remaining family farm units listed at more than 45 ha occupy 62.5 percent of the land base (URL and IIA 2004).

Indigenous Mayan cultures comprise almost 50 percent of Guatemala's population, residing predominantly in rural areas. Currently, 72 percent of the indigenous population is poor, compared to 44 percent of the non-indigenous population (Krznaric 2005). For centuries, indigenous groups were politically and economically marginalized, culminating in a civil war that engulfed all aspects of Guatemalan life. This strife terminated in 1996 with the historic accords that introduced on the national scene various inclusive measures, including expanded rural investments and a reoriented national development strategy.

Dependency on basic grains production. Basic grains (maize, beans, rice, wheat, and sorghum) are the principal source of food, nutrients, and employment for the rural sector. Since the mid-1980s, farm gate prices for these commodities have declined. These crops used more than 25 percent (775,880 ha) of the three million ha cultivated in 2000 (URL and IIA 2004). Maize and beans are key crops of subsistence farmers: maize crops are produced on 779,999 farms and bean crops are produced on 306,120 farms. Combined, they are the principal crops for 71 percent of Guatemala's farm enterprises. Despite pervasive cultivation of cereal crops, farm-level yields for basic grains have stayed the same, or actually declined in Guatemala, except for a miniscule.008 percent improvement in rice (Rodas-Martini 2003). In stark contrast, during the last decade, average annual cereal crop yields worldwide have improved 1.5 percent annually (Ibid.). Producers are

[4] While the study consulted respected international and national institutions dealing with rural poverty, it was found that estimates of poverty and extreme poverty in the rural sector of a country can vary depending on source and methodology. To present standardized cross-country comparisons, as described in Volume I, Annex C-Tables C.1 and C.2, UN-ECLAC data were used. As noted in Volume I, 68 percent of Guatemala's rural population lived in poverty (less than US$2 per day), while 37.6 percent of the rural population lived in extreme poverty (less than US$1 per day) in 2002.

increasingly constrained due to smaller farm units, lower prices, and decreases in crop productivity for these grains.

Rural and farm labor distribution. Rural wages are low due to the large number of rural workers engaged in basic grain production and the limited number of better paid farm and off-farm job opportunities. In absolute terms, job growth increased on average at 3.3 percent during the 1990s. Compared to other sectors, the agriculture sector experienced the highest job growth due to the inability of other sectors to absorb the growing rural population (Carrera Cruz 2006). The positive rate of job growth masks the preponderance of basic grain cultivation and its continued absorption of rural labor despite meager returns. These precarious conditions result in depressed wages, greater poverty, job shifts, and increased migration.

According to an IDB rural household accounting model focused on rural and microeconomic indicators in the context of CAFTA-DR (MEGARUM), rural households must pursue diverse endeavors to supplement their meager wage base. Table 2 presents broad categories of productive activities based on farm size, ranging from subsistence to large commercial farms. It shows small subsistence farmers most concentrated in producing basic grains and livestock (usually small species) and least concentrated in producing NTAEs. Also, comparing different types of farm households, small commercial farmers as a group are the most engaged in NTAEs among all categories, capturing nearly 40 percent of household value added (Taylor, et al. 2006). This implies that nontraditional crops present opportunities for small farmers to transition from subsistence to commercially viable farming through productive diversification.

Table 2: Productive Diversification in Rural Land-Owning Households in Guatemala

Productive Activity	Value Added, %			
	Small subsistence farmers	**Small commercial farmers**	**Medium commercial farmers**	**Large commercial farmers**
Basic grains	32.2%	34.2%	21.5%	15.8%
Livestock	43.7%	9.7%	49.3%	47.9%
Traditional crops	14.9%	13.0%	15.6%	26.3%
Nontraditional crops	9.2%	39.8%	13.6%	10.0%
Non-agriculture	0.0%	3.3%	0.0%	0.0%
Total Value Added	**100.0%**	**100.0%**	**100.0%**	**100.0%**

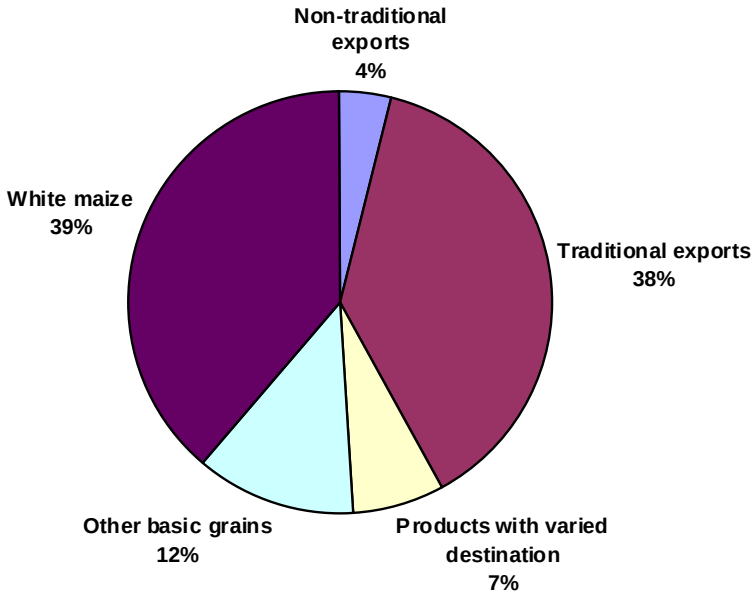
Source: Taylor, et al., 2006.

Graph 7 on the next page presents employment distribution by product and sub-sector grouping, measured in work days. Together, white maize and other basic grains represent 51 percent of employment, which is usually undertaken via *mano de obra familiar* (voluntary family labor). The second most important job category supports traditional exports in coffee, banana, sugar, and cardamom, where contracted labor is compensated

directly. The expanding NTAEs currently comprise four percent of the sector's labor force (Carrera Cruz 2006).

Migration and remittances. As observed in the IDB's comprehensive review, the lack of better paid productive activities in rural areas stimulated migration to urban areas and increasingly northward to Mexico and the United States (Taylor, et al. 2006). As of 2003, 1.2 million Guatemalans (10.5 percent of the population) reside in the exterior; most having left rural areas. In 2003, more Guatemalans were detained at the Mexican (83,572) and U.S. borders (19,352) than from any other Central American country. According to Central Bank of Guatemala data, as reported in Taylor, et al., remittances to Guatemala increased five-fold from US$548 million in 2001 to US$2.681 billion in 2004 (Ibid.). These remittances facilitate greater economic stability and offer some opportunities for local investment.

Graph 7: Employment Creation by Type of Product Cultivated



Source: Carrera Cruz 2006

Agro-ecological diversity. In the context of globalization and competitiveness, Guatemala is endowed with diverse altitudes, rich soil fertility, and microclimates that support multi-plant production. Within 19 ecosystems and 350 microclimates, Guatemala produces 53 plant species (URL and IIA 2004). Food security demands and the absence of economic opportunities not dependent on the land lead to increased land pressure. Guatemala has expanded its agricultural frontier – increasing pressure on fragile and unsuitable forest and sloped areas and increasing soil and water degradation. From 1979 to 2000, land under permanent cultivation expanded almost threefold from 1,171,500 ha to 3,109,500 ha, resulting in major deforestation. Appropriate land use is observed only on 45.7 percent of Guatemala's land base; 24.9 percent is categorized as over utilized. Guatemala loses 54,000 ha or 1.7 percent of its forested areas annually (Ibid.).

Fruit and vegetable production and processing. Following entry into the CBI, Guatemala established its initial productive base in fresh and processed products. By the year 2000, this sector generated 40,900 full-time higher paying jobs in land preparation, production, harvesting, and industrial food processing (Carrera Cruz 2006). The sub-sector generates four percent of all agriculture production-related jobs and shows potential for sizeable expansion.

There are however divergent opinions on the growth of the fruit and vegetable sub-sector and its consequences. One study finds unbalanced power relationships between small producers and large buyers in fruit and vegetable value chains. This disequilibrium, in turn, leads to exploitation: potentially lower prices than determined by the market, with an undue proportion of the risk burden falling on the small producer (Fradejas and Gauster 2006). Other studies find significantly more favorable outcomes from the growth of the sector.

A review of the expanding snow pea business shows a "significant pro-poor impact in Guatemala" where monthly incomes are more than 50 percent higher than traditional agricultural crops (Krznaric 2005). Another study concluded that "small scale growers believe that NTAE production is a viable means of achieving maximum value per land area" (Hamilton and Fischer 2003). At the same time, the latter two studies emphasized the need for facilitating mechanisms to reduce high risks for small and medium-sized producers and to maximize local-level effect, particularly of product marketing services. Lastly, a USAID-funded study on poverty concluded that fruit and vegetable production can be a principal source of rural jobs due to the powerful economic multiplier streams they generate (Barrios and Mellor 2006).

There are multiple market channels for nontraditional exports, each with its internal efficiencies and varying capacities to generate producer-level returns. Small producers and small producer cooperatives export indirectly through large local companies or the locally based subsidiaries of international companies. Often small producers sell their products to intermediaries. Large companies and some cooperatives also export directly. The experience of successful exporting cooperatives shows the types of assistance that small producer groups need to break their dependence on large buyers. At the production phase, small producers need access to credit or financial assistance to purchase primary inputs, while at the marketing stage; they need financial and technical assistance since many have no prior experience dealing directly with the market. At the same time, increasingly due to rising consumer demands for specialized products ranging from fair trade, organic, food safety, etc., direct producer-to-end user market systems are appearing. The reduction of intermediaries and the increased producer-level requirements results in impressive producer-level gains.

E. AGRICULTURAL SECTOR DIVERSIFICATION OPPORTUNITIES AND SUPPORT UNDER CAFTA-DR

Guatemala maintains its commitment to macroeconomic reform and trade liberalization. Diversification has resulted in considerable growth of farm and off-farm activities that include tourism and handicrafts. After six months of CAFTA-DR implementation, NTAEs to the United States have been growing at a rate of 17 percent. Nonetheless, rural poverty remains a particularly daunting challenge, requiring special attention in the context of CAFTA-DR, to not only increase exports, but also to expand and/or deepen markets, generate jobs, and enhance competitiveness.

Guatemala has shown its ability to respond to competitiveness challenges by improving the productivity of and adding value to its two traditional crops — sugar and coffee. In the sugar sector, Guatemala improved productivity and efficiency by improving technologies and re-engineering the sector's vertical integration. As a result, the Guatemalan sugar industry is one of the world's most competitive (Rodas-Martini 2003). The coffee sector underwent similar re-engineering in response to global overproduction and the drastic price drop that resulted, which lowered incomes of Guatemala's 700,000 coffee workers. During a decade of systematic reform facilitated by a US$100 million investment and commitment by the National Association of Coffee Growers (ANACAFE), Guatemala focused on product differentiation and improved production, and post-harvest handling practices, thereby strengthening its position in the quality and specialty coffee markets. As a result, 80 percent of Guatemala's coffee is well positioned in the specialty coffee market, commanding 50 percent higher prices for producers.

Comparative reviews of Guatemala's competitiveness indicate that anywhere from 14 to 27 product lines in the fresh and packaged fruits and agro-industrial food processing sub-sectors show significant potential for export growth and competitiveness (Ibid., IICA 2005, Gonzalez 2006). Organic products are one niche market where Guatemalan producers and processors are showing successes: organic products currently exported to the United States, EU, and Japan include coffee, pepper, cardamom, achiote, sesame seed, honey, blackberry, and sugar (Carrera Cruz 2006). Additionally, CAFTA-DR offsets increased opportunities in U.S. markets beyond those opened by CBI, for example, tobacco and tuna. The EU also expects to offer increased opportunities in processed products as part of initial talks on a free trade agreement between it and Central America; the EU has strongly recommended that Guatemala promote value added processing (GTZ 2006).

As global competitors continuously improve their position, and as other CAFTA-DR members are becoming/will become more aggressive in this same sub-sector, Guatemala is provided a strategic moment that must be seriously considered. By building from its established market share, well respected small and medium-sized producer base, and the realities of the increasingly discriminating U.S. and EU suppliers responsive to ever demanding food safety and product differentiation requirements, Guatemala can strategically position itself for this new era. This "second generation" opportunity can build from an established productive base in ways that stimulate much broader economic gains that will require special efforts. According to one important analysis (Carrera

2001), for Guatemala to acquire access to this changing, more discriminating international consumer base, it requires a more specialized workforce that is better integrated, uses science-based quality control systems and technologies, and is linked with inputs and services to stimulate broader inter-sectoral effects across the economy that stimulate improved jobs and wage growth.

Responding to these increasingly demanding market-based requirements will require the introduction of innovative production, food safety and processing technologies; improved market promotion and intelligence, product storage and packaging, transport and logistic systems; and enhanced product financial and market ties. In the context of CAFTA-DR dynamics, without commensurate strategic interventions, Guatemala may very well lose U.S. market share to lower cost products in Nicaragua and Honduras as these countries too strive to expand production capacity and meet new consumer demands for quality and safety. Accordingly, at this historical moment in an increasingly complex topic, what are the main efforts underway?

F. DOMESTIC AND INTERNATIONAL EFFORTS TO FACILITATE AGRICULTURAL AND RURAL DIVERSIFICATION

Given the mandate and expectations of the peace accords, unchanged rural poverty and social and economic inequalities, globalization's expanding presence and Guatemala's limited competitiveness (particularly in the context of the large number of producers committed to sensitive products), trade-led agricultural sector diversification becomes a quintessential national need. There are multiple governmental, civil society, and donor-supported initiatives underway dealing with some scattered elements of this complex transformation process. However, in relation to the trends and needs presented, Guatemala is not currently positioned or equipped to respond in ways that generate greater broad-based impacts.

From a broader developmental agenda, attention has increased in the areas of social integration and social services. Support programs for key economic sector fronts, however, appear slow to advance, in part due to inherent complexities and political differences. These efforts also appear to lack the national focus that globalization brings and that CAFTA-DR requires, and the considerable enterprise adjustments that must begin to occur under the transition period provided. To grasp the nature of this slowly materializing adjustment process, we review the more notable national and international efforts currently underway.

Public sector. President Berger chose early to prioritize integrated rural development as a means to advance the peace accords. Following a long national consultation process, the administration released its Integrated Rural Development Policy in late 2006. However, during the consultations, no national consensus was reached on the three most divisive and critical topics: (1) agrarian land — access and dispute resolution; (2) the supporting institutional infrastructure; and (3) the source of financing for rural development.

A Rural Development Cabinet, reporting to the Vice President, was formed to implement the Integrated Rural Development Policy. The Cabinet includes representatives from the ministries of economy, agriculture and livestock, communications and infrastructure, energy and mines, environment and natural resources, public finances, and work and social welfare. The General Secretariat for National Planning (SEGEPLAN) serves as the technical secretariat for the Cabinet. Since this Cabinet is newly formed, most of the work to date on agricultural diversification and CAFTA-DR has taken place mainly through the below described activities of the Ministry of Agriculture and Livestock (MAGA) and the Ministry of Economy (MINECO), SEGEPLAN's cross-cutting program, Economic Development from Rural Development Sector, and two complementary efforts in food security and national competitiveness.

The Ministry of Agriculture and Livestock's Agricultural (MAGA) Policy 2004-2007 is the Berger administration's plan to advance the agricultural sector. However, given the restructuring of the public agriculture sector in the 1990s, including privatization and reduction in budgetary support, the government's capacity to help facilitate innovation and productivity limitations and to respond to plant and animal health and safety needs has been significantly de-capitalized.

Important messages are presented in MAGA's main planning document that establishes the basis of "agricultural modernization based on equity and participation following from sector competitiveness, respectful of the process of a globalized economy that requires improved production to gain sustainable access to markets, generate more investments, and create more remunerative jobs" (MAGA, 2004). It describes key opportunities and challenges and includes general priorities: prioritizing strategic public sector investments and mechanisms to facilitate strategic investments; generating and transferring key technologies; training to support value chain formation; and strengthening plant and animal health and food safety. MAGA's policy also reviews themes affecting self-sufficient basic grain producers, sustainable natural resources management, and strengthening public-private partnerships.

Very little, however, is provided on programs to advance on the new opportunities and, for that matter, notable challenges, particularly those to non-competitive producers of the numerous sensitive crops covered under CAFTA-DR. No mention is made of either CAFTA-DR or special national obligations and expectations related to the sector. One possible explanation is that the document's content was crafted to complement the format and scope of the *Plan Agro*, the hemispheric wide strategy being led by the Instituto Interamericano de Cooperación para la Agricultura (IICA).

Public financial resources form an important base toward facilitating rural diversification. Since 1996, the government has increased investments in social services and rural infrastructure at a rate of 14 percent. In productive projects, however, investments have taken place at a lower rate (World Bank 2004). In 2004, MAGA's budget was three percent of the total government budget (MAGA 2004).

As the government faced budgetary constraints, MAGA has decreased its support levels and essential support services throughout rural Guatemala. In the context of the new needs to enhance productivity and new products and service areas required under CAFTA-DR and, for that matter, globalization, many producers lamented declines in production technology development and outreach, sector planning and strategizing, plant and animal health certification, and agro-industrial technologies and investments. A synopsis of the status of three of MAGA's sector support units follows below.

Guatemala's Agricultural Science and Technology Institute (ICTA) forms the only agricultural services institution still operating after the public sector was streamlined in the 1990s. Although it was not eliminated, its budget and personnel were reduced significantly. The subsequent years were filled with institutional uncertainty and malaise. However, beginning in 2006, ICTA began preparations for a full restructuring, which was conceptualized by a major internal review supported by USAID. From this review, the institute's budget was almost doubled to address major productivity challenges confronting producers, including food security requirements. Today, ICTA seeks to reduce arable land for basic grains production and expand into more remunerative products. While ICTA's restructuring process will advance, it appears unlikely that it will become official until the next Congress convenes.

During the 1980s and 1990s, commensurate with the direction followed of the import substitution structures the Policy and Strategic Research Unit (UPIE) served as the key architect of MAGA strategies. Since then, however, UPIE has lost its capacities and influence. The notably different, new era strategic thinking, commensurate with the new economic structure in strategic, policy, programmatic, and institutional reforms, has not moved forward. UPIE has received JICA and USAID funding and is primarily dedicated to merging government's goals with those of *Plan Agro*, an Americas-wide initiative for agricultural development. UPIE also plans to develop a strategy to help maize producers address food security needs under CAFTA-DR.

The Norms and Regulations Unit is responsible for sanitary and phytosanitary measures and inspections. The unit has received USAID support to improve export product pre-certification. It is also working in collaboration with AGEXPORT on a one-stop shop for export procedures and on quality and process certification. Many producers and exporters observed that there is insufficient attention paid to increased demands from foreign consumers and regional supermarkets regarding food security.

The Ministry of Economy (MINECO) is the government's official representative for FTA negotiations, administration, and implementation. During CAFTA-DR negotiations, the ministry prepared the National Action Plan for Trade Capacity Building, which in its original and revised forms, defines responsibilities delegated to the ministries of economy, foreign affairs, and agriculture and livestock, and the support activities they will assume. The ministry provides information services, legal counsel and oversight, issue resolution, and economic development support services. For example, GTZ and USAID-funded information services included basic product and sector guides for promising product lines and economic sub-sectors. However, according to the Vice-

Ministry for International Trade, the actual operational programs to advance commitments resulting from the FTAs actually negotiated become the responsibility of the respective ministries. In the case of agriculture, little was observed in relation to the National Action Plan or particular programs basic to facilitate the special opportunities provided for under CAFTA-DR.

In light of delays in the advancement of the rural development agenda, SEGEPLAN designed the Economic Development from the Rural Sector Program. The two overarching objectives of the program are to improve competitiveness of value chains (that are rural based and/or have strong indigenous participation) and to strengthen the institutional capacity of the implementing agencies to promote rural development and competitiveness. As designed, MINECO will be the implementing unit for the productive component while SEGEPLAN will have overall management and coordination across the implementing entities for each component. However, the program's funding is supposed to come from IDB (US$30 million) and World Bank (US$30 million) loans, both of which will require approval by the Guatemalan Congress. Loan approval is uncertain due to doubts by the opposition that the current administration will refrain from using the funds to finance current electoral campaigns.

The National Food Security Secretariat (SESAN) was created in 2005. SESAN's responsibilities include preempting food crises and coordinating international food aid. In response to CAFTA-DR, the Secretariat has contracted a study on the vulnerability of the Guatemalan rural sector to U.S. agricultural imports. The study will provide an analysis of potential institutional measures and the funding needed to mitigate the impacts of tariff reductions and trade liberalization. Similarly to its coordination of current food security efforts, SESAN would use the analysis to allocate responsibilities to ministries and other implementing agencies. However, given the possible change in government in 2008, the analysis may or may not be used as a guide by the next administration.

Nonetheless, SESAN's unanimous approval in Guatemala's Congress may give the institution the political support it needs to serve as a coordinating body for complementary assistance programs for the subsistence population. Already this organization has experience in analyzing a model that provides technical assistance to small producers to enter export value chains, and in designing a program to replicate the model.

The National Competitiveness Program (PRONACOM) was initially established by the government in 1999 and reactivated in 2004 to address actions and policies that will improve conditions for productive investments, support the joining of products and services deemed potentially competitive, provide follow-up assistance, and support the local decentralized agenda to support human development and productivity (PRONACOM 2005). The first three years of the program's efforts, as defined under the National Competitiveness Agenda 2005-2015, are supported almost entirely by the US$20 million World Bank loan.

PRONACOM formulates Guatemala's national development priorities around three objectives: 1) a tourist destination point; 2) an export platform, with special attention given to agricultural exports followed by industrial products; and 3) a regional logistics center. The program, however, does not provide an analytical rationale or discussion on how to advance these priorities. PRONACOM does present six strategic actions to advance the competitiveness agenda: 1) foster a prepared and healthy society; (2) develop and strengthen institutions; 3) develop productive and technical infrastructure; 4) strengthen productive and export structure; 5) develop the local economy; and 6) promote a balanced and sustainable environment (Ibid.). PRONACOM provides numerous informational, technical, promotional, and training services.

Guatemalan national elections will take place at the end of 2007; the new administration taking office in 2008 will most likely change the rural development agenda. Following the government's national consultation process, the civil society sector, supported by the opposition party, developed a separate agenda. The National Unity for Hope party, leading in the polls at the time that this report was prepared (February 2006), holds rural development as one of its high priorities. One of its main deviations from the vision of the current government's rural strategy is that it is interested in creating an autonomous parastatal agency, outside of MAGA, charged with rural development and support related to CAFTA-DR. As presented, the roles of the ministries and the course of the programs described will be dependent on the agenda of the new administration.

Civil society. While Guatemala has many institutions and civil society initiatives of importance to this review, we have selected three organizations and one initiative that are among the most prominent with respect to CAFTA-DR.

AGEXPORT — a private, non-profit association formerly known as AGEXPRONT — was established in 1982 to represent and promote Guatemalan nontraditional exports. From 1987 to1997, it received significant USAID support. Today, the association provides quality control and marketing services to help strengthen the value chains of their members, most of whom are large firms. The organization is optimistic about CAFTA-DR and views the key challenge for the private sector as the assurance of high-quality exports. Their services include the Exporters' School, market intelligence, technical assistance ranging from packaging to food safely inspection requirements, and representation at international trade fairs. AGEXPORT leads efforts to expand product exports across multiple sectors and promotes complementary investments. Product specific committees have been organized to include avocado, berries, specialty coffee, snow peas, and mangos. Membership dues and fees have made AGEXPORT self-sustaining. The organization has been instrumental in facilitating and expanding the initial producer-buyer links that, because of the responsible production and management practices that were established and maintained, have led to foreign buyers' high confidence in Guatemala's products and Guatemalan product name recognition. AGEXPORT also implements donor-funded projects that provide technical assistance to small producers to integrate them into exporting value chains.

The Coordination of NGOs and Cooperatives (CONGCOOP) is an umbrella organization for 17 NGOs and a federation of cooperatives. It was launched in 1992 to help reintegrate refugees after the end of Guatemala's civil war. Its mission is to "consolidate the space for coordination that promotes equitable development and sustainability that will strengthen peace and democracy through the interaction with public policy and social participation" (Fradejas and Gauster 2006).

CONGCOOP is associated with the larger Trade and Agriculture Network (REDOMAGRI) supported by the Continental Social Alliance, Action Aid, and IRDC. REDOMAGRI has undertaken research and studies on trade agreements, national agricultural policies, and improving local capacity to identify concerns regarding food security and environment issues under trade negotiations (REDOMAGRI 2007).

CONGCOOP has produced numerous studies, including *Perspectives on Rural Family Agriculture in Guatemala in the Context of CAFTA-DR*. This is the only broadly based document driven by considerable analysis that addresses Guatemala's response capacities from a more popular political perspective. It thoughtfully presents core themes including: 1) producer support elements provided under the U.S. Farm Bill; 2) principal beneficiaries from trade liberalization; 3) consequences for basic food producers; and 4) the challenges small and medium producers will face due to high risks as they try to diversify into fruits and vegetables (CONGCOOP 2006).

In 2005, SEGEPLAN contracted the Association for Research and Social Studies (ASIES) to review the key economic sectors under negotiation between the United States and Guatemala so as to better advise Guatemala's CAFTA-DR negotiation team. While internal issues precluded the release of the final report until after the negotiations were completed, the agricultural sector diagnostics continues to be of use to producers and agro-industrial and other stakeholders. Jaime Carrera's analysis of the agricultural sector, "To Maximize the Benefits and Reduce the Distress to the Agriculture Sector," provides a comprehensive, analytical overview of rural poverty, traditional basic grain, export sub-sectors, and evolving nontraditional export sub-sectors. These are placed within the context of opportunities and challenges that Guatemalan agriculture will confront under CAFTA-DR and the urgent need to facilitate major market-based structural change. Carrera concludes:

CAFTA-DR represents an opportunity or a risk, based on how the process is confronted. The disjuncture is related, in a narrow sense, to Guatemala's capacities to address, in the briefest time possible, the structural reforms needed to eliminate internal distortions that increase production costs and affect competitiveness, and to improve effectiveness of governmental systems and the private sector so that national products can compete in the domestic and world markets (Carrera Cruz 2006).

The ASIES exercise suggested several priorities: 1) a specific agenda for the agricultural sector to deal with sensitive crops and to advance more promising products; 2) new public-private partnerships to include value chains with specific attention to technology innovation and food safety; 3) a modernized agriculture/food products system to advance

value added economic multipliers; 4) more systematic and aggressive promotion of product sales in Central America; 5) diversifying production to expand rural incomes by providing more value added to primary products that create better paid job options; 6) social benefits in essential food security, preventive health assistance, and practical skills training to improve labor productivity; 7) special incentives to stimulate greater attention to natural resource and environmental sustainability; and 8) better information on CAFTA-DR and the agricultural sector to apprise key stakeholders (Ibid.).

The *Plan Visión País* recognizes that, to better compete in a globalized economy, Guatemala needs to strengthen its rule of law, basic education, and health services. In late 2005, the initiative of 15 private sector leaders resulted in a 15-year national consensus agenda supported by political leaders from across party lines. The resultant National Vision Plan consisted of four priority topics: security and justice; education, health, rural development; and cross-cutting fiscal and cultural themes. Proposals for the development of each topic were prepared with the goal of having all the political parties approve the proposals they may advance work on. Historically, progress on these increasingly sensitive sectors had been stalled because of the politicized nature of the topics. The proposal for the rural development section captured the numerous complex realities facing the rural sector, but remained sufficiently generalized so as to reduce the political sensitivities and receive universal approval from all the political parties. From this deliberative process, a baseline framework appears to have been established.

On the sensitive issue of agricultural diversification and small farmer economic realities, the plan concluded that the *campesino* segment is of great importance and notably vulnerable. Their economic rationale is family consumption, which does not lend itself to surplus crops and eventual commercial viability. Differentiated and specific attention is required from the rural development program to respond to this class of producers, given that small farmers represent the majority of the rural population. At the same time, it is understood that, due to economy-of-scale realities associated with NTAE production and export, eventually small farmers must be integrated into other economic entities such as SMEs, businesses, and cooperatives, as well as linked with local, national, and international demands. These linkages, and rural producers' participation in these markets, are considered a key strategic element for integrated and sustained development. (Government of Guatemala 2006)

Subsequently, a series of rural development laws were drafted to guarantee the implementation of the proposed vision, to include its objectives, strategies, and institutional adjustments. The draft laws fail to reference CAFTA-DR and face opposition as these draft laws compete to some degree with the strategies developed by political parties.

Donors and international organizations. The international community has provided significant assistance to Guatemala's rural sector and introduced many initiatives over the years. We summarize below the most important contributors' portfolios and initiatives.

The primary foci of USAID's program are to promote good governance, economic growth, health, and education. Cross-cutting the programmatic initiatives are the dual goals of supporting CAFTA-DR implementation and improving Guatemala's performance on the Millennium Challenge Corporation (MCC) indicators. USAID has provided support to a broad range of public and private sector efforts that allow Guatemala, and specifically rural producers, to benefit from CAFTA-DR. USAID's past support for the government includes assistance to PRONACOM for the development of a competitiveness agenda and to the Rural Development Cabinet for the development of the Integrated Rural Development Policy. Throughout 2004-2009, USAID will continue working with local partners to strengthen policies, laws, and regulations that promote free trade (i.e., create or reform laws, regulations, and policies to implement CAFTA-DR).

USAID's support to the productive sector focuses on the agriculture and agri-business, forestry, and tourism clusters. Through its programs, USAID offers technical assistance to small producers and SMEs to increase their integration into exporting value chains and high-value markets. Technical assistance includes organizational development and cluster strengthening, product quality control measures, sanitary-phytosanitary training, market linkages, and agricultural and management best practices.

Partners such as AGEXPORT and Fundación Agil provide the business development services and themselves receive institutional capacity building assistance. USAID also promotes increased access to rural financial services; in the past, USAID provided the seed capital (by converting a $13 million trust fund) for GuateInvest, a MAGA loan guarantee program for small producers.

USAID/Guatemala is providing support for the "More Competitive, Market-Oriented Private Enterprises" Project, and is now working to implement new assistance in the rural development area.

The World Bank's investment portfolio is US$564 million and includes the ongoing Competitiveness Project, PRONACOM, described above (US$20 million). Two projects are pending congressional approval: (1) the Second Broad-Based Growth Development Project (US$100 million) would focus on improving the business and investment climate, expanding social investment, and improving the fiduciary environment; and (2) the Rural Economic Development Program (US$30 million) would focus on improving the competitiveness of rural productive supply chains and strengthening the institutional capacity of public entities to adopt a territorial model. The latter will co-fund, with the Inter-American Development Bank (IDB), the Economic Development from the Rural Sector Program, designed by SEGEPLAN.

The IDB's current portfolio will not likely be modified until the new administration is sworn in next year. Within agriculture, the rural sector, and natural resource management activities, two of the three large-scale loans support natural resource management projects that include components for productive activities in tourism and agriculture. Through smaller programs, the IDB provides grants, training, and technical assistance to small producer groups and tourism enterprises. The third large loan is for the US$33 million Support for Restructuring of Food and Agriculture Production (PARPA), which

provides technical support to MAGA in institutional restructuring, plant and animal health services, food safety, and water resource management. The program also provides assistance to the Ministry of Economy on export support services and management of quotas. PARPA is the only large multilateral institutional support program supporting the public agriculture sector. Pending congressional approval is a US$30 million loan for the implementation of SEGEPLAN's Economic Development from the Rural Sector Program described above.

G. STAKEHOLDERS' PERSPECTIVES ON AGRICULTURAL DIVERSIFICATION

An extensive literature review and interviews with stakeholders in Washington, D.C. and Guatemala informed the macroeconomic overview and analysis of domestic and international rural diversification efforts presented above. Over 40 actors were interviewed for this review, representing government agencies, small and large producers, producer and business organizations, international organizations, NGOs, civil society groups, and academia (for a detailed list see Annex J). The stakeholders were selected with guidance from USAID, international financial institutions, and other international organizations, such as IICA, and on-site recommendations from the stakeholders themselves. Our interviews with stakeholders in Guatemala highlighted various perspectives regarding CAFTA-DR and agricultural and rural diversification, that, taken collectively, point to the need for a national framework around key interventions proposed at the end of this report. Key stakeholder perspectives are summarized below:

- There was near consensus on the very low level of information and knowledge regarding CAFTA-DR, particularly as it relates to its effects on the rural sector. This information gap — combined with very low producer-level risk tolerance and the erosion of essential public and private sector support capacities — contributes to heightened fear.

- Urban-based professionals saw CAFTA-DR as a catalyst for needed structural and institutional reforms for Guatemala's development. Many acknowledged the need for special and sustained attention to reform the rural sector. At the same time, CAFTA-DR was viewed as a critical mechanism to ensure investors of a better business enabling environment.

- Interviewees saw the coffee re-conversion experience and Guatemala's increasing exports of fruits and vegetables as indicators of the potential for income and job growth derived from agricultural diversification. In addition to the positive experience with export diversification and value added agricultural production, fruits and vegetables represent a sub-sector with notable unmet demand. Exporters reported an under-supply of quality products. According to private sector representatives, the problem is not one of what to produce, but rather of how to organize to produce the quantity and quality that the market wants to buy.

- An absence of investments and of a planned alternative diversification support mechanism in the rural sector has prompted uncertainty and fear. Many commented on the large number of small and medium producers who view diversification with considerable apprehension due in part to their very low risk threshold.

- Distrust in traditional and increasingly numerous market intermediaries translates into a growing perception that they will absorb, rather than share with producers, any gains from improved market access.

- There is a strong perception that USDA support programs and agricultural subsidies to U.S. farmers will result in an "avalanche" of food, feed, and livestock products, overwhelming Guatemalan markets.

- Stakeholders could not identify significant national efforts to expand agro-industrial capabilities to maximize Guatemala's potential in downstream, value added activities.

- ICTA and MAGA in general possess limited technical capacity, which pose limitations in areas of certification, food safety, and inspection, in spite of any advances made by the private sector.

- Prevailing economic policies have emphasized macro policy and trade liberalization. To advance broad-based economic growth, particularly in the rural sector, many saw the urgent need for complementary "second generation" initiatives that focus on competitiveness enhancement and enterprise and producer-level support services to take better advantage of new trade-based opportunities.

- Respondents repeatedly worried about the absence of any realistic national strategic vision and program regarding the agricultural sector for CAFTA-DR. Whether through the National Vision Plan, the Integrated Rural Development Policy, or another framework, stakeholders hoped for a new era strategy and structure that because of the need for consistent re-engineering, would require a long-term national commitment transcending administrations.

- There was consensus that the public sector, private sector, and donors are not coordinated to respond to the highest, market-based priorities so that growth potential is maximized. Although the government recently developed rural development support initiatives, there appears to be less attention in the broad areas of enhancing rural growth, and little of this is focused on CAFTA-DR realities associated with agriculture. The need to induce rural competitiveness, craft more supportive roles for MAGA and the private sector, and facilitate rural vertical integration to expand fledgling agro-industrial initiatives is limited by a lack of attention and coordination.

- Guatemala has experienced a major decline in essential agricultural support services. This is due in part to the contraction of the public sector resulting from structural adjustment and the inability of the private sector and NGOs to adequately fill this role. The traditional public good areas identified as needing urgent attention by

MAGA or the appropriate public-private structure include: sector planning and strategizing, technology development, outreach, plant and animal health inspection and certification, and the promotion of agro-industrial technologies and investments. As any of these areas are strengthened, there will be a subsequent need to provide training for MAGA personnel.

- While AGEXPORT and some NGOs have advanced in some of the key service delivery areas, the current structure is insufficient to maximize Guatemala's potential in fruits and vegetables, nontraditional exports, and expansion of the nascent agro-industrial sector. Stakeholders emphasized the lack of technical assistance and management support mechanisms basic to supporting farmers in diversifying production.

H. SUGGESTED STRATEGIC INTERVENTIONS

Our literature review, supplemented by extensive country-level interviews, revealed that insufficient national attention is directed at the challenge of how best to strategically advance agricultural diversification and increase the competitiveness of rural sector so that anticipated gains under CAFTA-DR actually materialize. A concerted national effort must be mounted to improve the enabling environment for rural diversification by: 1) increasing and better targeting rural-focused public investments; 2) improving support mechanisms for disseminating information to producers on production, post-harvest handling, and marketing technologies; and 3) improving the quality and reducing the cost of marketing and other support services such that dynamic trade-led economic multipliers are facilitated. These form the new era support elements to stimulate and expand trade and investment that due to the new streams of jobs and wages generated, form the dual engines for economic growth and poverty reduction.

A similar conclusion was reached by the IDB in 2006 report: "[Guatemala] needs to rely upon a competitive-based rural economy in order to take advantage of new opportunities provided with the creation of new forms and structure that link products of rural origin with the world markets."

The assessment team proposes these essential interventions to assist the government, private sector, and donor community in establishing and nurturing the initial foundation for advancing competitive and sustainable rural diversification. The suggested interventions relate directly to agricultural and agriculture-related diversification. While our research and interviews indicated the rural potential in other sectors, particularly tourism and handcrafts, these areas are outside the scope of this assessment.

CAFTA-DR information outreach services. The most outspoken information source regarding CAFTA-DR and the rural sector pushes aggressively for CAFTA-DR's renegotiation. Conversely, all professed that, for the average citizen, Guatemala lacks balanced information countering this viewpoint. The government's outreach materials appear inadequate, particularly given the inherent uncertainties and challenges that the grand bulk of producers face. A creatively focused information outreach system is needed

with radio messages, video spots, and rural-based communication exchanges. The government can build on the informational materials that were prepared and distributed, with USAID assistance, during the negotiation and ratification periods. This second phase should highlight the economic returns to small and medium farmers who have diversified, or former producers who are now working in packing plants or supporting enterprises. USAID's project-level farm materials may be presented to show reliable comparative returns for this target group. Focus group interactions should be considered to facilitate the preparation of the best system along with a low cost monitoring system to assess attitudinal change. Repeatedly, interviewees, including small producers and foundations who work closely with them, commented that the only way to convince other small producers about the benefits of diversification was to show them success cases.

Develop rural development strategic plan and support system. A national support strategy and system must be nurtured to help expand producers' and agribusinesses' and small and medium enterprises' access to regional, U.S., and European markets. As mentioned previously, there are multiple proposals for how to advance rural development and how to institutionalize its support. Key among these are the current administration's Rural Development Policy and Cabinet, the private sector's rural development proposal and draft law within the National Vision Plan, and a bid by civil society, indigenous groups, and NGOs for a separate rural development strategy and an autonomous managing agency.

During the next year, it is expected that either the current Rural Development Cabinet or the institutional locus of one of the other proposals will gain strength. If national consensus can be obtained, it becomes critical that the international community support and assist this effort to include even assistance to strengthen a technical secretariat that could be designated to help facilitate the much needed structural change. Key support agenda activities could include: facilitating a national strategic framework and support program elements; interacting with MAGA and AGEXPORT commodity chains to frame support needs along priority commodities; defining roles and responsibilities for public and private sectors; stimulating coordination between donor and government programs; analyzing and framing the institutional support base; establishing transitional support for basic grain producers; structuring support to facilitate agro-industry investments; and providing critically needed analytical services.

Draft ICTA strategic plan. To compete, Guatemala must improve its access to a broad range of advanced technologies. With USAID funding, ICTA is advancing a major internal strategic review. We recommend, however, a complementary external review in collaboration with ICTA leadership. A small team of experienced, product/industry-based research and outreach experts could serve as peer reviewers to assess ICTA's capacity to access state-of-the-art production, post-harvest, and food processing technologies; ICTA's operational means to cost-effectively conduct applied research in critically important market-based topics; and the institute's proposed approaches to access higher-yielding, basic grain seed stock to ensure food security needs, farm budget methodologies, and cost monitoring mechanisms. From such an exercise, an innovative and cost-effective technology outreach mechanism could be developed to begin to

compensate for the expressed alarming absence of extension personnel. Such a mechanism could be developed to include cost sharing payment systems for private/public sector services, technical certification/licensing services, staff development and training programs, and direct private sector and market ties commensurate with Guatemala's potential.

Producers' ability to meet international SPS requirements. One of the greatest impediments to regular entry of Guatemalan products to U.S. markets lies with the capacity of MAGA's inspection unit. As expressed by exporters and international organizations, Guatemala ranks low in plant and animal health and food safety when compared with its Central American peers. This inspection unit must be strengthened so that Guatemalan products will comply with U.S. and EU plant and animal health and food safety requirements. In conjunction with the USDA advisor for CAFTA-DR cooperation assistance, an assessment of this unit's capabilities should be conducted or updated to determine training and operational improvement needs to ensure compliance.

In coordination with AGEXPORT, or other interested private sector organizations, a similar assessment should be conducted for private service providers. Recommendations deriving from this assessment could include alternative private sector support options available to producers interested in gaining sanitary-phytosanitary certifications.

Provide crop insurance. Severe weather conditions regularly cause extensive crop and farm damage. Risk reducing support services are generally lacking and crop weather forecasting services covering Guatemala's many microclimates are not in place. Given these significant limitations and the constraints they impose on enterprise shifts and expanding production, a needs assessment is recommended that incorporates metrological data, crop damage reports, and comparative tables to assess the system, cost structure, and means for providing services.

Improve access to credit. The government has two programs, GuateInvest (*GuateInvierte*) and GiveCredit (*DáCrédito*) targeting small producers. However, small producers and some technical assistance providers through donor programs report that the government uses commercial banks to channel funds from their programs to the producer level. Lack of guarantees, collateral, and reasonable interest rates, ultimately makes these programs inaccessible to much of their target market. Government credit programs for small producers must be analyzed and tailored to better suit small producer needs.

Advance Guatemala's position in fruits and vegetables while stimulating sustainable growth: initial thoughts on program themes to take advantage of the Portman-Bingham Congressional earmark. To best build from past inroads in ways that are responsive to CAFTA-DR and globalization's realities, plus the notably different and increased consumer preferences and demands around product differentiation and improved food safety, Guatemala is provided a special opportunity. Radically changing market demands and requirements require more specialized, systematic production and post harvest attention provide expanded opportunities for small producers and SMEs. Effective responses to these new needs call for greater far greater precision, control and

inspection, and thus present an unprecedented opportunity for more direct producer/consumer market ties.

Guatemala has acquired essential considerable "first generation" linkages between producers of fruits and vegetables and agro-businesses and consumers in the United States, EU, and Central America. However, the consumer base is changing radically while many activities are atomized. Increasingly, fellow CAFTA-DR competitors are developing strategies to expand production and the export of similar products. These dynamics do not appear to have been strategically internalized to maximize Guatemala's need to generate larger levels of improved wages, particularly in the rural sector.

Accordingly, apart from assistance in some of the strategic planning and technical study/project development activities listed above, USAID, the private sector, and other stakeholders are given a special opportunity to expand trade-led agricultural diversification via a new era fruit and vegetable support program. The new opportunities trade-led agricultural sector diversification provides results that Guatemala must more systematically pursue and advance product lines responsive to inter-related super market, agribusiness, food safety, and consumer preferences. In this regard, the Guatemala product supply system has some interesting small examples (some of them donor funded) which begin to respond to these "second generation" requirements. A better understanding of these examples and the more progressive elements associated with the dramatically changing industry trends, combine to provide a new structure for beginning to internalize key support elements so that more broadly, producers and SMEs participate and benefit. This new framework would be based more on consumer analysis to develop more precise the "backward" linkages from the market, the technological, and product management and processing practices and systems that help guarantee product differentiation. This carefully and highly interactive design and implementation would focus on trying to help Guatemala best position itself in the new era of the global food industry. It would require flexibility and interaction with a broad spectrum of industry innovators and technical experts.

Some key complementary points to help Guatemala reach the next level are offered, recognizing that considerable additional work in this complex effort will be required. Apart from the cutting-edge product-line/consumer linkages that key international food industry leaders may bring to help Guatemala more systematically respond to the new needs, links could evolve with AGEXPORT or other private sector organizations and producer associations such that more direct producer/end user market and business ties are instituted. These ties are directly complementary to the quality control systems increasingly required to institutionalize efficiencies in transactions that generate greater producer-level returns. Currently, the multiple intermediaries often fail to reward producers for pursuing best practices and therefore discourage them from undertaking more costly quality control. The thrust here is to structure certification programs that stress food safety, natural resource conservation, organic production, fair trade and production area differentiation, to bolster consumer confidence.

Also, to create the most effective public support regulatory mechanisms, infrastructure and public good investments, and to advance the national interest, a program "feedback" loop from program activities to the public policy arena could be included. Systematically, key information on the successes and drawbacks of production and development could be drawn to generate advice on public and private investments, regulatory reforms, and cross-sectoral initiatives critical to enhance broader regional and national gains.

Facilitating role for the CAFTA-DR Trade Capacity Building Committee. The CAFTA-DR Trade Capacity Building Committee has a mandate to help advance the transformation process faced by the parties to the agreement. This committee is well-positioned to be a facilitator across a broad range of actors including public sector officials (trade, agriculture, finance), the private sector, and other donors. To fulfill this role, the committee may wish to establish a sub-committee to focus on advancing trade-led agricultural diversification by providing a coordinating/facilitating mechanism to help the CAFTA-DR countries and donors mobilize support for achieving the broader objective and sustaining momentum toward meeting this objective. To help sustain this sub-committee, it is recommended that each party designate an appropriate official representative to the sub-committee who has the authority to coordinate domestically among public sector officials and the private sector.

Donor coordination. A considerable amount of technical and financial support is required for the success of the agricultural diversification process. Intensified coordination among donor agencies will help sustain focus on the need for increased funding support and ensure that resources are invested with an eye toward maximum impact on accelerating trade-led agricultural diversification. In some cases, there are broad in-country donor coordination processes underway. The Trade Capacity Building Committee, in close coordination with in-country USAID officials, is well-positioned to facilitate such coordination in support of efforts by the countries to diversify their agricultural sectors. To the degree that both the Government of Guatemala and the United States can accelerate fund disbursement and program implementation, as well as influence the design of potential donor programs, the sooner the process of trade-led agricultural diversification can be advanced. The previously mentioned strategic plan can serve as a tool to harness and shape future assistance efforts.

Prioritizing benefits under CAFTA-DR. Given the vital importance of CAFTA-DR in the region, upcoming and/or potential donor support, and the importance of introducing the rural diversification initiatives early, we propose the creation of a regularly conducted bilateral review in connection with the annual meeting of the Commission of the CAFTA-DR Agreement.

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J. LIST OF INTERVIEWEES

Guatemala		
Name	**Title**	**Affiliation**
Public Sector		
Ricardo Santa Cruz	Vice Minister	Ministry of Agriculture and Livestock (MAGA)
Ligia Rios	Director	Policy and Strategic Information Unit (UPIE), MAGA
Rubency Alvarado	Trade Policy Advisor	UPIE
Enrique Lacs	Vice Minister of Trade and Integration	Ministry of Economy
Carlos Herrera	Vice Minister, SME Development	Ministry of Economy
Luís Oscar Estrada	Vice Minister of Investment and Competition	Ministry of Economy
Carlos Gonzalez	Director, "Desde lo Rural"	Ministry of Economy
Julio Corado	Advisor, Foreign Trade Administration Unit	Ministry of Economy
Carmen María de Mejicano	Sub-secretary of National Food Security & Nutrition Program	National Food Security Secretariat (SESAN)
Ronaldo Quiñones	Advisor, Rural Development Technical Unit	National Planning and Programming Secretariat (SEGEPLAN)
Mario Moscoso	General Manager	Institute of Agricultural Science and Technology (ICTA)
Federico Franco	Vice Minister	Ministry of Environment and Natural Resources
Juan Andrés Godoy	CAFTA Advisor	Ministry of Environment and Natural Resources
Ruben Morales	Executive Director	National Competitiveness Program (PRONACOM)
Leonardo Camey	Congressman	National Union of Hope (UNE)
Oscar Velázquez	Coordinator of Advisors	UNE
Güido Rodas	Advisor	UNE
Julio Melgar	Advisor	UNE
Private Sector		
Fanny de Estrada	Executive Director	Guatemalan Association of Exporters (AGEXPORT)
Edgar Santizo	Exec. Coordinator, Snow Pea Committee	AGEXPORT
Ivan Buitrón	Coordinator, Linkages Program	AGEXPORT

Guatemala		
Name	**Title**	**Affiliation**
Guillermo Díaz	Coordinator, Frozen Fruits & Vegetables Subcommittee	AGEXPORT
Rodolfo Estrada	General Manager	C.S. Internacional - Rural Development Consultants
Rodolfo Castillo	Executive Director	Guatemalan Association of Rural Entrepreneurs (AGER)
Roberto Gutiérrez	President	Red Nacional de Grupos Gestores
Mariano Ventura	Entrepreneur	Founding Participant, National Vision Plan (Plan Visión País)
Multilateral and International Institutions		
Michael Collins	Agriculture Sector Specialist	Inter-American Development Bank
Patricia Garcia	Officer, Trade Policy Program	GTZ
Hugo Vargas	Coordinator, Technical Assistance for Competitiveness	Inter-American Institute for Agricultural Cooperation (IICA)
José Carlos García	Technical Officer, Trade Integration	Secretariat for Central American Economic Integration (SIECA)
NGOs, Academia, Other		
Tomás Rosada	Director, Institute for Economic and Social Studies	Universidad Rafael Landívar
Juventino Gálvez	Director, Institute for Agriculture, Natural Resources and Environment	Universidad Rafael Landívar
Jorge Méndez	President	Fundación Ágil
Mario Cuevas	Director of Finance Research	Center for National Economic Research (CIEN)
Lizardo Bolaños	Economic Coordinator, Legislative Support Program	CIEN
Susana Gauster	Research Coordinator	Coordination of NGOs and Cooperatives (CONGCOOP)
Alfredo Trejo	Director	Fundación SARES
U.S. Government		
Wayne R. Nilsestuen	Mission Director	USAID
James Stein	Economic Growth Officer	USAID
Josefina Martínez	Economist, Enterprise, Trade, and Environment Office	USAID
Daniel Orellana	Regional Coordinator for SPS and TCB	USAID/USDA
Jill Kelley	Mission Environmental Officer	USAID

Guatemala		
Name	**Title**	**Affiliation**
Mario El Cid	Director	USAID Tourism Program
Ronny Mejía	Program Manager	USAID Tourism Program

SECTION 7 HONDURAS

ACRONYMS

ACAN	Rural Producer Organizations-National Small Producer Organizations
AGEXPORT	Guatemalan Association of Exporters
BCH	Central Bank of Honduras
CABEI	Central American Bank for Economic Integration
CADERH	Center for Training and Development of Human Resources
CAFTA-DR	United States-Central America-Dominican Republic Free Trade Agreement
CBI	Caribbean Basin Initiative
CDA	Agribusiness Development Center
CNC	National Competitiveness Council
COCOCH	Coordinating Council of Small Producers Organization of Honduras
COHCIT	Honduran Council for Science and Technology
COHEP	Honduran National Business Council
ECLAC	Economic Commission on Latin America and the Caribbean
FEDECAMARAS	Federation of Honduran Chambers of Commerce
FENAGH	Honduran National Agriculture and Livestock Federation
FHIA	Honduran Foundation for Agricultural Research
FIDE	Foundation for Investment and Export Development
FPX	Honduran Agro-Exporters Federation
FUNDER	Rural Business Development Foundation
IDB	Inter-American Development Bank
IFPRI	International Food Policy Research Institute
IICA	Inter-American Institute for Cooperation on Agriculture
IPEA	Institute for Applied Economic Research
IPC	Central American Polytechnic Institute
LAC	Latin America and the Caribbean
MCC	Millennium Challenge Corporation
NAFTA	North American Free Trade Agreement
NGO	Nongovernmental Organization
NTAE	Non-Traditional Agricultural Export
PESA	National Policy for the Agricultural, Agro-Industry, and Rural Sectors
PRS	Poverty Reduction Strategy

RED	Rural Economic Diversification Program
SAG	Ministry of Agriculture
SENASA	National Service for Agricultural Safety
SIC	Ministry of Industry and Commerce
TIC	USAID's Trade Investment and Competitiveness Program
UN-ECLAC	United Nations Economic Commission for Latin America and the Caribbean
USDA	United States Department of Agriculture

SECTION 7 HONDURAS

A. INTRODUCTION

With its modern port facility and close proximity to the United States, Honduras is well positioned to take advantage of the opportunities offered by the United States-Central America-Dominican Republic Free Trade Agreement (CAFTA-DR) and experience broad based growth. Nonetheless, Honduras faces many significant challenges in order to realize this growth. Though a large country by Central American standards, only 15 percent of its land mass is arable. More than half of its 7.2 million citizens reside in rural areas, of which 70 percent live in poverty. Honduras has the second highest level of poverty in the region behind Nicaragua, and, at 2.6 percent, the region's highest population growth rate (World Bank 2006). Honduras needs to undertake focused efforts over a sustained period to rapidly reduce its poverty levels.

B. MACROECONOMIC OVERVIEW

After decades of military rule, democracy returned to Honduras in 1982, with the election of Roberto Suazo Córdova, who inherited a stagnant economy caused by the deteriorating import substitution regime of his predecessors. Beginning in 1990, fundamental economic structural reforms were introduced, which included major monetary devaluation, and increased tax revenues and budgets. Trade liberalization initiatives led to trade agreements with Mexico, Dominican Republic, the United States, Canada, the EU, Colombia, Taiwan, Panama, and Chile. A variety of structural, institutional, and regulatory reforms were also undertaken, particularly in response to structural adjustment requirements faced throughout Latin America. Reactions to these reforms were initially positive and the key macro interventions have in varying degrees, been maintained, particularly in the area of fiscal policy.

However, these interventions did not translate into sustained growth or poverty reduction because of a combination of Honduras' weak institutional base, reliance on a small number of primary commodities, and the consequences of devastating droughts and Hurricane Mitch. Notably, it was not until 2001, when Honduras negotiated the Poverty Reduction Strategy (PRS) with the IMF, that public expenditures for poverty alleviation began to attract increased attention. Under this arrangement, critically needed public social services were increased, while at the same time reducing the deficits that had been gradually increasing. Also under the PRS, a series of legal reforms were introduced to reduce rural poverty (i.e., laws and policies related to property and title issuance, alternative rural financial systems, gender equity, agricultural producers, and food security) (Government of Honduras 2005). Nevertheless, by the end of 2001, Honduras' deficit reached 6.1 percent of GDP, more than the 4.5 percent target agreed to under the PRS, which resulted in interest rate hikes and declining investment.

Between 2001 and 2004, strict fiscal controls were introduced to maintain a disciplined monetary policy and the structural reforms necessary to achieve the fiscal targets of the

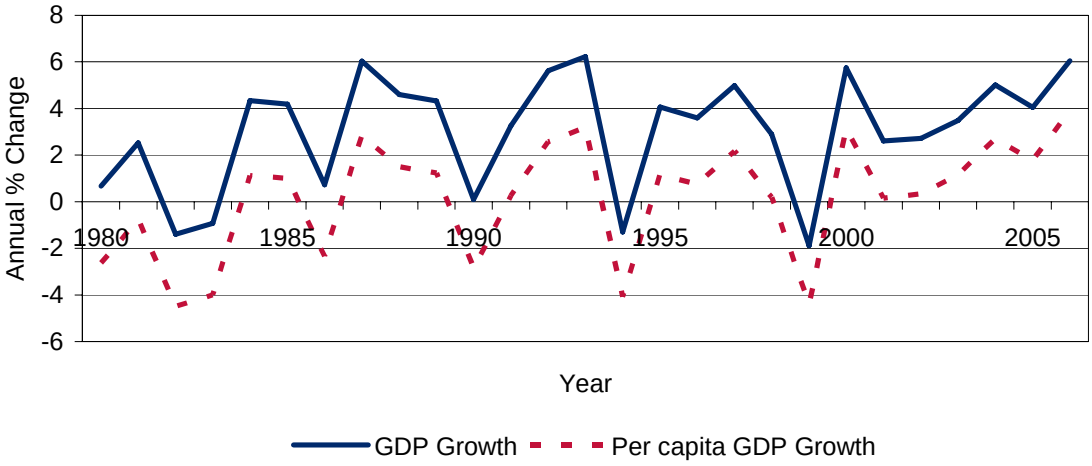
PRS. Reforms to the financial system were gradually introduced, including central banking, supervisory, and deposit insurance laws.

There have been some setbacks following President Zelaya's election in 2005, including increased government subsidies to offset rising petroleum costs. In response to some of the setbacks, the GOH has requested a waiver to the previously lowered fiscal deficit target. Currently, a mix of trends (weakening public finance situation, realignment of the monetary policy, and accelerated credit expansion) is generating concerns (La Tribuna 2007).

C. KEY ECONOMIC INDICATORS

Gross domestic product trends. Honduras' growth reflects the changing commodity prices for coffee and bananas, its traditional motors of growth, and shows how severely natural disasters have impacted the economy (see Graph 1). Since 2000, Honduras has enjoyed sustained growth, reaching 6.05 percent in 2006. However, even as economic conditions have stabilized and improved in recent years, per capita GDP has grown weakly at an average rate of 1.88 percent since 2000, due in part to complex and unanticipated inter-sectoral performance.

Graph 1: GDP and GDP per Capita Growth, 1980-2005 (Annual Percent)



Source: World Bank 2007

The agricultural sector is principally comprised of primary crop production (63 percent), livestock (11 percent), poultry (8 percent), forestry (8 percent), and fish (6 percent) (SAG 2006). Economic development usually stimulates value added refinements from this primary, least remunerative economic sector. As noted in Graph 2, agriculture's share of Honduras' GDP has declined from a peak in 1994 of over 24 percent, by nearly half to 13 percent. As noted, this has been a volatile shift due to declines in commodity prices, the ravages of Hurricane Mitch, and falling productivity and competitiveness from the late 1990s onward. Over the last decade this trend generally stabilized to the point of an unexpected anomaly over the last five years of actually expanded economic contribution.

As further observed, since 1998 industry's contribution has stalled and declined while the service sector has grown only marginally. Serious irregularities are observed for traditionally this structural transformation process stimulates job "pull" from agriculture but herein was insufficient. Off-farm job growth is also "pushed" due to expanded sector growth and productivity even as its overall value added share declines but the overall growth averaging 2.7 percent during the last 15 years was insufficient to serve other sectors (Serna 2007). Overall, the other sectors have not grown sufficiently to absorb workers normally displaced from the agriculture sector (SAG 2006), Aspects of these dynamics are further discussed.

The agriculture sector is Honduras' single largest employment base (854,000 workers, or 35 percent of the work force) and is the largest producer of exports (discussed further below).

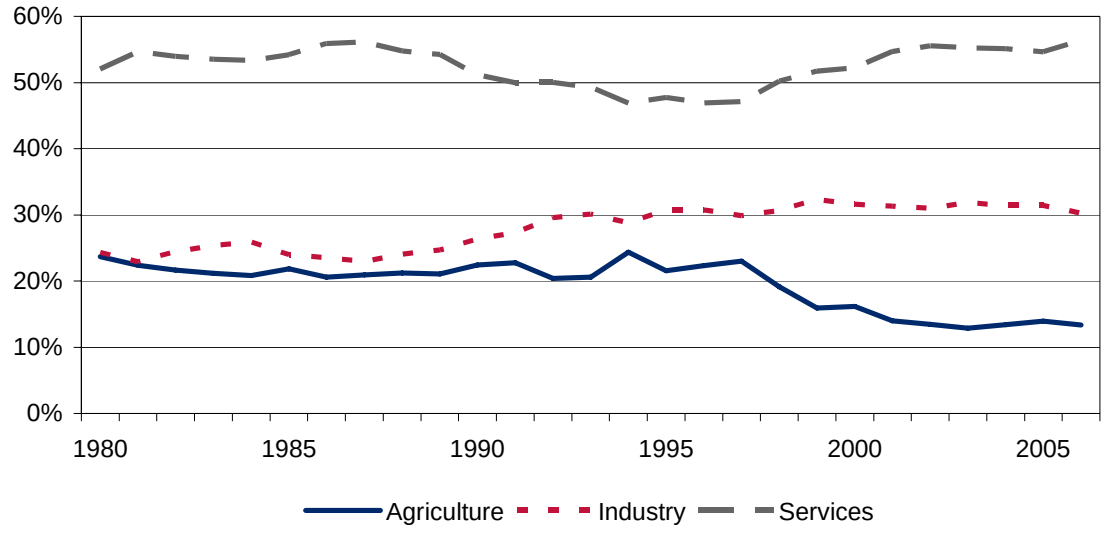
This review builds from the traditional national accounts measurement presented in Graph 2 to embrace Honduras' new view of agriculture[1] that has been expanded to include agro-processing or agro-industrial product lines. In this context, Graph 2 does not capture the significant contribution of primary production combined with value-added agro-processing to the Honduran economy. Today's trade-based and market-driven environment demands more sophisticated input and product sales tasks, product transformation activities, transportation and financing services, which require the emergence of numerous inter-connected, value added service providers. Primary product transformation results in downstream multipliers. In 2005, SAG estimated that agriculture and agro-industry comprised between 40 and 45 percent of the national GDP (SAG and SIA 2005). For example, in 2005, the food, beverage and tobacco sub-sectors, which depend upon Honduras' primary products, are responsible for half of the growth observed in the industry sector, not including *maquila*. Such interconnected, multi-sector linkages are critical to improving Honduras' growth and taking advantage of expanded trade opportunities.

Trade expansion. Honduras' export performance has been moderate, though punctuated by highs and lows mostly related to its heavy reliance on traditional commodity goods and their inherent price fluctuations (see Graph 3).

Throughout the 1990s Honduras diversified its product exports and export markets more notably. For example, between 1990 and 1992, coffee and bananas represented 58 percent of Honduras' total exports, but by 2005 they accounted for only 34 percent of exports, exclusive of maquila figures (BCH 2007). These commodities were mostly displaced by industry exports from the *maquila* sub-sector, and by non-traditional agricultural exports (NTAEs) tracked separately and as part of the expanding "other" category.

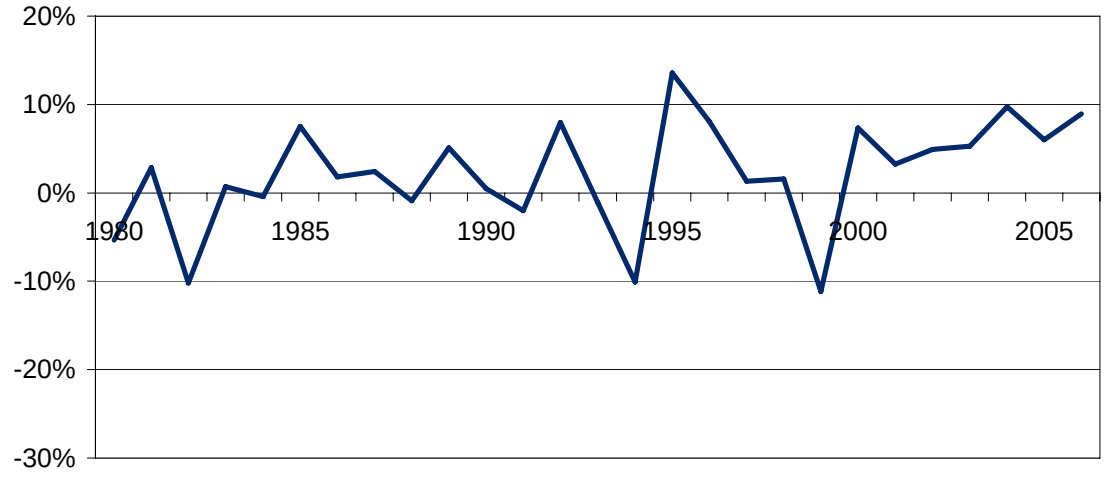
[1] The government of Honduras uses the term *agroalimentario* to denote agricultural primary production *and* agro-industry.

Graph 2: Sector Contribution, Value Added, 1980-2005 (% of GDP, Current US$)



Source: World Bank 2007

Graph 3: Exports of Goods and Services 1980-2005 (Annual Percent Growth)

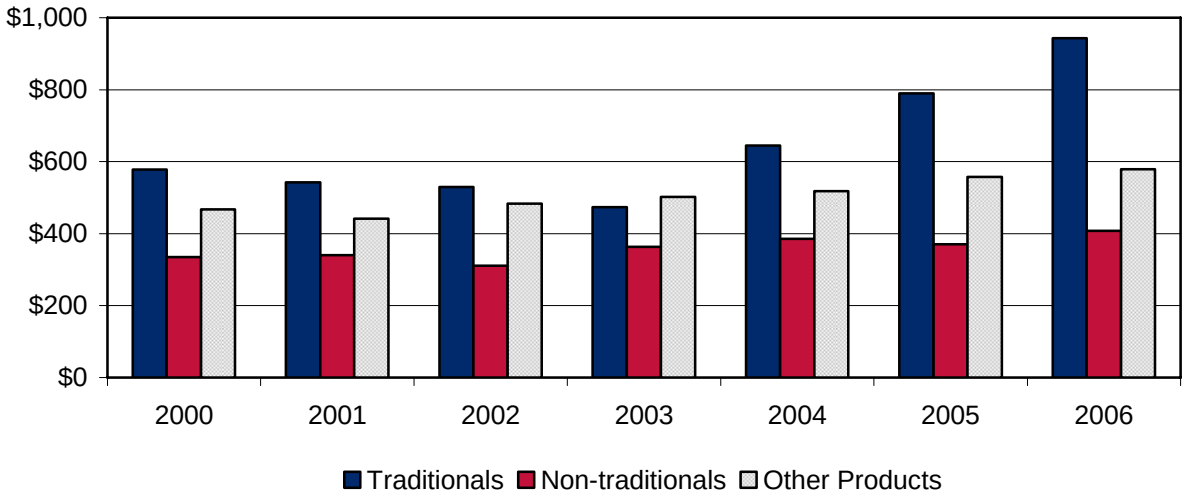


Source: World Bank 2007

As reflected in Graph 4, non-traditional and other export revenues have surpassed traditional exports, despite higher coffee prices in 2005 and 2006**.** While the central bank tracks specific non-traditional exports, the expanding "other" category implies the expansion of exports that are not counted in the non-traditional category. Furthermore, Honduras' successful experience adjusting to changes in the *maquila* industry after the

end of the multi-fiber agreement have allowed it to become the fourth largest supplier of textile and apparel products to the United States, behind China, Mexico, and Canada (Otexa 2006).

Graph 4: Exports by Sector (US$ Million) 2000-2005



Note: Traditional exports are banana, coffee, wood, gold, silver, lead, zinc, and sugar. Non-traditional exports consist of shrimp, lobster, tobacco, melons and watermelons, pineapple, soap and detergents, wood manufactures, and palm oil. For 2001-2006, preliminary figures.

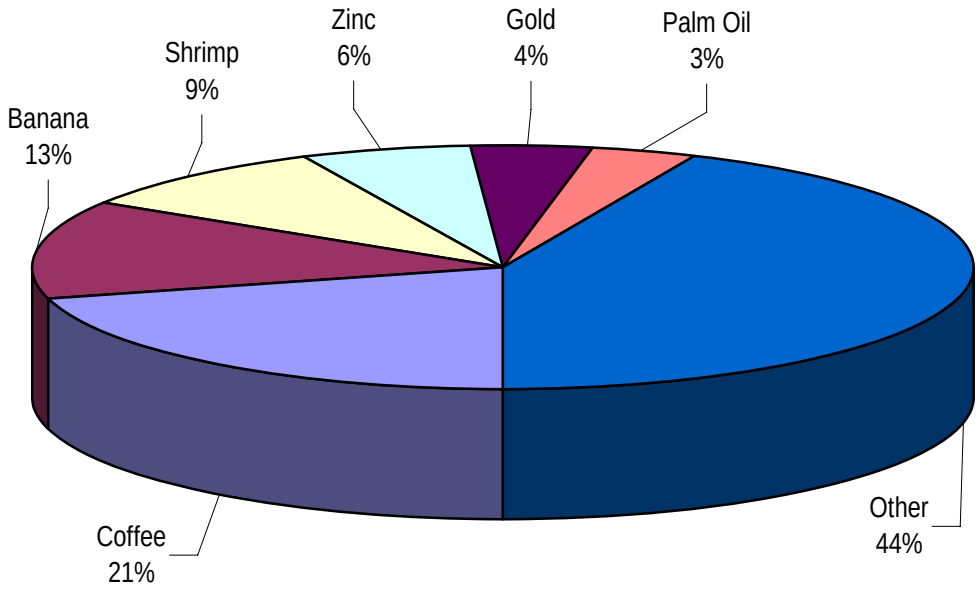
Source: CARANA Corporation with Central Bank of Honduras data

The growing potential of the NTAE sector requires closer examination. Since 1985, the range of NTAE products has expanded significantly, but only a small number of products have experienced sustained growth. The diverse list of product lines includes shrimp, pineapple, cantaloupe, watermelon, oriental vegetables, tobacco, and more recently, jalapeño peppers and tilapia. Over the last 15 years, productivity levels (tons per hectare) for only three of Honduras's 27 export crops (or potentially exportable crops) have seen total growth of 5.0 percent or greater, while another 12 have seen positive growth of less than 5.0 percent. The remaining products saw declines in productivity for the period (Serna 2007). Furthermore, each of the 11 principal agriculture or agro-industrial products exported to the U.S. between 2000 and 2004[2] either lost or barely maintained their global market share, although bananas, melons, and lobster did see notable increases in their share of the U.S. market. (Ibid.). A comprehensive review of all primary agricultural products exported to the U.S. between 1998 and 2004 reflects this same trend. Honduras was ranked among the world's top ten exporters to the U.S. for 28 agricultural products in 1998. By 2004, it either lost production levels and/or ranking for one half of these products (SAG and SIA 2005). In short, while some of these goods demonstrate potential, they are insufficient to stimulate significant growth because only a shrinking number have been able to sustain competitiveness.

[2] These are: banana, coffee, pineapple, melon, watermelon, lobster, shrimp, sugar, tobacco, wood, and palm oil.

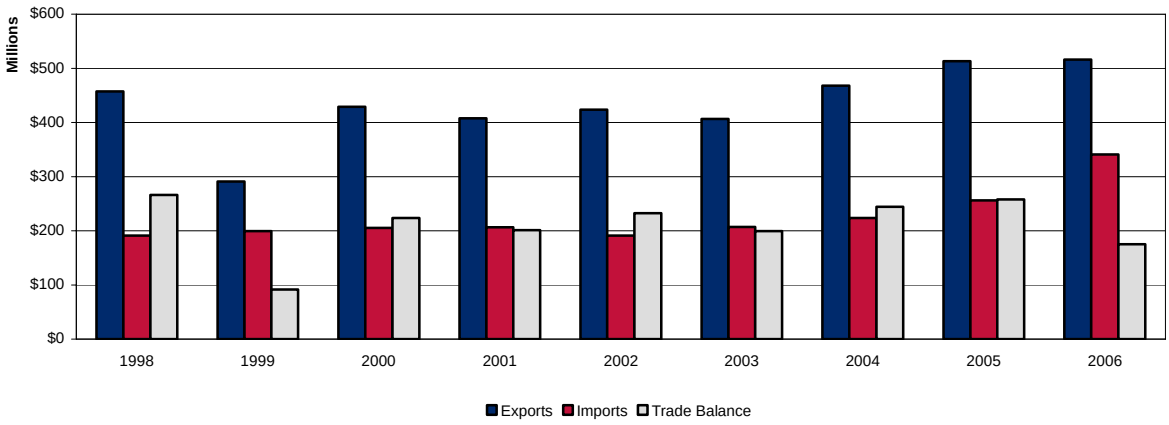
The United States is Honduras's principal trading partner, receiving 41 percent of its exports, followed by Central America (24 percent) and the European Union (23 percent). Honduras' trade balance with the United States, in the agriculture sector in particular, has been highly favorable to Honduras (see Graph 6 below).

Graph 5: Honduran Key Product Exports, 2006 (Percent of Total Exports)



Note: Preliminary export figures for 2006
Source: Central Bank of Honduras, 2006

Graph 6: Honduran Agricultural Trade Balance with the United States 1998-2006 (US$ Million)



Source: U.S. International Trade Commission 2006

Poverty. In spite of years of considerable effort on poverty reduction, Honduras has made only marginal improvements. Honduras' per capita income of US$1,030 is one of

the lowest in Latin America and the Caribbean, with 50.7 percent of the population living in poverty in 2004 (World Bank 2006). The vast majority of Hondurans who live in poverty (73.7 percent or 2.5 million) resides in the rural sector, of which 86.1 percent are categorized as extremely poor (Ibid.).[3] Notably, agriculture accounts for 81 percent of employment for the extremely poor (Ibid.). Acknowledging differences across poverty assessment methodologies, the World Bank recently summarized the state of poverty in Honduras: "since the late 1990s, it is most likely that urban poverty has declined, rural poverty has increased, and overall poverty has declined slightly" (Ibid.).

The UNDP/IPEA recently conducted a survey of rural households to assess productive capacities and related growth and poverty dynamics. This survey portrays an even more sobering assessment of rural poverty in Honduras. The study found that between 1998 and 2003, the total amount of Hondurans living in poverty increased from 54 percent to 58 percent, with a disproportionate increase in rural poverty from 70 percent to 76 percent. This increase, coupled with actual population growth, resulted in an additional 740,000 Hondurans falling below the poverty line. This increase would have been greater had it not been for increased migration to urban areas and beyond (Paes de Barros, Carvalho, and Franco 2006).

D. RURAL SECTOR DYNAMICS

Rural poverty. Rural inequality is changing more rapidly in Honduras than in any other Latin American country (Ibid.). This is due, in part, to the notably high percentage of the active work force engaged in agriculture, which is Honduras' most rapidly declining sector. Lower productivity levels for labor and land, as well as lower total factor productivity levels, exacerbate the problem. In addition, structural issues ranging from limited focus on education to inefficient remnants of import substitution infrastructure, seriously constrain Honduras' ability to foster more remunerative utilization of its natural resource base.

Currently, 60 percent of rural households have at least one worker in agriculture and receive more than 40 percent of their household income directly from this sector, which is increasingly unprofitable. Between 1990 and 1997, gross annual income per hectare for maize producers with less than five hectares of land averaged $251 per year, while the period 1998 – 2005 average gross income fell to $228 per hectare (Serna 2007). This heavy dependence on a declining sector forms a key deterrent to ameliorating national poverty, especially since other economic sectors have not sufficiently absorbed the surplus labor force (Ibid.). Furthermore, necessary investment is stifled by the risks associated with shifts in land use and the sector's de-capitalization in both financial and human resource terms. Commodity prices for Honduras' major export crops have fallen

[3] While thus study consulted various respected international and national institutions dealing with rural poverty, it was found that estimates of poverty and extreme poverty in the rural sector of a country can vary depending on source and methodology. To present standardized cross-country comparisons, as described in Volume I, Annex C-Tables C.1 and C.2, UN-ECLAC data were used. As noted in Volume I, 84.8 percent of Honduras' rural population lived in poverty (less than US $2 per day), while 69.4 percent of the rural population lived in extreme poverty (less than US$1 per day) in 2003.

22.7 percent since 1995 (Ibid.). These developments constrain producer and agribusiness incomes and contribute to limited investment.

Land use and economic impact of basic grains compared to other products. Basic grains, coffee, sugar cane, African palm, and banana utilize 90 percent of Honduras' arable land base (Paes de Barros, Carvalho, and Franco 2006). The bulk of this land is utilized for basic grain production, in particular maize (40 percent), sorghum (10 percent), and beans (5 percent), which only accounts for 13 percent of the total agricultural product and generates limited value added employment and sales multipliers (Serna 2007). For example, maize employs 29 percent of the agricultural work force but only generates 8 percent of the sector's output (Taylor, et al 2006). Furthermore, land productivity in Honduras for basic grains is under 1.5 tons per hectare, or 80 percent less than the yield in other Central American countries and half of 3 tons per hectare average in Latin America (Paes de Barros, Carvalho, and Franco 2006).

Coffee, the traditional pillar of the national economy, has still not adjusted to the global crisis that devastated Central American producers in the late 1990s. Whereas countries such as Guatemala pursued a strategy to differentiate their coffee to enter high value specialty markets, Honduras expanded the land area dedicated to coffee — now 20 percent of the arable land base — without investing in productivity improvements or post harvest handling. By choosing to remain in the basic commodity market, Honduras actually lost market share, as well as an opportunity to pursue brand differentiation. Honduran coffee producers took the biggest price hits of any of the 18 top export products between 1993-97 and 1999-2003 (Ibid.). In contrast to basic grains and other traditional exports such as coffee, the production chains of NTAEs generate value added multipliers such as downstream jobs and sales (Ibid.). Specifically, fruits such as banana, melon and pineapple use five percent of the arable land mass but generate 20 percent of the sector's GDP. Moreover, the average income earned from production of fruits, vegetables, livestock, and farming other than basic grains, was two to three times higher than that for production of basic grains and cereals (see Table 1).

Table 1: Average Income by Activity in Honduras

Type of Activity	Participation (%)	Average Income from Work*
Farming: basic grains, cereals, and other	51.1	39
Farming: horticulture and legumes	7.0	98
Farming: fruits, nuts, and plants	25.1	88
Livestock: cattle and sheep, goats, horses, donkeys, mules, and hinnies	9.2	150
Aquaculture: fishing, fish farming, and related activities	2.0	213
Other	5.5	99

* US$ for March 2003, per month per worker
Source: Paes de Barros, 2006

Rural labor markets. Between 1998 and 2003, jobs in the agriculture sector actually increased. However, this was accompanied by a 24 percent decline in average wages (Paes de Barros, Carvalho, and Franco 2006). Currently, wages for agricultural workers in rural areas are equivalent to less than one half of the national average (Ibid.).

Table 2: Participation of Rural Homes in Diverse Economic Activities

Source	Percentage Receiving Income from Each Source					
	Landless/ Renter, Low-skilled	Small Scale Producer, Basic Grains	Commercial			Total
Production			**Small**	**Medium**	**Large**	
Basic	80.0%	95.8%	95.6%	97.3%	97.3%	93.2%
Livestock	93.0%	87.5%	94.7%	95.5%	100.0%	94.1%
Traditional Crops	1.0%	4.0%	25.7%	26.8%	33.0%	18.1%
Non-Traditional Crops	1.0%	4.2%	9.7%	12.5%	16.1%	8.7%
Non Agriculture	1.0%	4.2%	4.4%	15.2%	28.6%	10.7%
Agriculture Salaries	69.9%	69.0%	66.9%	68.1%	75.4%	69.9%
Non-Agriculture Salaries	28.9%	31.0%	32.1%	31.0%	23.9%	29.4%
Internal Remittances	60.0%	68.0%	93.8%	93.8%	93.8%	81.9%
International Remittances	7.7%	14.3%	17.0%	21.1%	23.9%	16.8%
Transfer of Public Funds	100.0%	70.8%	93.8%	93.8%	93.8%	90.4%

Note: Basic production comprises rice, corn, sorghum, and beans. Traditional crops comprised of banana, coffee, and sugar.

Source: Taylor et al 2006

Given the trend of falling wages, the IDB conducted a survey of rural households and discovered that a large percentage receive income from multiple activities (see Table III.2). These activities span various enterprise sizes and are distributed among farm and non-farm activities. Nearly all rural residents are involved in both basic agricultural production and livestock pursuits while producers without land (i.e., renters or day laborers) have less access to remittances from internal or international sources. All homes that did not own land benefited from pubic assistance of some kind. Large commercial producers exhibited the greatest enterprise diversity, with 16.1 percent receiving incomes from non-traditional crops — the highest percentage among all groups. (Taylor, et al 2006). Considering the increased incomes shown in Table III.1 for production of non-traditional crops in comparison with basic grains, the 8.7 percent total participation rate for non-traditional crops shown in Table III.2 demonstrates a base for further expansion.

Rural diversification as a means to reduce poverty. Over the last 20 years, and the last five years in particular, there has been a slow and inconsistent effort to diversify exports, initially into *maquilas* and to a lesser degree NTAEs. While these have had some positive impacts, poverty and migration have not declined. Focused leadership is needed to improve productivity, through changes in land and labor practices, and stimulate the

pursuit of more remunerative activities in the agriculture sector and the expansion of value-added services.

The World Bank poverty review cited earlier concluded that growth rates of at least 5 to 6 percent are needed to reduce inequality by 10 percent as measured by the Gini coefficient. The review further states that higher growth must be accompanied by increased productivity across all economic sectors if it is to reduce poverty, especially in the rural sector (World Bank 2006). The benefits of such growth can be observed in Honduras' shrimp and melon sectors and their related investments, which have generated such powerful multipliers in the south that poverty levels have declined notably (Ibid.).

Honduras's other success stories include jalapeño peppers, where it has become the leading exporter to the U.S. Though growth in the non-traditional agricultural exports sub-sector has stalled recently, it is was estimated that it generated at least 100,000 jobs (World Bank 2004). Tilapia has been another success story for Honduras, as the country was forecasted to become the leading tilapia exporter to the U.S. in 2007. As early as 2004, Honduras had 1,000 Tilapia producers that employed 19,000 workers directly and another 50,000 workers indirectly (FIDE 2004).

Nevertheless, while more than half of Honduras's traditional and non-traditional exports have stagnated for a number of reasons, including poor market position, slow response to market trends, and weak competitiveness, a few products have stood out both in terms of increased productivity as well as competitiveness against regional neighbors. Melon, African palm, sugar cane, pineapple, avocado, and grapefruit have all demonstrated strong growth in productivity, however this is in marked contrast to the productivity stagnation and volatility seen in basic grains (Serna 2007).

E. AGRICULTURAL SECTOR DIVERSIFICATION OPPORTUNITIES AND SUPPORT UNDER DR-CAFTA

As the first anniversary of DR-CAFTA's entry into force for Honduras passes, there is a need to advance the agreement's provisions in ways that facilitate rural sector diversification supportive of broad-based growth. The expansion of farm and off-farm employment based on product-related transformation and support services becomes critical. While this transformation will not be easy, DR-CAFTA and other upcoming trade agreements offer the potential to be catalysts for the reforms needed to accelerate trade-led growth in the rural sector.

The IDB concluded that there are serious challenges that confront the rural and agricultural and livestock sectors to achieve sustained, broad-based economic growth under DR-CAFTA. Special attention to economic liberalization during the 1990s resulted in Honduras becoming one of the most open economies of Latin America, but these reforms alone have not been sufficient to respond to the challenges of economic growth in the rural sector (Taylor, et al. 2006). Obstacles that need to be overcome include lack of investment, technological changes that are slow and limited, concentrated input and product markets, and scarce formation of human capital (Serna 2007).

A serious long-term perspective is vital for Honduras to best confront structural problems constraining desperately needed economic and social improvements. The next section reviews the current efforts related to rural growth and diversification of the key support bases.

F. DOMESTIC AND INTERNATIONAL EFFORTS TO FACILITATE AGRICULTURAL DIVERSIFICATION

In the context of DR-CAFTA, several opportunities for Honduras can and are being pursued. Honduras has a potentially powerful base to advocate for agricultural and rural diversification consisting of its governmental structure, the broader civil society including private sector enterprises, support institutions of regional acclaim, and the highly supportive donor community. Much more is known regarding the important challenge and opportunities of rural diversification and how this is inexorably linked to rural poverty trends. This process, however, has been slowed due to the inherent complexities associated with the medium to long-term transformation process, which in the context of globalization's realities, must be quickly pursued. For this process to fully commence, requisite strategies, reforms, and facilitating efforts must first be initiated. To obtain a better understanding for helping form and frame this agenda, a brief review of key programs within the public, civil society, and donor sectors is presented.

Public sector. While the Zelaya Administration supports DR-CAFTA, which was negotiated by the previous administration, implementation of the agreement does not appear to be a high priority. Moreover, since each new administration brings new personnel at every level of government, there are currently an insufficient number of personnel familiar with the negotiations or trained in technical aspects of FTA implementation. One of the positive steps being taken by the government is the development of a new export promotion strategy. As in the case of the other countries reviewed, the Ministry of Commerce (SIC), the lead governmental agency responsible for trade negotiations, has deferred the advancement of rural diversification to the Ministry of Agriculture (SAG). Key program elements of their portfolio and related government entities are described below.

Under the previous administration, a long-term strategy for the agriculture and agro-industry sectors was designed through a consultative process with public and private sector actors and assistance from the IDB. The result was the National Policy for the Agriculture, Agro-industry and Rural Sectors 2004-2020 (PESA). The vision embodied in the PESA was:

> To transform Honduras's agriculture from its emphasis on primary agricultural products to a modern agriculture that embraces primary agriculture [and] the industrial transformation of these products and the capital goods and services in the context of sustainable development and value chains, with quality, competitiveness, economic, returns, and whose benefits are distributed equally within the society. (2004)

Although the PESA is meant to embody a national policy, the current administration has used the PESA as a foundation for the current Strategic Operational Plan for the Agriculture and Agro-industry Sector 2006-2010, which is guiding the Zelaya administration's approach to the sector. The Operational Plan is the Zelaya administration's effort to confront the decline in the agriculture sector and its implications for rural labor, opportunities, and livelihoods. The principal components of the Plan are: food security, productive transformation, poverty reduction, empowerment and decentralization, regionalism and target groups. The Plan's goals are as follows: 1) growth of the value-added agri-food sector by at least four percent annually; 2) reduce extreme poverty by two percentage points per year; 3) generate 50,000 productive jobs per year and reduce rural underemployment; 4) reduce child malnutrition from 29 to 22 percent; and 5) increase export value by six percent yearly in real terms (SAG 2006). The plan only briefly mentions DR-CAFTA and is not specific on how these various programs will achieve the overall objectives outlined in DR-CAFTA.

PESA Strategic Pillars and Support Elements

Macro and multi-sectoral policies: a) macro-economic policies; and b) multi-sectoral policies for the rural sector

Transformation of the agro-industrial sector: a) competitiveness and quality as paradigms for sector development; b) productive development and integration of agro-industrial links; and c) poverty reduction and improved rural welfare

Institutional reform for the agro-industrial sector: a) common institutional alliances for rural development; b) public sector role based on quality and focus; and c) private sector participation.

Source: SAG 2004

Similarly, the Plan presents programs to support productive transformation but, in practice, the administration is emphasizing expansion of basic grain production. Under productive transformation, the government lists a series of support programs for sub-sectors including dairy, cattle, pork, poultry, apiculture, citrus, guava, rambutan, lychee, papaya, ethanol production from sugar, African palm, cacao, plantain, cotton, organic banana, specialty coffee, tilapia, and mussels and related shell fish (Ibid.). However, the program with highest visibility is the Productive Technological Assistance to the Small Producer ("Bono Tecnológico Productivo de Apoyo al Pequeño Productor"), later transformed to the Plan for the Prevention of Corn and Sorghum Shortages 2007.

The latter, known as *Plan Maíz*, is the most publicized of the government's efforts in support of basic grain production. It was launched in February 2007 to counteract the expected shortages of corn for consumption that would result from increased use of corn for ethanol. To accomplish this, the Plan aims to improve productivity on approximately 135,000 ha (110,000 corn and 25,000 sorghum) such that total grain production more than doubles on 63,100 farms during three crop cycles. (Hectare figures were calculated using a conversion multiple of .55 to .69 for *manzanas* to hectares.) The plan will also use controls such as the temporary ban of maize exports to Central America, lowering of interest rates, authorizing yellow maize imports, contracting technicians, introducing purchase/sales contracts, and extending credit lines for production, marketing, storage and tractors, and irrigation. Total Plan investment is projected at US$96 million (SAG and INA 2007).

Although the long-term PESA and short-to medium-term Strategic Operational Plan barely reference DR-CAFTA, the SAG did prepare a document to specifically address the opportunities and challenges of the trade agreement: DR-CAFTA and Agriculture and Agro-industry Policy in Honduras. This document lays out the expanded role SAG will be required to play to facilitate the necessary support mechanisms and structural improvements needed to advance under DR-CAFTA (SAG and SIA 2005). Furthermore, it clarifies that the overall objective of trade agreements for the government is to:

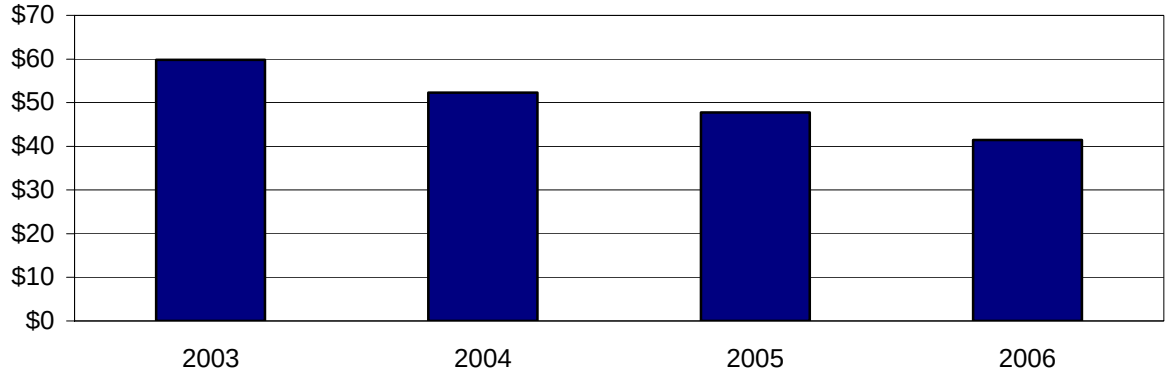
> Facilitate and promote better levels of economic, social, and human development to all Hondurans via the advantage the nation's insertion with the international economy opportunities offers… with the purpose of improving the efficiency and competitiveness of the strategic sectors along the production and marketing chain, increasing product value added, increasing total volume, diversifying exports, improving product quality, increasing investment levels, and maintaining high quality suppliers and competitive prices (Ibid.).

The document presents products with revealed opportunities for U.S. export under DR-CAFTA: horticulture, fruits and related processed products, dairy products, fish and crustaceans, live plants and flowers, sugar, cacao, food products, and tobacco.

To overcome its inherent challenges and capitalize on the opportunities DR-CAFTA provides, Honduras needs a better strategic framework and institutional base. While the PESA provides the broad framework and the medium to long-term national strategy, it has not been sufficiently advanced. Concurrently, the Strategic Operational Plan and DR-CAFTA bulletin described above are informative but insufficient to respond to the rigorous challenges implicit under globalization given the decapitalization observed in agriculture-related institutions, technical staff, and infrastructure.

As Honduras faces increased levels of rural poverty and pressure to address competitiveness challenges, the amount of budget support to help confront numerous trade-based requirements and productivity realities, has declined from 11 percent of the government's total budget in 1990 to 3.5 percent in 2005. Graph 7 below shows the most recent declines in SAG budget levels in real terms.

Graph 7: SAG Budget, 2003-2006 (Current US$ Millions)



Source: SAG 2007

The Secretary of Industry and Commerce negotiates trade agreements with other countries and ensures compliance with Honduras's commitments. SIC has also been mandated to facilitate participation under DR-CAFTA. They have provided some cross-sector support to small and medium enterprises, such as chairing the Trade Capacity Building Committee and conducting information sessions on DR-CAFTA. SIC's current efforts center around the National Export Promotion Plan, for which they have quantified market demand for products that Honduras exports and are finalizing the statistical analyses and exploring other potential export possibilities. The timetable for completing this Plan is late May 2007.

SIC presented a comprehensive National Action Plan for Trade Capacity Building in June 2004 that highlighted two major themes relevant to this review. First, the government's Rural Development Program is needed to catalyze increased rural income and employment by improving rural productivity and access to market information. The program focuses on a variety of aspects, including technology transfer, crop research and identification of diversification efforts, increased access to capital, new and improved market links, etc. While preliminary work in this area has been promising, considerable additional resources are necessary to make an impact of the magnitude that is needed in Honduras (Government of Honduras 2003).

Second, with regards to the sanitary and phytosanitary work undertaken by the SAG's SENASA:

> The accredited laboratories testing animal and vegetable health, as well as seafood safety for human consumption, need to be modernized. The number of accredited laboratories needs to be increased, the level of technology utilized in the labs needs to be improved, and the number of lab workers trained needs to be increased. There also needs to be a more focused strategy to work on the eligibility requirements for entrance to the U.S. markets (Ibid.).

The National Competitiveness Commission, managed by a technical secretariat within Foundation for Investment and Export Development (FIDE, see below), is the lead national entity advancing competitiveness. It directs a National Competitiveness Program (*Honduras Compite*), which works to improve the investment climate and to promote exports. CNC receives its principal funding from the World Bank and the IDB for their support programs, which include special funds for pre-investment activities (*Fondo de Competitividad*), strengthening linkages across SMEs in competitive value chains (*Programa de Proveedores*), technical assistance to implement international norms such as HACCP (*Fondo Honduras Calidad*), and technical assistance funds for small and medium-sized handicraft and furniture enterprises (*Fondo Honduras Inova*). CNC has prioritized Honduras' agro business, wood and furniture, tourism, light assembly, and services sectors.

Civil society. Of the many organizations visited, those listed below are the most relevant to this assessment's objectives.

FIDE was founded in 1984 as part of USAID's efforts to support the government and private sector's response to the new business climate created by the CBI. FIDE has broadened its funding base considerably, with major financing currently provided by the IDB and World Bank. USAID extended funding for specific activities, such as a recent study on market opportunities for Honduran fruits and vegetables in El Salvador. FIDE also manages USAID's Trade, Investment and Competitiveness (TIC) Program focused on enhancing local capacity to research, analyze, and formulate related policies. In addition to managing the TIC program, FIDE's principal activities include investment promotion, technical assistance through the CNC, and support for improvements in the business enabling environment. FIDE also operates a Registry of Exporters that compiles information such as business profiles, product supply, and experiences. This registry has been used by approximately 600 firms.

The Honduran Business Council was founded in 1967 to inform and advise the government on macroeconomic conditions and the adequacy of legal and institutional structures to advance socially responsible free enterprise. As such, COHEP played a leading role advising the government on various private sector issues during the DR-CAFTA negotiation process. It represents all major economic interests and sectors, including small and medium enterprises, and municipal chambers of commerce based outside of Tegucigalpa. In 2000, FEDECAMARA, which is part of COHEP, was formed to represent all the chambers of commerce and industry throughout Honduras. This has helped stimulate much needed business development and has facilitated informational outreach activities for DR-CAFTA.

COHEP's services include promoting strategies related to business competitiveness, international trade negotiations, export and investment promotion, and business and private sector partnerships. COHEP has taken an interest in Honduras' long-term development. Currently they are developing a long-term national strategic vision, National Plan 2025. This is an innovative, high-level effort to build a framework to encourage future administrations to advance on the complex, structural reforms needed.

The Honduran National Agriculture and Livestock Federation, FENAGH, has been a strong advocate for agricultural sector modernization since it was founded in the 1960s. FENAGH is the sector's voice within COHEP. As evidence of the clout this organization holds, they hosted a national debate between presidential candidates during the last elections. FENAGH's organizational strategy highlights four issues highly relevant to this review: the challenges and employment implications associated with increased food imports; limited public and private capacities; monitoring mechanisms needed to evaluate and adjust key policy decisions critical to the sector; and the presentation of priority actions needed for the private sector to respond to growing trade liberalization (FENAGH 2005). Notably, PESA's role and elements are also incorporated into FENAGH's strategy (Ibid.).

The proposed actions for private sector responsiveness to trade liberalization are presented in four categories as follows: (1) Broad policy agenda, including policies related to the macro-economy, agricultural trade, and legal security; (2) Sector specific policies, including transparent information on agriculture, technology innovation and transformation, plant and animal health and food safety, sector financing, and irrigation development; (3) Multi-sectoral policies, including infrastructure and rural services, environment, and land titling; and (4) Strengthening and defining institutional capacities, policy monitoring, and human resource development.

The Honduran Agricultural Research Foundation, formed in 1984 by USAID and the host government, filled a void created when United Brands Company (now Chiquita Brands International) ended its research program in Honduras. USAID initiated this pioneer effort by providing FHIA with a US$20 million grant to complement its initial endowment. While private sector support has been lower than government's and USAID's expectations, FHIA has played a significant role through major contributions to research and technology transfers and in the advancement of cucumber, squash, oriental vegetables, pepper, jalapeño, eggplant, and plantain exports. FHIA has worked with 5,815 producers linked to the export market to diversify crop lines and has improved production practices for numerous product lines (FHIA 2006). They maintain one of the most complete libraries and crop databases in Central America. Their highly regarded lab services cover soil, plant, fertilizer, organics, water, heavy metals, concentrated feeds, pest residue tissue culture, farm machinery, and plague and plant health analysis. FHIA is currently conducting diverse long-term research programs focused on bananas and plantains, cacao and agro-forestry, export-led diversification, and horticulture. FHIA is also implementing a program under USAID's Rural Economic Diversification program to provide technical services in the establishment of agro-forestry systems (replacement of low productivity crops in Hillsides) with small farmers and is one of the implementers of MCC's Small-scale Farmer Training program (described below).

Pan-American Agricultural School (Zamorano) was founded in 1942 with a mission to provide practical agricultural science skills to Latin Americans. Zamorano's "learning-by-doing" approach has helped it evolve and respond to current hemispheric challenges related to global competitiveness and resource sustainability. The school is widely

recognized as a regional leader in the areas of agricultural science and production, agribusiness, agro-industry, food quality and safety, integrated pest management, socio-economic development, and natural resource management. In addition to offering degree programs, Zamorano implements projects through which it has provided formal and non-formal science-based training to entrepreneurs, managers, technicians, and extension agents. Furthermore, Zamorano has conducted research and strategic analysis for IFPRI, ECLAC, and IDB regarding the implications of DR-CAFTA for Honduras. The school receives funding from the Swiss development organization, IDB, and USAID.

The Honduran Agro-exporters Federation (FPX) was founded in 1984 and funded by USAID and the government of Honduras. FPX was integral in helping expand melon and shrimp sales under the CBI. As USAID support began to wane in 1994, subsequent funding was provided by the IDB and through small grants from Japan, GTZ, the EU, Canada, and IICA. Over the past year, FPX has pursued reinvigorated efforts to strengthen its outreach and secure project funding. As a result, it is anticipating a new round of support by the Netherlands, as well as by SAG and USDA.

Rural Producer Organizations-National Small Producer Organization (ACAN) and Coordinating Council of Small Producer Organizations of Honduras (COCOCH) are among the largest of the rural producer organizations in Honduras. While they have overlapping membership, they politically represent opposite ends of the spectrum on perceptions of DR-CAFTA. Their membership consists of producers of basic grains, plantain, coffee, sugarcane, cattle, cassava and horticultural crops. ACAN's membership includes more than 13,000 producers and 340 rural enterprises, cooperatives and women's groups. The organization's leadership supports agricultural diversification and believes that improvements in the provision of technical assistance, access to market intelligence, transactions and intermediation, and rural infrastructure, will increase the benefits of the FTA. COCOCH is an umbrella organization with 10 member rural producer organizations representing approximately 340,000 individual rural producers. Forty-five percent of their membership produces basic grains for market. While they believe that increased investments resulting from DR-CAFTA will have a positive impact at the national level, they expect that the productive sector will only have a negative impact due to their lack of competitiveness against U.S. agriculture.

The Rural Business Development Foundation (FUNDER) was established three years ago as an NGO with an innovative approach to support productive activities, focused on competitiveness, equity, and sustainability. FUNDER receives its principal funding from the Netherlands, with supplemental funding from the EU, USDA, GTZ, UNDP, the government and international NGOs. FUNDER provides technical assistance related to basic organization, business plan development, technical training and start-up marketing assistance to enterprises with growth potential. Their network includes over 1,000 small and medium producers and product-oriented businesses in specialty coffee, waxed yucca, mango, chile tabasco, and high altitude vegetables, which allows them to provide services using economies of scale. Based on their methodology, the producers' commitments, and the assistance extended, enterprise sustainability is factored in for a two to three year transition phase (FUNDER 2006).

Founded in 2005 by 12 private national and international firms, goal of the Instituto Politécnico Centroamericano (IPC) of San Pedro Sula is to provide quality technical training to serve the *maquila* industry. Currently IPC offers three highly practical industry-driven training programs in clothes manufacturing, industrial electricity and maintenance, and industrial mechanics and maintenance. There is a potential to offer agro-industry related training at IPC and already the latter two certificate programs teach skills applicable to all industries. Graduates of these programs are sought after by major companies such as Gildan, Cervecería Honduras, Grupo Kattan, New Holland, Zip Buffalo. These programs are attracting increasing numbers of students, some of whom now arrive from El Salvador and Nicaragua.

Donors and international organizations. The donor community has been the major provider of development assistance to the country's rural sector. This was particularly so after Hurricane Mitch. However, in spite of decades of assistance, poverty levels have not been significantly reduced and there is a growing consensus that better impacts could have been achieved. With few sustainable initiatives, poor coordination among donor projects, and key competitive capacities are not in place, some opine that this assistance has fostered donor dependency across the sector. Nevertheless, all believed that under the appropriate construct, the new era of competitiveness-based and trade-led growth offers a new opportunity to overcome the limitations of traditional donor and project specific approaches to confront Honduras' structural problems. This section briefly describes the current portfolios of the major donors and multilateral loan programs in Honduras.

Beginning in the mid-1980s, USAID helped nurture and establish the *maquila*, melon, shrimp and other NTAEs industries, as well as their related support structures. The growth of these industries enabled Honduras to take advantage of the Caribbean Basin Initiative (CBI), especially after the currency devaluation and other economic policy reforms adopted in the early 1990s. While USAID's support was reduced during the mid 1990s, major new efforts were initiated after Hurricane Mitch (October 1998), including micro-credit and market linkage activities. As a result, significant numbers of small and medium-sized producers began exporting goods. For example, under the Agribusiness Development Center (CDA) project launched in 2000, Fintrac (2006) reported that the program it implemented provided production technology assistance to 7,382 beneficiary growers in 40 product lines, generating more than US$51 million in export sales and creating over 4,800 new jobs over five years. Building on this highly successful project, the Rural Economic Diversification (RED) Program was launched, , which also focused on assisting small and medium-sized producers to expand exports, but it was reduced in scope in 2006 because of USAID funding constraints.

Budget limits have also affected the Trade, Investment, and Competitiveness Program designed to facilitate DR-CAFTA goals through assistance to the Foundation for Investment and Development of Exports (FIDE), the Secretary of Industry and Commerce, and the Honduran National Business Council (COHEP). The Food for Progress Program, whose funds are divided between USDA (Title I) and USAID (Title II), provides funding through four NGOs to improve food production and marketing

along with nutrition and health. As a result of budget and staff reductions, USAID will not be able to continue funding technical assistance for agricultural diversification beyond the termination of the current USAID-funded RED program.

Under the Food for Progress Program, USDA contributes almost $5 million annually through SAG to fund extensive activities that allow small and medium-sized producers to take advantage of opportunities provided by DR-CAFTA. This is done via two major program activities: 1) supporting the agro-industrial sector and rural areas via a series of short-term impact activities; and 2) strengthening SENASA's capacity to develop and apply food safety norms through a series of support activities

The US$215 million MCC Compact, signed June 2005, constitutes the single largest donor assistance effort to facilitate rural diversification. While US$125.7 million is budgeted for much needed rural roads under the Transportation Project, the Rural Development Project totaling US$72 million focuses on increasing productivity and competitiveness through training in production and marketing, improving access to credit, and funding for public goods. The only component currently underway is the Farmer Training and Development component, implemented by FINTRAC in collaboration with FHIA and Zamorano. This component will assist 8,200 small and medium-sized producers of high-value fruit and vegetable crops by providing intensive technical assistance for the production side and providing buyer-farmer marketing assistance using the methodologies tested under the previous two USAID programs. This four-year effort is expected to create more than 20,000 permanent jobs (MCA Honduras 2006).

Under its Country Assistance Strategy, effective through 2010, the Bank announced in November 2006 that its priorities include macroeconomic sustainability, progress in improving governance, quality of education, and electric utility performance. The Bank's current total investment of $393 million focuses on Pico Bonito, Sustainable Forests, Forest and Rural Productivity, Land Administration, and Regional Development in the Copan Valley. Last year, the World Bank announced it would cancel Honduras' $1.3 billion International Development Assistance (IDA) debt and stated that it would provide an additional $1.3 billion in funds.

In the upcoming months, the World Bank will begin designing an important new project focusing on rural poverty. If this new project is harmonized with DR-CAFTA, it could make a significant contribution to maximizing the benefits of DR-CAFTA for the rural poor.

IDB's support of PESA was the critical initial effort designed to help frame the medium to long-term programmatic direction of Honduras's trade-driven agenda. IDB is currently the largest donor supporting the rural diversification process through its $30 million Program for Revitalization of the Rural Economy. The goal of this program is "to revitalize the Honduran rural economy with emphasis on improving the competitiveness of rural productive sectors especially the agro-industrial sector and thereby help reduce poverty" (IDB 2000). These objectives are being achieved through three mutually supportive elements: 1) formulation of national policies to promote the development of

the rural economy; 2) improvement of plant and animal health and food safety services; and 3) improvement of productive investment in rural areas in public good infrastructure and services.

In the upcoming months, IDB will begin designing a new program. If this new investment is cognizant of the opportunities and challenges of DR-CAFTA, it could make a significant contribution to maximizing benefits for the rural poor.

The G16, comprised of donor countries, development banks and the UN, was founded in 1998 following Hurricane Mitch to ensure coordination of reconstruction activities among donors and with the government. Today, the G16, through its thematic Working Groups, continues to facilitate communication among donors and the private sector and the government. The Agro-forestry Working Group aims to coordinate technical, budgetary, programmatic, and policy lines for donor and lender programs. The group agreed to use PESA's framework to facilitate program harmonization and alignment. The G16 President Pro Tempore is a G16 Ambassador, who meets bi-annually (or as needed) with the president of Honduras. Following their discussions, a summary report is prepared that includes specific action steps and recommendations. A troika of representatives, one each from an international organization, a donor country, and a multilateral bank, provides management for the Agro-forestry Working Group. The FAO, USAID, and the World Bank are the current heads of the technical secretariat with an IICA consultant functioning as the group's Secretary.

G. STAKEHOLDERS' PERCEPTIONS ON TRADE-LED AGRICULTURAL DIVERSIFICATION UNDER DR-CAFTA

A key element of the country review was meeting with key leaders and institutions engaged to assess their opinions and solicit ideas regarding the indispensable but complex process to advance trade-led agricultural diversification. Their observations and the above analysis of trends, dynamics, and domestic and international efforts, provide the framework to guide the suggested strategic interventions presented at the end of this review. Following is a summary of key themes discussed by the stakeholders.

- Outside of the government and business communities, we observed very low knowledge regarding DR-CAFTA. During the negotiation and ratification stages, there was considerable discussion and debate on the Agreement, but since ratification, little information has been available publicly. In particular, rural residents and producers are uninformed or misinformed on the final trade agreement and the particular challenges and opportunities it provides. For example, some stakeholders lamented how DR-CAFTA will undermine local agriculture, given U.S. farm assistance and support services and subsidy programs and Honduras' low-level of competitiveness.

- Agriculture and agro-industry have received national attention as potential winners under DR-CAFTA. This assumption is based on Honduras' proximity to the U.S., its success in the U.S. melon and oriental vegetable markets, as well as recent success in chili pepper and tilapia exports.

- Honduras is blessed with two regional centers of excellence, critical to the success of rural diversification, Zamorano and FHIA. Honduras is also fortunate to have a multifaceted donor support base for the agriculture sector. Past and current project activities implemented by these institutions have resulted in a modest number of producers successfully linked with buyers in ways that generate notable returns. The increased profitability experienced by the producers has ensured the long-term sustainability of some of these projects' efforts.

- Agriculture was repeatedly referred to as a particularly challenged sector. Many opine that unless major market-based support services are quickly introduced, productivity in this sector will further decline, and rural poverty and migration will rise accordingly. Furthermore, examples of the value-added, producer to processor market chains, that are essential for job and wage growth, are isolated, thereby contributing to the perception that DR-CAFTA provides few tangible benefits to the vast majority of producers.

- Considerable conversation targeted that given: 1) the long neglect the agricultural sector has received; 2) the notable high risks associated with NTAE and related agribusiness and processing investments; 3) the low competitiveness and productivity levels; and 4) the ever changing government strategies, in order to generate the serious level of sustained private sector investments a new national public-private/private-public program effort is needed. The existence of a national long-term strategy for the sector, PESA (described above and with the admitted perfections observed), differentiates Honduras from its neighbors and positions in that it builds on lessons learned from past market successes and stimulate broad-based growth in agriculture and agro-industry. However, the basic support services required to implement PESA strategy have not been institutionalized.

- The current administration's Strategic Operational Plan was supposed to build on PESA's long-term strategy for competitiveness enhancement and high-potential value chains. While numerous projects emphasizing specific product value-chains are being implemented, with the Operational Plan these are not placed in a strategic context to help respond to and improve Honduras' medium- and long-term competitiveness prospects. As currently being implemented, the Operational Plan emphasizes basic grains and food security. As mentioned earlier, this short-term strategy is receiving increased scrutiny from national and international stakeholders for the significant expansion of maize and sorghum production it has stimulated. The consensus among nearly all stakeholders, including some small rural producers, was that this initiative is a counter productive approach to a sub-sector where Honduras has no competitive advantage.

- The lack of transparency and confidence in the prevailing marketing and brokerage systems was identified as major impediments to expanding exports.

- There was a notable perception that much more emphasis needs to be placed on Honduras' internal agenda, particularly as it relates to the structural constraints that limit rural sector investment and development.

- None of the existing plans addresses specific challenges or opportunities provided by DR-CAFTA, or other trade agreements. Nor do any strategies or reports recommend how to enhance Honduras' natural and labor endowments to maximize competitiveness while generating broad-based growth. Recommendations such as these are of particular importance in shaping the 10-20 year transition period for Honduras' sensitive commodities.

- SAG has been slow to announce its DR-CAFTA-specific initiatives related to rural poverty and diversification. Stakeholders agreed that Honduras faces numerous obstacles to accelerate rural diversification, including weak institutions, lack of adequately prepared technical personnel and continued backlash from the thousands of producers of sensitive crops. The process is further hampered by the private sector's weak export promotion support structure and government's focus on the Plan for the Prevention of Corn and Sorghum Shortages.

- One interesting donor coordination mechanism for facilitating greater synergism is the G16 and its Agro-forestry Working Group, which uses PESA's framework to review, strategize, and foster cooperation among donor support efforts. The Working Group was identified as a facilitator of communication across donor initiatives but not of collaboration on project implementation.

- Public sector support services and technical capacities for the agricultural sector have eroded over the last several years, as well as the quality of technical and managerial staff. Donor support activities have been declining as well, with the notable exception of MCC. This has negatively impacted analytical and strategic planning capacities, productive infrastructure, access to market-based technology and knowledge systems, access to financial markets, adequacy of associative structures required to achieve economies of scale, implementation of value-chain structures to maximize job and wage growth while facilitating sustainability, and development of highly professional certifying and quarantine services.

H. SUGGESTED STRATEGIC INTERVENTIONS

A number of factors hinder Honduras' need to reduce poverty through increased job and wage via expanded, inter-sectoral value chains that can be best stimulated from trade-led agricultural diversification. In particular, current events and corn price fluctuations hinder the current administration's aggressive pursuit of a "DR-CAFTA agenda" and to date the government has only given the treaty limited strategic and programmatic attention. While the treaty provides a 15-20 year transition period for producers of sensitive commodities to transition to other, more remunerative products, Mexico's experience with NAFTA demonstrated that unless these complex realities are confronted early on, serious economic and social consequences are certain In spite of this, realization, expectations

are high that if appropriately facilitated, the agricultural and rural sectors will stimulate greater contributions.

An extensive literature review (see Volume I Annex A) and numerous stakeholder interviews (see Volume II Annex A) revealed that new strategic thrusts are needed to help "unleash" currently under-utilized land and labors production factors in ways that more directly increase jobs and wages. This can only be done via an extensive effort that complements directly the shared objectives central to DR-CAFTA. The U.S. government (through USAID, MCC, and USDA), other donors, technical assistance agencies, international financial institutions, and the nascent Honduran support base are each uniquely positioned to advance a strategy that will allow Honduran producers, enterprises and investors to take advantage of DR-CAFTA. Nonetheless, without GOH endorsement at the highest levels of a multi-year sector transformation process at this critical launching platform, it will not be realized. The following support activities and project interventions are offered to help advance this critically needed effort during the next year.

DR-CAFTA outreach message. There is great confusion about DR-CAFTA, particularly among small- and medium-sized producers. Confusion and misinformation will continue to expand unless reliable information is readily available. SAG widely distributed some informational material early on, but there is still a very real need for additional user-friendly material. In addition to traditional media outlets, message distribution mechanisms could include the popular municipal computer centers operated by the Honduran Council for Science and Technology (COHCIT), the network of chambers of commerce provided through FEDECAMARA, or the farmer and rancher associations that constitute FENAGH. Interviewed stakeholders agreed that real life success stories would be most palpable to rural producers and might have the greatest likelihood of inspiring change in productive activities. To this end, profiles of FINTRAC, FUNDER, and Zamorano project participants, including illustrative farm budgets and earnings, could be distributed.

Commitment to an agriculture sector strategy. The government of Honduras used a highly participatory process that included private sector, producer and civil society representatives, and relied on in-depth analysis and research to frame its long-term national vision, PESA. Appropriately adjusted PESA has been and has the potential to continue to be a strategic and institutional strengthening mechanism and facilitator of strategic stability. The G16 has, in turn, used the PESA to direct their investments, leverage resources, and expand impact across donor programs. At this moment, harmonization and disciplined strategy are critical to competitiveness and sustainability needs and for launching a hopefully productive transition period.

Enhance export promotion services. Although the Ministry of Commerce is currently developing its export promotion strategy, the support structure for Honduras's agriculture exporters is weak vis-à-vis regional competitors and changing market requirements. FPX has been successful in recent efforts to leverage investments to improve export-facilitation services, but it faces the challenge of securing its own funding from donors each year. Given the prevalence of corrupt brokerage services and the number of port

inspection problems, the scope of the problem may exceed FPX's capabilities. With an increasingly competitive market, it is worth considering if a more optimal service support structure could be supported.

Accordingly, it is recommended that a trade association expert review needs and opportunities in Honduras and in Miami and then travel with select members from FPX, FIDE, COHEP, FENAGH, and the Ministry of Commerce, to representative regional organizations such as AGEXPORT in Guatemala and the Costa Rican Food Industry Chamber. The purpose of these focused activities will be to ascertain best practices from successful export promotion models such that an institutional model for Honduras can be developed. Conversely, a strategy could be crafted for FIDE to manage export promotion services (beyond the exporters' registry) in a way that creates synergies between export and investment promotion activities and links potential investors with exporting enterprises. The current void in services forms a serious impediment to more briskly expanding export growth.

Support agricultural insurance. Honduras is repeatedly hit by severe weather shifts that produce major damage, particularly to crops and productive infrastructure. Even without these risks, agricultural investments are particularly risky due to price shifts inherent in world markets. In response to these realities, Honduras should support the work on agricultural insurance initiated by CABEI so that an appropriate system can be tested, adjusted, and launched in a shorter timeframe and/or for a broader beneficiary group.

Analytical support services. A number of key planning and analytical services are needed. Some analytical support services are public good in character, such as those undertaken in the USDA's Economic Research Service. However, Honduras has limited available experience and capacities. One significant example is the scheduled 2007 agriculture census that would provide base-line information to systematically assess resources and capital endowments, the potential for commercial operations, perceived needs to compete and gain, and farm-level impacts under DR-CAFTA. To help advance a DR-CAFTA Rural Diversification Plan for Honduras, full funding for the census needs to be secured and technical assistance provided on census questionnaire design and related analysis. The census has the potential to fill a large knowledge gap about the real state of the rural sector a well as to inform upcoming programmatic decisions by the GOH and other interested institutions.

It is vital that government develop a more systematic and strategic approach to focus national and international projects on its most competitive products. Previous studies have identified cheese processing, specialty coffee, fruit and vegetable processing, and furniture as being amongst Honduras' most competitive sectors. An in-depth analysis must include total costs for key product/market lines and comparison to main competitors. This market intelligence will allow GOH to mobilize and support producer and business responses in the most appropriate way. For example, farm budgets (from USAID's RED program, for example) could serve as a reference point to understand product competitiveness, consumer preferences and market demands in order to stimulate greater support and investments.

A technical assistance team — interacting with SAG and private sector analysts — would inform the development of needed support services.

Although SENASA was credited with some improvements, the reviewers received many negative comments regarding its professional and technical capacities. A separate review grounded in the needs identified by the USDA Regional Coordinator for Trade Capacity Building and SPS, is also highly recommended.

Promote synergies to increase market share in national and international fruit and vegetable markets. USAID's CDA and RED Programs are highly respected for their work linking local producers with suppliers. In four years, under MCC's project, 8,200 producers will also be linked into diversified value chains. Given the limited outreach systems in place, the beneficiaries of these programs will be the fundamental productive base for Honduras to compete in the increasingly expanding fruit and vegetable industry. An external review of the RED approach should be conducted to confirm its overall effectiveness and make recommendations on sustainability and broader coordination. Both USAID and MCC should encourage their contractors to employ cost-effective knowledge transfer mechanisms, for public or private sector extension service providers, to increase the scope of their programs' impact. The relevant public and private sector actors should be encouraged to participate in such activities.

The government should be encouraged to incorporate USAID's experiences into the design of the IDB and World Bank's upcoming rural development projects. USAID's methodology for stimulating maximum synergies and producer sustainability appears to be an essential element for increasing the number of competitive producers. Also, based on the significantly higher net incomes of diversified producers and the scarcity of support services, these projects should also design creative means for producer-financing of second tier support structures.

Improve human capital formation through technology access and knowledge outreach. Honduras lacks an efficient system or mechanism to improve land and labor productivity in a cost effective manner. Zamorano and FHIA are institutions whose track records demonstrate that they can contribute, if encouraged, to improved fruit and vegetable product lines. However, they seldom have been brought together within a clearly defined national strategy. Honduras needs to install a systematic process to ensure it can fulfill its growing need for trainers in technical areas such as high-end production, post harvest best practices, pests and diseases, and new food processing technologies. Cost effective access to the appropriate information and adaptive research mechanisms also needs to be introduced.

In light of the USAID's experience in diverse product lines, the growing demands for technical training, the potential of vocational schools, NGOs and private consultants to provide training, and expanded donor interest in service provision, the time is ripe to consider a technology access and knowledge outreach system from a national perspective. Analysis and recommendation must be made for a system that allows cost

effective access to and dissemination of information on cutting-edge agricultural practices and technology, and which links to international programs of excellence.

Attract investment to boost Honduras's role in the food products industry. Anticipated increase in agricultural diversification resulting from USAID, MCC, and other complementary efforts, can boost Honduras's competitiveness. Bolstering this transformation with private and public investment at this stage is critical. One low-cost possibility is to host a tour to Honduras of fruit and vegetable industry leaders such as the U.S. Producers Marketing Association, the Fresh Fruits and Vegetable Association, and their European equivalents. Visits by these senior-level representatives should be a well-orchestrated event where they can meet governmental and private sector leaders, donor officials, technical center leaders, and selected producers. This effort could draw broader international attention to Honduras' productive activities, provide market-driven technical and programmatic guidance and opinions regarding Honduras' agro-industrial potential, and generate potential sales, contract interest, and most importantly, complementary investments.

Broaden vocational training that supports rural diversification The real long-term solution to poverty is rapid growth across multiple economic sectors based on improving efficiencies in response to abilities of competing suppliers and market cost and consumer requirements. For this to occur, Honduras will not only have to adhere to the correct strategy, but maintain its competitiveness by continual investment in human capital. This vigilance has paid off for the *maquila* industry. Though designed around inexpensive labor, the industry has advanced successfully and is now investing in heightened technical training. The IPC, described above, provides key mechanical, equipment maintenance, and design training that prepares local and regional technicians to offer value-added services beyond product assembly. The IPC has generated an impressive capacity to respond to industry needs, a critical requirement for future growth. As Honduras responds to growing opportunities in non-traditional agricultural export markets, the IPC could potentially offer high quality vocational training in the food technology and food industry areas, which are essential complementary areas for facilitating rural diversification. A review of the changing needs for trained technicians by industry, projections of existing and expected human resource capacity to meet industry needs, and lastly, an action agenda for addressing identified vocational training gaps, is strongly recommended.

Improve quality assurance. Stakeholders often cited product quality as an equal, if not greater obstacle, to exporting as access to markets. The agriculture and agro-industry sectors need to better understand the value of quality. Accordingly, any upgrades in workforce or product quality should be properly marketed to target export markets. The Assessment Center for the Development of Human Resources (CADERH) is expected to receive accreditation as a labor certification and quality assurance center by late 2007. CADERH has already begun working with key support institutions such as FIDE to identify strategic labor positions within key sectors for which it will provide certification. CADERH may also be in a capacity to assess the quality of training institutes to ensure that resources are being committed to those centers that are most responsive to helping

Honduras to better compete in an increasingly globalized economy. Support to CADERH or other such institutions is vital, as they will provide internationally recognized quality seals to Honduran producers and firms, which in turn will increase their recognition in the global marketplace.

Diplomatic cooperation for an integrated agricultural diversification and food security. Comparable international experiences demonstrate that safety net programs may be necessary to help facilitate the difficult transitions some producers will confront but these must be crafted so that they catalyze diversification and minimize dependence. President Zelaya took an important first step to address essential food security issues that some small and medium-sized producers will confront as they attempt to gradually introduce more remunerative higher risk diversification activities envisioned by DR-CAFTA. The higher productivity maize varieties and the structured and targeted technical assistance provided under the *Plan Maíz* program have the potential to reduce the portion of arable land previously required to meet family food security needs. The resulting excess land may be utilized to engage in more profitable activities (i.e., agro-forestry, livestock, or fruits and vegetables) that also generate more value-added employment. The U.S. government and other donors, have a considerable resource base that can help advance agricultural diversification efforts in a way that is complementary to the Honduran government's programs. We strongly recommend a coordinated effort. Based on Mexico's experience with corn subsidies, as is, the government's *Plan Maíz*, has the potential of not facilitating the transition of out corn.

Facilitating role for the CAFTA-DR Trade Capacity Building Committee. The CAFTA-DR Trade Capacity Building Committee has a mandate to help advance the transformation process faced by the parties to the agreement. This committee is well-positioned to be a facilitator across a broad range of actors including public sector officials (trade, agriculture, finance), the private sector, and other donors. To fulfill this role, the committee may wish to establish a sub-committee to focus on advancing trade-led agricultural diversification by providing a coordinating/facilitating mechanism to help the CAFTA-DR countries and donors to mobilize support for achieving the broad objective and sustaining momentum toward meeting it. To help sustain this sub-committee, it is recommended that each party designate an appropriate official representative to the sub-committee, with the authority to coordinate domestically among public sector officials and the private sector.

Donor coordination. A considerable amount of technical and financial support will be required for the agricultural diversification process to be successful. Intensified coordination among donor agencies will help sustain focus on the need for increased funding support and see that resources are invested for maximum impact on accelerating trade-led agricultural diversification. In some cases, there are broad in-country donor coordination processes underway. The Trade Capacity Building Committee, in close coordination with in-country USAID officials is well-positioned to facilitate such coordination in support of efforts by the countries to diversify their agricultural sectors. To the degree that both the Government of Honduras and the United States can accelerate fund disbursement and program implementation, as well as influence the design of pending programs with other donors, the sooner the process of trade-led agricultural

diversification can be advanced. The previously mentioned strategic plan could serve as a tool to harness and shape future assistance efforts.

Prioritizing benefits under CAFTA-DR. Given the vital importance of CAFTA-DR in the region, upcoming and/or potential donor support, and the importance of introducing the rural diversification initiatives early, we propose the creation of a regularly conducted bilateral review in connection with the annual meeting of the Commission of the CAFTA-DR Agreement.

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J. LIST OF INTERVIEWEES

Honduras		
Name	**Title**	**Affiliation**
Public Sector		
Hector Hernández	Minister	Ministry of Agriculture and Livestock (SAG)
Cesar Noé Pino	Advisor	SAG
Lizardo Reyes	Advisor	SAG
Guillermo Alvarado	Advisor	SAG
Roberto Villeda	Advisor	SAG
Hugo Castillo	Vice-Minister	Ministry of Finance (SEFIN)
Mario Martínez	Director for Economic Integration and Trade Policy	Ministry of Industry and Commerce (SIC)
Ricardo Arias	Vice-Minister	Presidency
Virgilio Umanzor	Commissioner	National Competitiveness Program (PNC)
Roland Valenzuela	Minister/Director	National Sustainable Rural Development Program (PRONADERS)
Martin Ochoa	Director	MCC
Daniel Meza	Agricultural Advisor	MCC
Ivette Castillo	Director	
Private Sector		
Mario Canahuati	President	Honduran Business Council (COHEP)
Armando Urtecho Lopez	Manager	Legal Advisory Service, COHEP
Victoria Asfura	Executive Director	Center for Economic and Social Research (CIES/COHEP)
Roy Daniel Mendieta	Executive Director	Federation of Honduran Chambers of Commerce (FEDECAMARAS)
Maribel Espinosa	Executive Sub-Director	FEDECAMARAS
Vilma Sierra	Executive President	Fundación para la Inversión y Desarrollo de Exportaciones (FIDE)

Honduras		
Name	**Title**	**Affiliation**
Norman García	Director	Research Center for Economic and Social Proposals Centro de Investigación para Propuestas Económicas y Sociales (CIPRES/FIDE)
Mario Nufio	Member	Board of Directors, COHEP
Medardo Galindo	General Manager	Honduran Agro-exporters Federation (FPX)
Santiago Ruiz	President	Honduran National Agriculture and Livestock Federation (FENAGH)
Multilateral and International Institutions		
Dante Mossi	Chief Economist	World Bank
Carlos Gallegos Kattan	Development and Environment Officer	World Bank
José Villatoro	Agricultural Specialist	IDB
Pablo Rodas		Central American Bank for Economic Integration (CABEI)
José Deras	Agribusiness Specialist	CABEI
Marco Tulio Fortín	Director	IICA
Juana Galván	Regional Specialist	Policies and Commerce Unit, IICA
NGOs, Academia, Other		
Adolfo Martínez	Director	Fundación Hondureña de Investigación Agrícola
Miguel Angel Bonilla	Executive Director	Fundación para el Desarrollo Empresarial Rural
Kenneth Hoadley	Dean	Pan-American Agricultural School
Mario Contreras	Dean, Planning	Pan-American Agricultural School
Martin Schwarz	Director	Pan-American Agricultural School
Martha Ivon Romero	Director	Center for Training and Development of Human Resources (CADERH)
Lourdes Maradiaga	Manager of Operations	CADERH
Rigoberto Pérez	Secretary General	Coordinating Council of Small Producer Organizations of Honduras (COCOCH)

Honduras		
Name	**Title**	**Affiliation**
Martín Cardosa	Director General	National Small Producer Organization (ACAN)
Luisa García	Head of Education	Instituto Politécnico Centroamericano
Emilio Murillo	Coordinator, Manufacturing	Central American Polytechnic Institute
Helmut Schnepf	Head of Industrial Training	Central American Polytechnic Institute
U.S. Government		
Patrick Dunn	Economic Attaché	U.S Embassy
Peter Newman	Economic Section	U.S Embassy
Jonathan Wingle	Director	MCC
Carol Elwin	Sub-Director	MCC
Ana Gómez	Agricultural Specialist	USDA
Roberto Cabezas	Chief of Party	Integrated Management of Environmental Resources Program (USAID/MIRA)
José Guerrero	Deputy COP	USAID/MIRA
Peter Dickrell	Director/COP	USAID/Rural Economic Diversification Program (RED)
Andrew Medlicott	Director/COP	MCC/Farmer Training Program (EDA)

SECTION 8 NICARAGUA

ACRONYMS

ACORDAR	Alliance to Create Opportunities for Rural Development through Agribusiness Relationships
ADC	Austrian Development Cooperation
ALBA	Bolivian Alternative for Latin America and the Caribbean
AMCHAM	American Chamber of Commerce
APEN	Non-Traditional Producers and Exporters Association of Nicaragua
BANDESA	National Bank for Agricultural Development
BCN	Banco Central de Nicaragua
CADIN	Nicaragua Chamber of Industry
CAFTA-DR	United States-Central America-Dominican Republic Free Trade Agreement
CBI	Caribbean Basin Initiative
CENTROLAC	Lácteos de Centroamérica
CETREX	Exports Processing Center
CIPRES	Center for Rural and Social Promotion, Research, and Development
COSEP	Supreme Private Sector Council
COSUDE	Swiss Development Cooperation
DGPSA	General Direction of Plant and Animal Health
DRA	Direct Rates of Assistance
EARTH	Escuela de Agricultura de la Región Tropical Húmeda (University)
FSLN	Frente Sandinista de Liberación Nacional
FTA	Free Trade Agreement
FUNIDES	Nicaraguan Foundation for Social and Economic Development
GDA	Global Development Alliance
GDP	Gross Domestic Product
HIPC	Heavily Indebted Poor Countries
IARC	International Agricultural Research Center
IDB	Inter-American Development Bank
IDR	Rural Development Institute
IICA	Inter-American Institute for Cooperation on Agriculture
INCAE	Central American Business Administration Institute
INEC	National Institute of Statistics and Census of Nicaragua
LAC	Latin America and the Caribbean
MAGFOR	Ministry of Agriculture, Livestock, and Forestry

MARENA	Ministry of the Environment and Natural Resources
MCA	Millennium Challenge Account
MCC	Millennium Challenge Corporation
MDRI	Multilateral Debt Relief Initiative
MIFIC	Ministry of Development, Industry and Commerce
MINSA	Ministry of Health
NAFTA	North American Free Trade Agreement
NICAEXPORT	Nicaraguan Export Promotion Center
NTAE	Non-Traditional Agricultural Export
OAS	Organization of American States
OIRSA	Organismo Internacional de Sanidad Agropecuaria
OYB	Operating Year Budget
PAHO	Pan American Health Organization
PEF	Programa Económico-Financiero 2007-2010
PFID	Partnership for Food Industry Development
PND	National Development Plan
PPP	Purchasing Power Parity
PROCAFTA	USAID Support to the Implementation of CAFTA-DR in Nicaragua
PRORURAL	Rural Development Programme
UN-ECLAC	United Nations Economic Commission for Latin America and the Caribbean
UPANIC	Nicaraguan Agricultural and Livestock Producers Union
USAID	United States Agency for International Development
USDA	United States Department of Agriculture

SECTION 8 NICARAGUA

A. INTRODUCTION

Located at the midpoint of Central America, Nicaragua enjoys the largest and most diverse arable land base among its regional economic competitors. At the same time, Nicaragua is the second poorest country in the Latin America and Caribbean region and possesses the region's most de-capitalized rural sector. In this new era of trade-led economic growth, it faces both unprecedented opportunities and formidable challenges.

Over the last 25 years, Nicaragua has seen several major policy and structural shifts at the national government level, and has entered into numerous bilateral and multilateral free trade agreements. In today's increasingly competitive global economy the country's rich land endowments and highly productive and low-cost labor offer significant advantages for rapidly reducing poverty through strengthened value chains and expanded inter-sectoral linkages that stimulate new jobs and better wages. Generally speaking, however, the country's rural sector, and particularly its agricultural sector, is poorly positioned to seize upon this opportunity to stimulate more robust, broad-based growth.

To better comprehend and respond to this admittedly complex task of reducing poverty via expanded trade, this review presents Nicaragua's historical macroeconomic context, key economic indicators, and rural sector dynamics in the context of trade-led agricultural sector diversification. It also includes an overview of domestic and international efforts to facilitate rural diversification, and national-level stakeholder perspectives regarding this rural diversification process. Based on the extensive analysis of primary and secondary data and reports and numerous interviews with key stakeholders, the review concludes with suggested strategic interventions to help national leaders in the public and private sectors and the donor community to advance trade for the benefit of small and medium producers, enterprises, and the associated rural workforce.

B. MACROECONOMIC OVERVIEW

From the 1950s until the mid 1970s, Nicaragua had one of the greatest agricultural sector growth rates in LAC (IDB 1964) and the fastest growth in GDP in Central America, as strong cotton, sugar, and beef exports drove the economy upward (Laird 1976). However, income distribution remained skewed, and this expansion did not translate into increased social equity (Bathrick 1981). In response to increasing discontent in the general populace, civil war broke out in 1978, bringing the Frente Sandinista de Liberación Nacional (FSLN) to power in 1979 following the ouster of former President Anastasio Somoza Debayle. With the FSLN in power, the 1980s saw increasing social collapse and negative growth fomented by inappropriate policies, prolonged civil strife, disruptive land reform, record deficit spending and inflation, and a weakened institutional base and political support structure. The election of Violeta Barrios de Chamorro in 1990 saw systemic changes and the gradual establishment of economic stability as new market-

driven reforms were launched. These reforms included the privatization of established state enterprises (energy, banks, and telecommunications) and the introduction of fiscal discipline measures leading to significant public sector downsizing. As a result of this downsizing, however, the country saw a widespread reduction in government services and policy confusion.

In the agricultural sector — where three decades of import substitution established the state presence at all levels, from production to marketing — government policies during the 1980s fostered a directed and pervasive service structure. With major fiscal reforms launched in 1990, massive institutional realignment ensued across all sectors, but particularly in the agricultural sector. The state agricultural credit institution, BANDESA, was privatized, while the government extension service was drastically reduced, with service provision essentially left to the private sector. According to a recent World Bank review, "the immediate consequences of this reorganization of the Ministry of Agriculture's structure for research and extension resulted in personnel cuts from 3,000 to 1,000 [and] the lack of concomitant institutional leadership led to the disarticulation of this system." (World Bank 2007a).

At the same time, the structural adjustment process opened up commercial and agricultural imports that had previously been restricted under the import substitution era, and average tariffs fell from 43.2 percent in 1990 to 5.2 percent in 2000 (MIFIC 2007). Furthermore, Nicaragua began to benefit from duty free access to the U.S. for a large number of products exported to the United States under the Caribbean Basin Initiative. Over time, the Government of Nicaragua (GON) entered into several trade arrangements, including partial trade protocols with Colombia and Venezuela, and FTAs with Mexico, Panama, and the Dominican Republic. More recently, Nicaragua began to implement the United States-Central America-Dominican Republic Free Trade Agreement (CAFTA-DR) that also includes the participation of El Salvador, Guatemala, and Honduras, with the treaty's entry into force pending for Costa Rica. At present, Nicaragua has several additional trade agreements currently under negotiation, specifically with Canada, Chile, Taiwan, and the European Union, and a cooperative agreement with Venezuela under the Bolivarian Alternative for Latin America and the Caribbean (ALBA) (NICAEXPORT 2007). In this relatively short period, Nicaragua has become one of the region's most open countries to trade.

Furthermore, during this period of political and economic instability, the established macroeconomic framework was further refined with the support of major donors to include institutional and structural reforms undertaken through the Presidential Competitiveness Commission. Direct foreign investments have increased from $185.6 million in 2004 to an estimated $271 million for 2006 (GON 2007) and the administration of Daniel Ortega that took office in January 2007 has devoted major attention to social reforms targeted to the poor, to include the cancellation of school and hospital fees and the announcement of the *Programa Productivo Alimentario Hambre 0*[1].

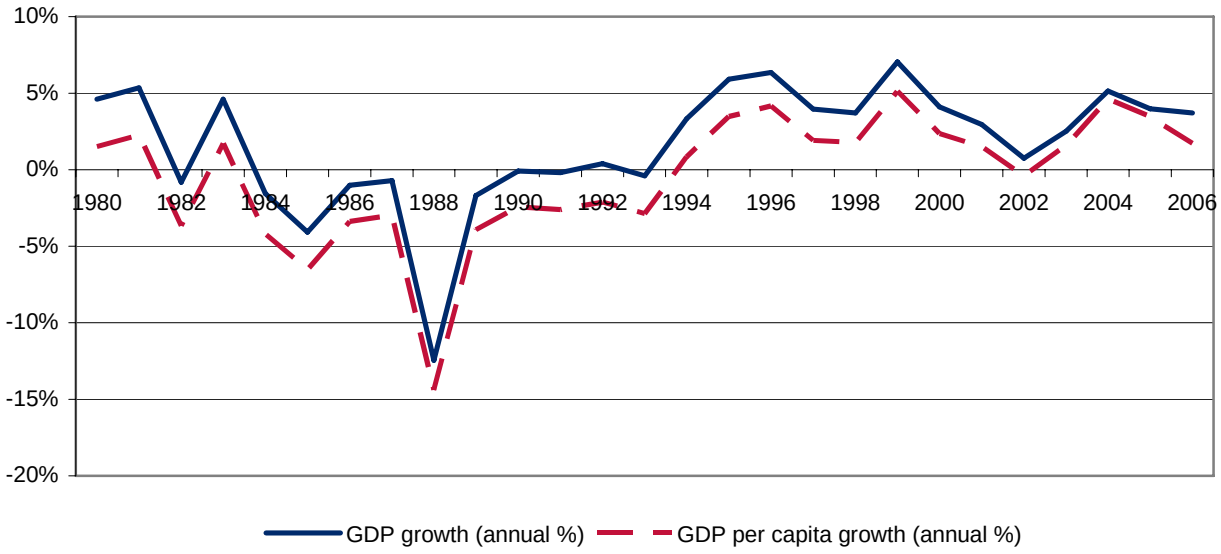
[1] This program, discussed in more detail below, is expected to provide rural families with productive capital in the form of farm animals, seeds, and limited farm equipment, training in the nutrition, management, and health of livestock, and integrated farm management.

At the same time there has been ongoing outreach to the business community and increased attention on adjusting the economic policy framework to directly reduce poverty while enhancing growth at the same time. The just-announced *Programa Económico Financiero 2007-2010* speaks to poverty reduction and economic growth within a stable macro economic environment, while at the same time expanding free trade agreements and advancing the inherent advantages that CAFTA-DR and other FTAs provide (Ibid.).

C. KEY ECONOMIC INDICATORS

Gross domestic product trends. Graph 1 demonstrates the depressed and highly volatile economy observed in Nicaragua during most of the past 25 years, with an average GDP growth rate of 1.68 percent for the period, the region's lowest. More recently, however, in comparison with other countries in Latin America, Nicaragua has one of the highest rates of foreign direct investment as a percentage of GDP, due in large part to high levels of privatization (Harberger 2007). These contrasting trends imply significant opportunities for growth in the context of an economy that is still recovering from the volatility of the recent past.

Graph 1: GDP and GDP Per Capita Growth, 1980-2006 (Annual %)



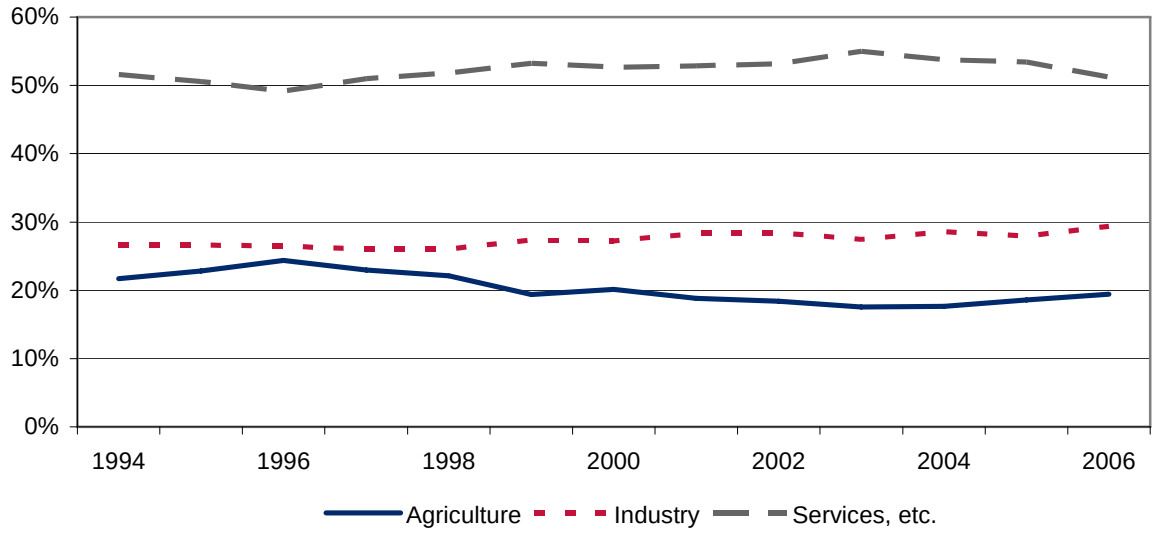
Source: World Bank 2007d

The severe economic downturn observed in the 1980s — sparked by civil war, inappropriate macroeconomic policies, and adverse external shocks — did not begin to stabilize until 1990. Major reforms were introduced shortly thereafter, but the economy's response was slow to take hold due to the existing import substitution regime and economic structural imbalances. By 1994, however, annual GDP growth exceeded 3 percent, and through 2006 GDP growth averaged more than 4 percent annually, with 2002 being the only year with growth of less than 2.5 percent (World Bank 2007d). Recently, however, the president of the Central Bank advised the nation that the projected

GDP growth for 2007 would be 3.9 percent rather than the 4.2 percent that had originally been forecasted.

As Nicaragua builds upon this period of economic stability within a relatively new and uncertain economic paradigm, emerging inter-sectoral dynamics provide important signals. Graph 6.2 presents recent sector-level trends.

Graph 2: Sector Contributions, Value Added, 1994-2006 (% of GDP, Current US$)[2]



Source: World Bank 2007d
Note: Data prior to 1994 is not available.

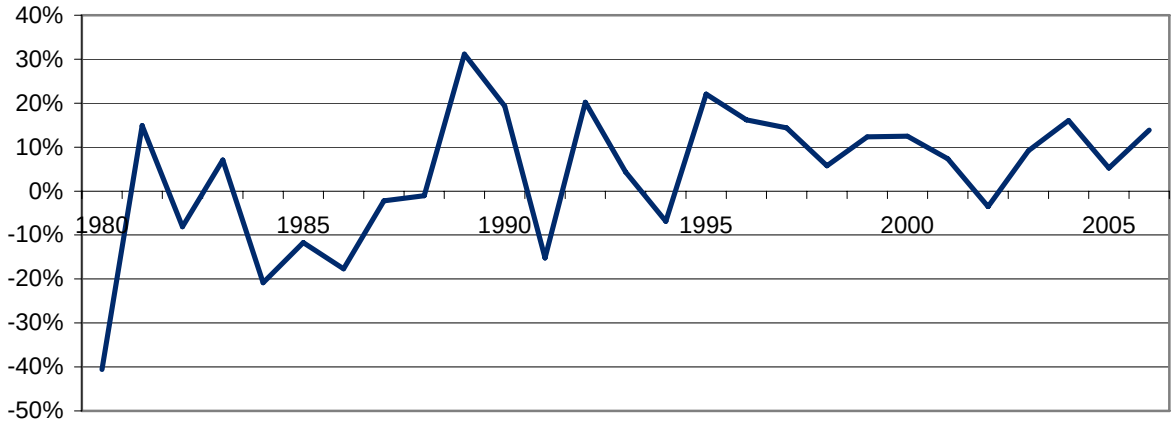
First, while the service sector in Nicaragua's is its largest and generates the most remunerative jobs, its share of GDP (in current US$) has declined since 2003. Since 2000 industrial sector growth has been flat. Paradoxically, the agricultural sector, which generates the least remunerative wages and includes historically declining primary product subsectors (basic grains and pulses, livestock, forestry, and fish products) began over the same period to grow as a percentage of GDP, as observed in Graph 6.2. While this period is too short to indicate a historical trend, it does mirror structural issues that the other CAFTA-DR countries experienced over a longer period. These sectoral trends, nonetheless, do not reflect important value-chain relationships that link agricultural primary products with key industrial subsectors. Significantly, according to Central Bank statistics the food, beverage, and tobacco subsector comprised 64 percent of the industrial sector's value-added production in 2006 (BCN 2007). This growth in value-chain-oriented manufacturing and production demonstrates the significant expanded economic multipliers provided by a dynamic and responsive trade-led agricultural diversification

[2] The World Bank's World Development Indicators did not have data for Sector Contributions to GDP between 1980 and 1993, which corresponds to the tumultuous civil war period.

process. In the context of the expanding number of FTAs, expanding and deepening this agricultural processing subsector forms a key national priority.

Trade expansion. Graph 3 reflects the evolution of Nicaragua's dynamic and decreasingly volatile export growth trends. Since 1989, exports grew at an average rate of 10.3 percent, the highest average rate of export expansion observed in the region for the period.

Graph 3: Exports of Goods and Services, 1980-2006 (Annual % Growth)

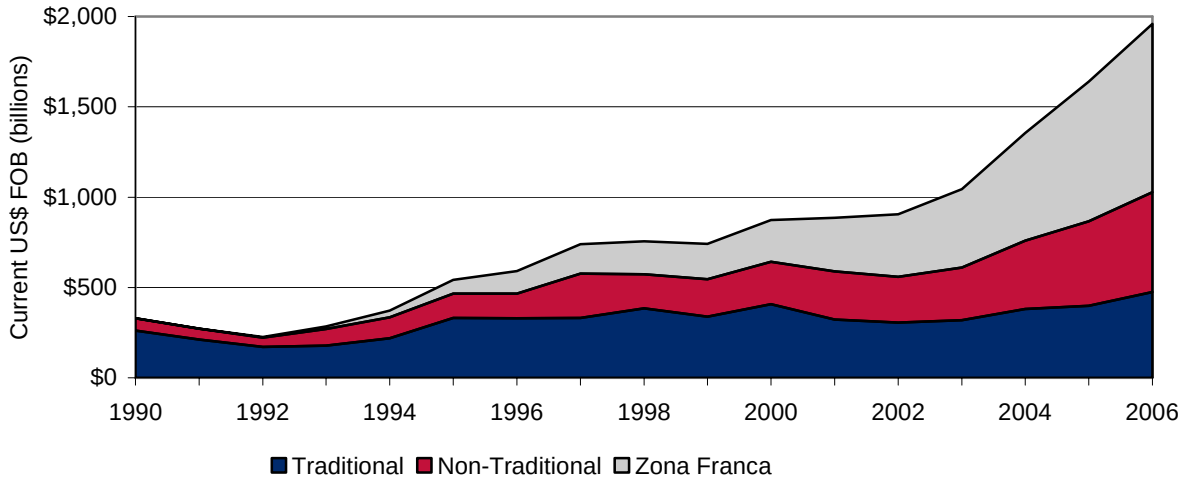


Source: World Bank 2007d

Until the mid-1990s, Nicaragua's economic development was closely tied to three traditional export commodities: coffee, sugar, and cattle. However, as the business and export climate improved, Nicaragua's economy stabilized and the country increased and diversified its export base. Graph 3 reflects the consequences of Nicaragua's heavy reliance on traditional agricultural commodities, which are constantly subjected to global supply and demand adjustments. In the mid-1990s, exports became more diversified and thereby less subject to major price shifts, as noted by the reduced volatility in export growth shown in the graph. In fact, in 2006, Nicaraguan exports surpassed $1 billion[3] for the first time since 1978.

[3] *Zona franca* exports — worth over $500 million in 2006 — are tracked separately from other exports and are thus not included.

Graph 4: Exports by Major Category 1990-2005

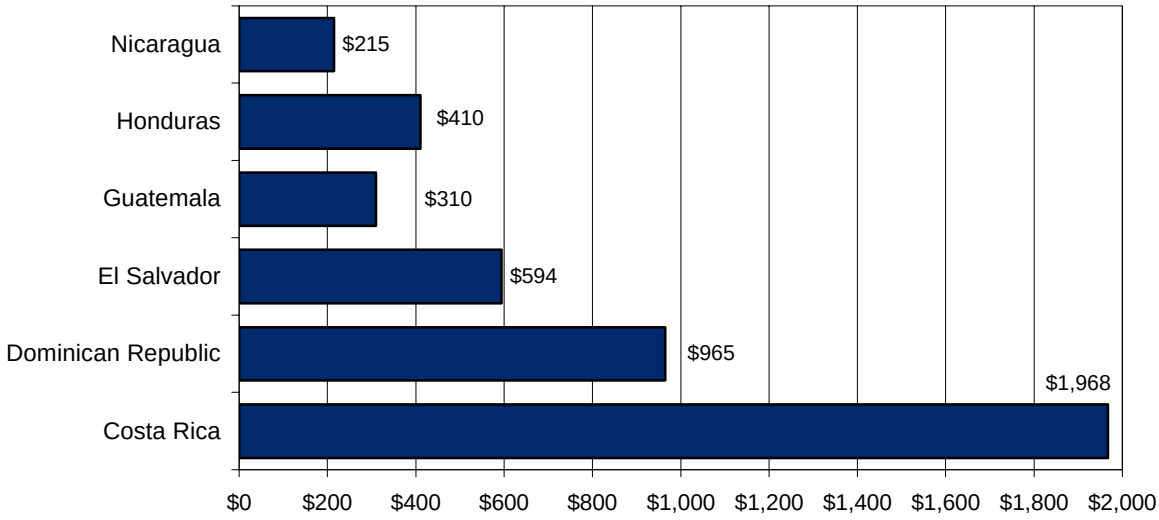


Source: BCN 2007, BCN 2007a, CETREX 2007, NICAEXPORT 2007
Note: Traditional exports are: coffee, cotton, sesame seed, sugar, molasses, beef (both cut meat and live animals), shellfish (wild-caught shrimp and lobster), bananas, gold, and silver. In 2004, traditional exports were no longer tracked by the BCN by law, such that disaggregated data for traditional and non-traditional exports for 2004 were unavailable. Data for this year were extrapolated for this graphic based on prior and subsequent year data in conjunction with available data for total exports.

The diversification of the export economy from traditional to *zona franca* and nontraditional exports can be seen in Graph 4. Starting in 1995 the value of traditional exports has remained relatively stable, while at the same time there was rapid growth in *zona franca* and nontraditional exports. By 2002, both had surpassed traditional exports (Vodusek, et al. 2007).

Although these are impressive advances for the important and ever-evolving export economy, further analysis reveals additional structural challenges. When 2006 exports are adjusted to constant 1994 dollars, the resulting export value is 50 percent of that achieved in 1978, while in per capita terms export value is 74 percent less than that of 1978 (FUNIDES 2007). Of additional concern is that Nicaraguan exports are significantly lower on a per capita participatory basis than any other country in the Americas (see Graph 5), indicating low-value-added transactions and limited inter-sectoral linkages (Vodusek, et al. 2007).

Graph 5: Average Exports, Per Capita, CAFTA-DR Countries, 2000-2005 (Constant 2000 US$)



Source: World Bank 2007d

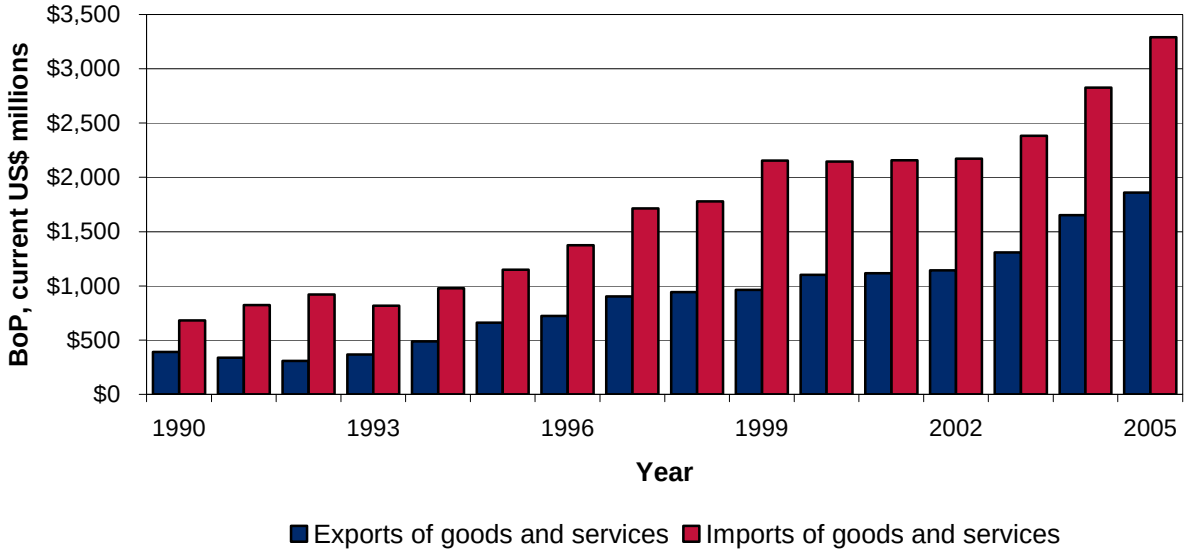
Recent trends, however, have shown growth in exports of primary nontraditional and some traditional products that has generated improved growth in response to increased producer prices and more labor intensive, value-added opportunities. While during the 1970s "traditional" agricultural and livestock products formed 60 percent of Nicaragua's export base, by 2006 these products comprised less than 40 percent of exports despite an increase in total agricultural sector exports. Non-traditional agricultural and livestock exports have grown such that in 2006 the combination of these with traditional exports makes up 58 percent of total national exports (APEN 2007). Nevertheless, as shown in Graph 4, this process is seriously constrained due to Nicaragua's heavy reliance on primary agriculture, particularly as compared with its Central American competitors.

This inter-sectoral diversification of agriculture-based exports is essential to fostering stable and sustainable growth in overall exports. According to MIFIC, this subsector (along with textiles, clothes, and wood products) generates the greatest economic impact through the significant participation of small and medium enterprises in the production of manufactured products such as processed foods and beverages using primary product inputs (MIFIC 2004). In fact, when industrial sector exports — which currently make up 21 percent of the national total — are disaggregated by sub-sector, 73 percent are a result of agricultural product transformation, demonstrating the nascent but growing prospects found in this sub-sector (BCN 2007a). These market-based, inter-sectoral activities require sophisticated production, post-harvest, and processing tasks and a variety of value-added marketing, financing, and shipping services that generate higher producer prices and stimulate salary and job growth along the chain.

As presented in Graph 6, Nicaragua's trade deficit has grown significantly in recent years, due in part to the country's increased openness to external trade, as well as to rapid growth in remittances that greatly stimulate consumer purchases. In fact, between 2000

and 2005, remittances grew by 12.4 percent annually, so that in 2006, remittances exceeded $600 million (BCN 2007). This growing trade deficit is further exacerbated by increased petroleum prices due to the absence of alternative energy sources and the increased demand for energy associated with economic growth. The trade deficit has expanded to the point that imports have more than doubled expanding export levels since 1997, as shown in Graph 6.6. From a regional perspective, Nicaragua had a positive trade balance with the United States ($561 million) in 2005, while it had negative trade balances with Central America ($413 million), Asia ($387 million), and the European Union ($5 million) during the same period (Vodusek, et al. 2007).

Graph 6: Trade Balance Trends 1990-2005



Source: World Bank 2007d

Poverty. According to the World Bank's poverty study from 2003, 45.8 percent of the nation's total population of 5.2 million in 2001 lived below the poverty line, while 15.1 percent were living in extreme poverty. This represents a slight improvement over 1993, when 50.3 percent of the population was in poverty and 19 percent in extreme poverty (World Bank 2003b). While these slight improvements merit recognition, real GDP growth in constant 1994 dollars is only fractionally above the level observed in 1978, due in part to the conflict, counterproductive policies, and political discord in the recent past (FUNIDES 2007). For the rural sector, poverty declined from 76.1 percent in 1993 to 68.5 percent in 1998 and 64.3 percent in 2001 (World Bank 2003b). Even so, in real terms, rural poverty headcounts remain more than double the rate observed in the urban sector for the same periods (World Bank 2007b). However, according to the new administration's recent economic policy review, and as provided from a comprehensive household survey, overall poverty levels actually increased from 45.8 percent in 2001 to 48.3 percent in 2005 (GON 2007). When adjusting income for purchasing power parity (PPP), Nicaragua also had the highest percentage of its population (80 percent) earning

less than $2 per day[4] in 2001 compared with the most recent results for the rest of Central America (World Bank 2007b). Furthermore, due to growing desperation, approximately 10 percent of Nicaragua's population lives outside of the country, and between 20,000 and 30,000 people leave annually, principally to Costa Rica and the United States for work (Ibid.).[5]

D. RURAL SECTOR DYNAMICS

These trends set the stage for the particularly daunting challenge of expanding job and wage growth through trade-led agricultural diversification. Decades of import substitution structures and limited levels of sustained, demand-driven responses over the last 25 years have left their mark. Nicaragua has experienced major de-capitalization in financial, human, technological, infrastructural, and institutional terms due to decades of rural strife, major titling and land reform and restructuring, and inappropriate policies (Vodusek, et al. 2007; FUNIDES 2007). In the rural sector, there are 200,000 farms and 100,000 livestock enterprises (INEC 2002), with an average of six persons per household, totaling approximately 1.8 million persons, or 34 percent of Nicaragua's population (MAGFOR 2007). The sector generates around 20 percent of the nation's GDP, employs the largest proportion of the working population (38 percent), and is the source of 65 percent of national exports (Ibid.). Although Nicaragua's agricultural sector forms the most important element of the rural economy, compared to its regional and global competitors, the country's land and labor endowments are inappropriately positioned to stimulate more robust national growth. The following discussion summarizes some of the most important underlying issues supporting this conclusion.

High and growing levels of agricultural income among the poor impede meaningful wage growth. Economic development is almost universally understood to result from growth away from dependence on the primary production sector, embodied in traditional agriculture, toward more value-added activities associated with the manufacturing and service sectors. According to the World Bank's living standards measurement study (LSMS) conducted in 2001, there are few other income sources for the poor beyond enterprise-specific farm income (cited in Bussolo & Niimi 2005). "The rural poor earn on average 40 percent of their income from the farm sector, and this is a very high share considering that, once 36 percent of income is attributed to transfers and auto-consumption, the remaining share of income non-directly related to agriculture is only 24 percent" (Ibid.). This has been further exacerbated by real job growth in this least

[4] Population below $2 a day is the percentage of the population living on less than $2.15 a day at 1993 international prices. As a result of revisions in PPP exchange rates, poverty rates cannot be compared with poverty rates reported previously for individual countries.

[5] Estimates of poverty and extreme poverty for a given country can vary depending on source and methodology. Rural poverty estimates are particularly challenging. For this study, to capture the broad range of respected international and national institutions dealing with poverty studies so that maximum sources could be employed, various lead sources were consulted. At the same time however, in order to present standardized cross-country comparisons, UN-ECLAC data was chosen and presented in Annex C, Tables C.1 and C.2. As noted therein, for Nicaragua in 2001, as a percentage of total population rural poverty stood at 77.0% and 55.1% of the population lived in extreme poverty.

remunerative sector such that from 2000 to 2003 agricultural sector jobs increased by 2.6 percent, by 1.6 percent for 2003-2004, and by 4.5 percent in 2004-2005 (INEC 2006). Basic agricultural sector salaries are the lowest on average in the region, and in Nicaragua, the average agricultural salary covers less than 30 percent of basic family food costs (BCN 2006). These pervasive low wages — the lowest in the region — have suppressed meaningful national-level wage growth.

Rural sector is highly concentrated in basic grains, lower-level value chains associated with basic grains, and other traditional export subsectors. Most of Nicaragua's rural poor obtain their incomes from agricultural, livestock, and domestic food production (Vodusek, et al. 2007). Eighty percent of farm enterprises are between 0.5 and 50 *manzanas*[6] and produce roughly 90 percent of the country's maize, beans, sorghum, and sesame (Taylor, et al. 2006). Although this large basic grains subsector is engaged in comparatively low value-added activities (except in the now expanding bean export market), it generates one-third of the agricultural sector's total value, despite traditionally low farm gate prices (BCN 2006). Except for meat and specialty coffee, Nicaragua's traditional exports have done little to stimulate new value chains. Compared with the other CAFTA-DR countries, Nicaragua has seen only limited advances in promoting nontraditional agricultural exports (NTAEs), particularly in fruits and vegetables, where its regional peers have observed a notable expansion (Taylor, et al. 2006). The limited growth in NTAEs has been the result of various factors, including enterprise dispersion, high land fragmentation, uncertain ownership and generally low levels of land productivity. Recently, however, this trend has shifted, and increasing discussion is being placed on developing NTAE value chains, with qualified success.

Nicaragua's success in these more dynamic pursuits has been hampered by the country's high levels of poverty, low factory productivity and risk tolerance levels, and the limited private and public institutional capacities that combine to constrain enterprise shifts. The country's limited level of productive market-oriented linkages is directly related to the comparatively low level of per capita exports. CAFTA-DR countries as a whole averaged 3.46 times as much in exports per capita as Nicaragua from 2000 through 2005 (World Bank 2007d).

Limited emergence of more remunerative value chain enterprise opportunities. While various nontraditional agricultural export (NTAE) value chains — such as cheese, beans, melons, sesame, onions, and others — were initiated in the mid-1990s, expansion did not occur until the late 1990s. By then, however, only four product lines experienced sustained growth: cacao grew six-fold and cheese four-fold, while beans and yucca both doubled (Vodusek, et al. 2007). This albeit limited roster has generated increased farm incomes for a comparatively small number of small farmers, plus additional farm wages and employment and downstream value-added activities and jobs.

[6] One manzana equals 0.70 hectares.

Growing preferences for Nicaraguan beans in Central America, Mexico, and the United States are generating considerable sales and expanding production, product sorting, and packaging agro-industrial linkages. They are also stimulating a base for higher-tech seed multiplication and plant genetics activities that are further linked to Nicaragua's service sector. Bean production alone — including product sorting, processing, packaging and related off-farm jobs — employs 211,000 persons, surpassing coffee's seasonal workforce of 200,000 and those working in the livestock subsector (188,000). In addition, since the mid-1990s, the dairy products subsector has expanded production of yogurt and fresh and processed cheeses at the fastest combined rates (excluding products with an extremely low start-up base) of any traditional or nontraditional product on the market. For the three product lines, they have shown average increases of 32 percent, 62 percent, and 125 percent, respectively, from 1993 to 2005 (Ibid.). Unfortunately, most of these nontraditional and traditional products are also robust value-added activities among Nicaragua's direct competitors, El Salvador in particular (Ibid.).

For manufacturing sector exports, the food, beverages, and tobacco subsector (which includes meat and fish, sugar, dairy, industrialized food products, beverages, and tobacco) was the most important, and showed steady growth during the last five-year period. This sub-sector — which used Nicaraguan primary products as inputs for the most part — generated more than 50 percent of the sector's value-added contribution. Since 1993, it is the only subsector to have generated sustained growth, with the exception of textiles, clothing, and leather (BCN 2006). The other sub-sectors in manufacturing all experienced long and large contractions (Bussolo & Niimi 2005).

Very low productivity levels constrain Nicaragua's competitiveness. As Nicaragua continues to open itself to trade, its economic growth will be linked to a broader range of product lines that stimulate inter-sectoral linkages within a domestic, regional, and international competitive structure. In this context, particular attention must be given to the country's significant land and labor endowments and how they are employed toward growth. For example, 80 percent of Nicaragua's arable land is devoted to basic grains that generate 30 percent of agricultural GDP, while 20 percent of the land is devoted to export crops that constitute 50 percent of the sector's GDP and generate considerable inter-sectoral linkages (World Bank 2003a). Nicaragua's arable land base is the region's largest, most diverse, and most fertile, blessed with advantageous patterns of precipitation. However, land ownership is highly fragmented and insecure, and land prices are the lowest in the region. The economic effect of Nicaragua's low wages in the agricultural sector has already been discussed, and average basic educational levels of only 4.6 years and an illiteracy rate of 30 percent further limit the country's competitiveness (World Bank 2005).

Given the understandably complex scenario evolving in Nicaragua, and in an effort to assist Nicaraguans to better understand the special opportunities and challenges they confront, USAID/Nicaragua contracted Professor Arnold Harberger to examine GDP trends, economic growth and competitiveness realities, and regional cost comparisons. His research places utmost importance on improving total factor productivity levels, or what he terms "real cost reductions." In this analysis, Harberger employed an extensive

database to compare GDP growth rates for 14 LAC countries during "normal growth" periods, which averaged 6.3 percent. During Nicaragua's "high growth" period from 1998 to 2006, the country showed an average of only 3.8 percent growth, while real cost reductions for the region during the period averaged 3.1 percent, Nicaragua experienced a most uncompetitive reduction of only 0.2 percent (Harberger 2007).

For the Central American region, Table 6.1 reveals Nicaragua's low, but slightly improving total factor productivity during the last three decades. From 1994 to 2005, the average rate for all economic sectors was 0.03 percent, while for agriculture it was -0.12 percent (FUNIDES 2007).

Table 1: Total Factor Productivity for Central American Region

Total factor productivity	1971 – 1980	1981 - 1990	1991 - 2000
	Percentages		
Costa Rica	0.33	-0.92	1.98
El Salvador	-2.21	-2.24	0.88
Guatemala	1.73	-1.43	0.64
Honduras	1.04	-0.98	-0.89
Nicaragua	-3.58	-4.20	0.35

Source: Loayza et al. 2002 in FUNIDES 2007

This study, conducted by FUNIDES, also notes particularly low rates of growth in the agricultural sector. Unlike any of the other countries in CAFTA-DR, until recently, Nicaragua's agricultural sector growth has been based almost exclusively on expanding the agricultural land frontier base. This trend, driven by poverty and low knowledge base, does not advance sector modernization and thwarts land productivity enhancement, while also facilitating resource degradation. Sector modernization is associated with land intensification with complementary infrastructure and technology improvement investments within a sustainability framework. Some notable examples of these trends in the context of priority commodities are provided. From 1995 to 2004, coffee, Nicaragua's lead export, has shown consistently decreasing land yield productivity and lagged behind industry leaders Vietnam, Brazil, and Colombia, except for 1999 (Ibid.). Moreover, yields for traditional crops, such as white maize, are the lowest of any Central American country, while bean yields are in the region's middle grouping, and rice yields have declined. The low applications of modern farm inputs is a major impediment to Nicaragua's potential, since only 11 percent of producers use certified seed and only 37 percent use fertilizer (World Bank 2007b).

Unfavorable policy measures constrain growth. A recent study of the outcomes of multiple policy interventions and uncompetitive market structures reveal an anti-agriculture and anti-export bias in Nicaragua's incentive structure across important

exportable commodities (coffee, sugar cane, peanuts, beans, meat, and sesame seed), import-competing commodities (maize, sorghum, and soy beans), and processed food products (sugar, peanuts, and meat). As a consequence, these policies and structures have brought about numerous price distortions, which limit investment and constrain income and job growth. To illustrate the damaging consequences, the study's researchers used a measure of economic protectionism called Direct Rates of Assistance (DRAs) and found that "while agriculture as a whole had an average DRA of -7.4 percent during the 1991 to 2004 period, all other non-agriculture sectors had positive and high average DRAs, the highest being lightly-processed food manufacturing with average DRA of 35.6 percent." (Berthelon, et al. 2006)

E. AGRICULTURAL SECTOR DIVERSIFICATION OPPORTUNITIES AND SUPPORT UNDER CAFTA-DR

As Nicaragua proceeds to implement its numerous FTAs, the country faces the challenge of diversifying and linking rural-based enterprises into export-oriented supply chains. More than any of its CAFTA-DR competitors, Nicaragua is challenged to accelerate diversification not only in traditional exports but also in non-traditional crops such as through value-added processing. This diversification must take advantage of Nicaragua's significant land and labor assets in ways that foster increasing specialization in the production of resource-based products using currently unskilled labor linked to intermediaries, services, and capital through value chains with industrial and service sectors that generate skilled jobs (Bussolo & Niimi 2005).

To help Nicaragua respond to newly emerging needs and opportunities in ways that expand market share while reducing risk, IICA conducted a major review to strategically orient local producers and businesses around trade-led agricultural diversification. Using a number of comparative databases, market studies, product surveys, product cost data, and demand projections, options were ranked based on their "revealed comparative advantages." Of the 81 products reviewed, approximately 50 were regarded as "promising," and 36 of those, as "particularly promising" (IICA 2004). This study and several other related sources were used to help frame the appropriate responses discussed below.

Traditional export product diversification: specialty coffee. Given the increased international demand for quality coffee and the successful diversification of international markets away from low-cost mass-produced coffee, as well as serious market-oriented product differentiation done in Guatemala and Costa Rica, Nicaragua is particularly well positioned to expand its own specialty coffee exports. As a result of assistance provided by USAID and the IDB over the last several years, as well as Nicaragua's first prize at the international Specialty Coffee Association of America "Cup of Excellence" contest in 2002, notable attention has been given to this increasingly valuable but underexploited resource. Currently only 10 percent of Nicaragua's coffee is exported to specialty markets. However, this increasingly demanding market routinely provides more remunerative prices and wages, due to the special production and post-harvest practices required. At the same time, compared with its Central American competitors, Nicaragua has the highest proportion of production areas in the favored High Altitude (above 1,200

meters) zone. Further, Nicaragua and Honduras are tied as the Central American countries with the lowest production costs for coffee (World Bank 2003a). Building from these favorable conditions, significant economic gains can be achieved with further investment of resources and technology to improve productivity, post-harvest fermentation, product marketing, and infrastructure.

Expansion of meat and dairy exports. Nicaragua has a long and respected tradition in the livestock industry, which now comprises 100,000 ranch and dairy operations nationwide. While Nicaragua has been slow to improve its animal health, related food safety infrastructure, compliance standards, and inspection systems, markets have expanded their interest in this subsector, which has seen the fastest growth over the last decade. Exports of dairy products, meat, and live animals have grown from US$100.2 million in 2000 to US$253.1 million in 2006 (CETREX 2007). Furthermore, cheese and milk exports doubled between 2005 and 2006 (Ibid.), and MIFIC was reported to be negotiating an increase in the limit for cheese exports to the United States in September 2007 as Nicaragua had already met its quota for the year. This strong expansion in exports suggests continuing opportunities for generating value-added job and wage growth, if appropriate support services and investments can be mobilized. For example, the newly formed Nicaraguan company CENTROLAC is constructing the most modern milk plant in Central America to process ultra-pasteurized (UHT) milk for export. Eskimo, an already exporting Nicaraguan dairy-products company with 55 years of history, is building the region's largest cheese production facility, again to take advantage of Nicaragua's abundant milk supply and growing consumer demand in Central America and the United States. The cattle industry, and particularly the meat subsector, is also well positioned to increase exports due to the country's long history of livestock production and abundantly cheap land endowments into which the industry has been able to expand. Expansion is occurring across various fronts and most notably with the specialty meat cuts and treatments for growing demand from Wal-Mart and ethnic markets. However, for more optimal sales to be advanced, considerable attention to productivity and efficiency levels and adherence to animal health standards will be required to guarantee a consistent product for export markets in diverse product lines.

Red beans and traditional basic grains provide special opportunities. As the Central American diaspora has grown in recent years, demand for beans outside the region has grown significantly. Nicaragua, with its high fertility and well regarded bean varieties, has been able to respond to this robust consumer demand for small red bean, black bean, and other varieties. As a result, Nicaragua has become the largest bean producer in LAC: in 2004 it produced 210.6 tons of beans, and its closest competitor was Colombia, which produced 138 tons (World Bank 2007b). Since then, Nicaraguan exports of adzuki and common varieties have doubled from $18.8 million to $36.7 million, with the majority going to El Salvador in bulk, where additional value is added through processing and packaging and from where the final product is eventually exported. Furthermore, prices for beans increased by 11 percent between December 2004 and December 2005, a trend that has continued to the present (IICA 2005). These trends demonstrate significant opportunities to further increase export value by capturing these value-added activities domestically and exporting the finished products directly to their final markets. Farm gate

prices for other basic grains have spiked as well; in December 2005, prices for white maize grew by 12.7 percent, prices for industrial sorghum rose 41.2 percent, and prices for rice increased 29.1 percent over prices in December 2004 (Ibid.). With improved productivity and price increases, increasing exports to regional and international markets should result in further growth in farm incomes.

Expansion of regional exports and domestic substitution opportunities. Nicaragua's central location in Central America, its underexploited production factors, and increased food prices observed throughout the region, provide Nicaragua with numerous opportunities to increase sales regionally and to compete with other Central America producers supplying Nicaraguan consumers. During 2004, traditional and nontraditional exports from Nicaragua to Central American markets — some of which was processed subsequently as a third-country export to the United States — increased to include coffee concentrates; boned, live, and slaughtered meat products; fresh and other cheeses and yogurt; beans; sesame; onion; cacao; yucca; and maize (Vodusek, et al. 2007). Small and medium producers are exporting mainly to regional markets in Central America as 40 percent of their exports went to El Salvador between 1998 and 2003, while during the same period 17 percent went to the United States (Ibid.). This less risky demand base can be expanded while at the same time Nicaragua advances its crucial sector competitiveness levels to expand sales in the U.S. and Europe. Also, Nicaragua imports approximately $4 million in fruits and vegetables from neighboring countries. According to IICA, several of these basic horticultural products, including potatoes, yellow onion, carrot, tomatoes, cabbage, cauliflower, red onion, beets, white onion, and celery, could be cost-effectively produced in Nicaragua, significantly replacing these imports through local production. This would generate increased producer incomes and reduce family food budgets due to lower costs (IICA 2004).

Throughout Central America, fruits and vegetables have generated greater farm income and improved job and wage growth via strengthened inter-sectoral linkages. Compared with its Central American competitors, however, Nicaragua had the slowest start-up rate in terms of production and exports in this subsector. Last year, of Nicaragua's $298 million in exports to the United States in 59 product lines, only 6 percent, ($20 million), were fruits and vegetables (miscellaneous fresh produce, beans, okra, herbs, onions, and pineapple) (CETREX 2007). By comparison, Guatemala's fruit, vegetable and related products subsector makes up 13.5 percent of that country's agricultural exports and engages a much more diverse inventory of value-added multipliers ranging from increased jobs at the production level, as well as sorting, transformation, packaging, and marketing services (Banco de Guatemala 2007).

As an additional opportunity, organic fruits and vegetables are a major underexploited subsector experiencing unprecedented consumer demand in the United States and Europe. For Nicaragua to take advantage of this opportunity, it will need improved technology in greenhouse production, irrigation, and post-harvest handling.

Agroindustrial and related processed food product development. Although El Salvador's agro-industrial export production is highly dependent on Nicaraguan primary products, recent expansion by small and medium entrepreneurs of domestically processed food and beverage products in Nicaragua demonstrates strong potential for local growth. In Nicaragua's 12 manufactured product subsectors, only food products expanded sales between 2000 and 2006, more than doubling, from $164 million to $334 million. While tobacco products grew from $8.6 to $12.6 million, the remaining 10 subsectors showed stagnating or declining exports (BCN 2007). To fully illustrate Nicaragua's potential, a MIFIC study, completed in cooperation with the Inter-American Development Bank (IDB), revealed 16 product lines of "very high" potential, ranging from processed, waxed, and frozen yucca to packaged decorative ferns, as well as other agro-industrial products including preserved fruit, cheese, and meat products (MIFIC 2004). However, while this demonstrates considerable potential, MIFIC's analysis also revealed that this sub-sector is characterized by low levels of value-added inputs and high costs due to imports of inputs (MIFIC 2007).

F. DOMESTIC AND INTERNATIONAL EFFORTS TO FACILITATE AGRICULTURAL SECTOR DIVERSIFICATION

Based on the above analysis in sections D and F (and the overarching review provided in Volume I of this study), Nicaragua's land and labor endowments could potentially stimulate much-needed job and wage growth and increased producer returns, if appropriately strengthened. During the past 15 years, the agricultural sector has responded to trade opportunities, particularly those provided in Central America and in the United States under the Caribbean Basin Initiative, with exports and GDP growing correspondingly. However, the causes of this growth have been widely attributed to continuing economic stability and policy reform, high export commodity prices for traditional commodities, expansion of the agricultural frontier, and a return to normalcy after the decade-long civil war of the 1980s (World Bank 2003a). The "low-hanging fruit" is being picked first, as little systemic support responsive to these opportunities has been provided. This response posture cannot be maintained; indeed, as recent history and the successful experience of countries such as Chile and Costa Rica demonstrate, countries must pay ongoing attention to improving total productivity, reducing risks, and mobilizing capital. In this context, this section provides an overview of major programs and initiatives of governmental agencies, civil society, and donors that are crucial to stimulating this essential process.

Public sector. The National Development Plan (PND) was a major national effort launched in 2002 to help Nicaragua initiate a medium- to long-term national effort to reduce poverty while achieving Millennium Development Goals. Particular attention was paid to promoting economic growth through facilitating private sector investments and enhanced national competitiveness, all within the context of a more export-oriented economy (Cromwell, et al. 2007). The process engaged a technical planning team mobilized by the Planning Secretariat of the Presidency that included many national and international experts across key socioeconomic sectors and entailed considerable interaction among national stakeholders. Significant attention was paid to strategically coordinating of donors within this broad process, as well as more effective management

of public expenditures. To advance these broad national objectives, sector-specific plans were developed for 2005-2009.

The drafting of these plans was integrated with the national dialogue and preparations for the ratification of CAFTA-DR. In conjunction with the executive branch's efforts to develop a national plan, the National Assembly undertook an extensive year-long review process of CAFTA-DR, in which debate focused on the competitiveness of small and medium producers and enterprises. This debate resulted in a national *Agenda Complementaria* with consensus on 10 key themes critical for enhancing national competitiveness under CAFTA-DR. This agenda, officially designated as Decree 4371, forms an annex to the ratification of the FTA, and lists these themes as:

1) Access to credit for small and medium agricultural, industrial, and agro-industrial enterprises
2) Specialized training and technology transfer programs for small and medium enterprises, including farms
3) Adaptation of the legal and institutional framework to strengthen small and medium enterprises
4) Strengthening of associative mechanisms for small and medium enterprises
5) Refinement of a system of a unified information system for export promotion
6) Formal incorporation of universities into the research and development of national production processes
7) Promotion of quality, technology, and standards certification
8) Improvement of animal and plant sanitation and food safety
9) Adaptation of key production and export infrastructure
10) Facilitation of trade flows and strengthening of commercial laws and institutions. (Asamblea Nacional 2005)

The current administration, led by Daniel Ortega, was inaugurated in January 2007. During its transition into power, it indicated an interest in the PND process and reviewed the document to assess those areas that are complementary to its new objectives. In general terms, the new administration's priorities focus on improving economic growth while reducing poverty, maintaining economic macroeconomic stability, advancing social programs to benefit the poorest, and fostering environmental stability (World Bank 2007b).

Most recently, the Ortega administration released its official policy framework, entitled *Nicaragua: Programa Económico-Financiero 2007-2010 (PEF)*, which provides the broad strategic framework for advancing economic, social, commercial, and fiscal objectives through growth, poverty reduction, and trade. The PEF's central objective is to create conditions that significantly reduce poverty and increase macroeconomic growth with sustainable public finances and external accounts as the uniting national force (GON 2007). Key policy elements of this central objective are summarized as follows:

1) For the poorest, provide basic education, health, water, food security, housing, and training.

2) Increase public investment in productive infrastructure and human capital fiscal policy in ways that ensure macroeconomic stability, such that increased expenditures are supported by appropriate revenue/financing levels.
3) Institute a monetary policy that guarantees stability and confidence.
4) Increase and diversify exports by focusing on existing markets and facilitating new markets via international agreements and relationships, such as those with Venezuela under ALBA, Taiwan, CARICOM, Panama, Brazil, Chile, Canada, and the European Union and to advance the "*Agenda Complementaria"* in support of CAFTA-DR.
5) Rely on multilateral and bilateral assistance to finance public sector and balance of payment needs, which are estimated annually at $694 million, including $61 million for direct budgetary assistance from bilateral sources. (Ibid.)

Nicaragua's Ministry of Development, Industry, and Commerce (MIFIC) is the unit responsible for negotiating and administering the country's growing list of FTAs (in compliance with USTR negotiation requirements). To respond to the major responsibilities assumed under existing FTAs, MIFIC submitted its action plan for treaty implementation, "*Plan de Implementación de los Tratados de Libre Comercio*" to the USTR in Washington, D.C. This plan comprehensively identifies the necessary reforms required to effectively administer the numerous regulations and procedures associated with these treaties and describes how the productive sectors can best take advantage of these agreements and the steps required to attract more domestic and foreign direct investment (GON 2005). To support private sector participation, particularly among small and medium farm and business enterprises, special provision will be made to facilitate formalization of legal status, access to credit, provision of productive infrastructure, market access services, development of associative mechanisms, technology transfers, business skills training, and information and outreach services (MIFIC 2005). The plan also emphasizes the importance of plant and animal phytosanitary and food safety standards, as well as the rural sector-oriented operational program PRORURAL, both of which are implemented by MAGFOR and discussed below in greater detail.

As noted, following the PND's launch, there was notable interest in developing sector-specific action plans that would lead to actual results. This targeted approach would improve efficiencies and coordination among GON institutions and programs, as well as among donors. Over the years, general institutional capacities became increasingly fragmented, as special activities diluted the broader effort. In this context, the PND's agriculture, livestock, and rural sector program strategy, *Política y Estrategia para el Desarrollo Rural Productivo*, led to MAGFOR's creation of PRORURAL, to run from 2005 to 2009. The principal objectives of this program are geared toward generating jobs and sustained economic growth, increasing exports and investments, increasing incomes to reduce economic poverty, and improving the population's general well being (MAGFOR 2005).

To advance this objective, 12 strategic areas were prioritized:

1. Technological innovation
2. Plant and animal health and food safety
3. Information and communication for agricultural development
4. Cluster development
5. Universal gender focus
6. Producer association and organization
7. Land and indigenous communities
8. Forestry, environmental, and community resource management
9. Financing and other financial services
10. Commercial agriculture and forestry
11. Food security
12. Investment in infrastructure

For these strategic foci, a five-year, $411 million budget was projected, $211 million of which was expected to be covered by 22 partners from the donor community. The largest among these were the European Union, the Inter-American Development Bank (IDB), the World Bank, Japan, and Switzerland (Ibid.).

Within this established structure, the new administration has focused particularly on the rehabilitation of the rural economy and small producers, as demonstrated by its recent launch of *Programa Productivo Alimentario Hambre 0.* As envisioned, over a five-year period, the GON would budget $30 million annually to provide 75,000 families each with a pregnant cow, a pregnant pig, five chickens, and various vegetable and fruit plants and seed packets. In addition, the program has also budgeted approximately $2,000 per family for training and technical assistance (MAGFOR 2007). This effort is intended to: convert the family farm into a sustainable, integrated unit; facilitate horizontal integration across the local farm economy; and establish and strengthen community networks (CIPRES 2007). Since the new administration announced this program, it has received a significant amount of publicity, much public discussion, and inauguration ceremonies in several departments around the country.

One of the most important public goods provided by governments in support of trade agreements is a functioning national inspection and certification service for plant and animal phytosanitary and food safety standards. This service ensures that national and international standards and regulations associated with plant and animal health and food safety requirements are respected. In Nicaragua, these critical activities are assumed by the Ministry of Agriculture, Livestock, and Forestry (MAGFOR), and delegated to the General Direction for Plant and Animal Health (DGPSA) and the Ministry of Health (MlNSA). Under MIFIC's *Plan de Implementación de los Tratados de Libre Comercio*, importance was placed on efforts to upgrade staff capacity and the number and quality of laboratories, the establishment of new health and phytosanitary laws and norms, and seed certification and traceability requirements (MIFIC 2005). Given the importance of its mandate, the team visited DGPSA to discuss the status of its program and its capacities, and in that context, to review the status of the USDA and IDB assistance. During this

exchange, the Director General reported that DGPSA's donor funding would soon expire and that national government funding for salaries and equipment for 2008 would be insufficient to operate effectively.

This brief overview of the public-sector dynamics surrounding Nicaragua's response to the complex and sensitive issues associated with trade and globalization in ways that generate broader societal gains raises several observations. While consensus has been achieved around certain key elements of a new national agenda and various strategic plans have been conceptualized, little appears to have been advanced in real terms, particularly with regard to rural diversification and the opportunities confronting the rural sector.

While the new administration advances its strategic plans in response to growing market demand and opportunity and in relation to the basic public good services needed to support trade-led agricultural diversification, the impression gleaned was that the current GON programs appear to be fragmented, generating confused strategic messages and stimulating general uncertainty. In this regard, a World Bank review of the Government's sector support effort noted:

> [S]ubstantial funds, mostly financed by grants from external sources, have been spent on agriculture and on developing rural areas. At the same time, current and capital expenditures have risen from 2.6 percent of Central Government spending in 1991 to 8.4 percent in 2001, rising from about US$11 million in 1991 to US$79 million in 2001, or from 0.7 percent to 2.3 percent of GDP. Despite this public investment, there has not been a major boost to competitive agricultural production. Why? There are two major reasons. One is the incoherence of the overall incentive system for a country that has embraced trade openness and integration in the global market.... Two, the way in which public expenditures are managed makes cost-effective use virtually impossible. The erratic nature of funding — the annual variation in funding varied from plus 157 percent to minus 32 percent — has undermined proper planning and efficient implementation.… [P]rograms are not coordinated, provide conflicting signals and incentives to various economic agents, and lack systemic monitoring and evaluation data. Overall, projects have been donor-driven rather than target-group driven, largely due to the lack of a coherent rural development strategy. (World Bank 2003a,)

Civil society. Nicaragua possesses an important, albeit nascent, private sector support base made up of producer and commercial associations and organizations. However, due to Nicaragua's prolonged period of unrest and shifting policy framework, it will have to be strengthened considerably as compared to its Central American competitors. Nonetheless, in the interim, these organizations provide a critical platform key to promoting substantive institutional and economic change. Some of the major institutions and their roles are discussed below.

The Nicaraguan Export Promotion Center (NICAEXPORT) launched its activities in 1992 and was formally established as a non-profit organization in 1996. The

organization, structured to permit extensive interaction with leading private and public institutions, is well positioned to facilitate exports and enhance competitiveness via the services it provides, while also helping to influence public policy decisions and the broader regulatory agenda. While members pay dues and fees for services, NICAEXPORT also receives support from several donors. Currently assistance is provided by Holland, which facilitates expanded activities with the European Union. Key services include:

1) The Competitive Intelligence System, which provides information related to product lines, trade and market access requirements, market intelligence, and other specialized information.
2) TradePoint, an international network with branches in 90 countries that provides personalized services related to exports, pre-feasibility, product profiles, cost structure data, and other important trade-related data.
3) Targeted business development services to help strengthen associations, assist small and medium enterprises in project development, provide targeted training and "one-stop" export process assistance services.

According to NICAEXPORT, the areas of highest export growth for Nicaragua are in the agriculture, livestock, and agro-industrial sectors (NICAEXPORT 2007).

The Supreme Private Sector Council *(*COSEP) is Nicaragua's leading business promotion group, composed of 11 business associations, including the Association of Non-Traditional Producers and Exporters (APEN) and the Nicaraguan Agricultural and Livestock Producers Union (UPANIC). COSEP was founded in 1972 with the principal objective of uniting the private sector and providing similarly demanded services to members from across the private sector spectrum. These services included special studies, seminars, technical assistance, information exchange, and other activities that sought to address the significant challenges facing the private sector in Nicaragua. Relevant to this study, COSEP conducted a major study with technical assistance from the Central American Business Administration Institute (INCAE) toward developing a National Agreement between the government and private sector that would "permit the creation of the wealth needed to eliminate poverty in Nicaragua … [by] increasing production, boosting investment, and creating jobs to reduce poverty." (COSEP 2007)[7]

Working groups of high-level officials and private sector representatives from COSEP came together under the sponsorship of Vice President Jaime Morales to define the agenda around key priority development themes — called *ejes*. These *ejes* included energy and infrastructure; agriculture/livestock, fish, and forestry; tourism and *zonas francas*; Atlantic coast; and finance. From subsequent higher-level deliberations that evolved in June 2007 at the joint "*Ejes de Desarrollo*" conference, several agreed-upon *sub-ejes* (tourism, industry and manufacturing, livestock, coffee, industrial food processing, fish and aquaculture, peanuts, sugar cane, the Atlantic Coast), and four cross-cutting *sub-ejes* (energy, infrastructure, specialized technical education, and social themes) were then presented by their respective working groups (Ibid.). Agreement was

[7] Translated from the Spanish.

reached at this meeting, and a subsequent meeting was held in October. Additional meetings are planned as the working groups continue to track and analyze the development challenges in their respective *ejes* and discuss solutions with the public sector.

ProNicaragua, established in 2002 is Nicaragua's national public/private investment promotion agency. Its mission is to generate economic growth and job creation by attracting foreign direct investment. This mission is accomplished through providing potential investors with customized site visits, investment information services, and facilitating discussions and services with key governmental contacts. Investment opportunities are identified for textiles and apparel, tourism, call centers, light manufacturing, agribusiness and forestry, and the energy sector. Among the agribusiness and forestry opportunities presented, emphasis is placed on investment opportunities in agribusiness, forestry, beef and dairy, and aquaculture, with particular importance given to generating growth-enhancing value chains (ProNicaragua 2007 & 2007a). ProNicaragua is currently exploring the investment potential of agroindustrial and food processing in the *zonas francas* (ProNicaragua 2007).

The Association of Non-Traditional Producers and Exporters (APEN) was established in 1991 with assistance from USAID. Initially, APEN focused on production and export of nontraditional products, but to pursue new product opportunities it later expanded its product scope to include coffee and meat products. APEN helps small, medium, and large producers increase exports, represents sector interests to establish clear regulations and facilitate access to competitive markets, promotes the establishment of productive value chains and export mechanisms, and encourages the formation of clusters to guarantee access to distant markets (APEN 2007). Responsive to these objectives, numerous fee-based services are provided to members upon request. These include refrigeration services for perishable fruits and vegetables at the Managua airport, product pickup points in strategic areas, a "Red Book Credit Service" to attract buyers for the 630 listed products, daily listings of horticulture prices in Central American and national markets, microbiology laboratory product and food analysis systems, representation at numerous international product fairs, and special courses such as cost accounting for small and medium enterprises, export procedures to Europe, technical norms for the ethnic market, and others.

The Nicaraguan Agricultural and Livestock Producers Union (UPANIC) comprises 11 commodity and regional producer associations currently totaling 30,000 members. Founded in 1979, UPANIC has evolved a vision that focuses on strengthening farm communities' capacities to work within the context of globalization through the new FTAs and Central American affiliates. UPANIC seeks to establish producer-level competitiveness in local, regional, and international markets with quality and diverse product lines (UPANIC 2007). The organization was actively engaged in the CAFTA-DR negotiation process and is now participating in FTA negotiations with Panama, Taiwan, and the European Union. Services provided by UPANIC include seed processing, drying, and warehousing; business plan preparation; mobilization of more effective technology delivery systems; and monitoring and advice on legal and regulatory changes (Ibid.).

The Nicaraguan Chamber of Industry (CADIN) was initially launched in 1957 and subsequently reformed in 1964. Current objectives focus on developing small and medium businesses and improving member firm competitiveness (CADIN 2007). Of particular importance in the context of this study is CADIN's proposed action plan for the industrial sector, currently under review, which focuses on expanding support for Nicaragua's high potential in the coffee, meat, sesame, bean, leather (including shoes), and biofuels value chains, as well as in sugar cane, dairy products, basic grains (except beans), fruits and vegetables, agroforestry, and wood products (Ibid.).

Agropecuaria LAFISE was organized in 2005 as a subsidiary under the LAFISE Group (Latin American Financial Services Group), a highly regarded regional investment banking company created in 1985. Innovative in its approach, Agropecuaria LAFISE linked key production support and marketing services to value chains that helped Nicaraguan small and medium producers respond to growing demand from Central American and U.S. buyers in several commodity lines. This model, initially sparked by the GON's PND to reduce poverty, provides a comprehensive private sector response to the traditional difficulties encountered by small and medium producers related to economies of scale, product price differentiations, poor access to improved technologies, the dearth of value-added productive opportunities, and ineffective credit and marketing services. Through its 48 branch offices in Nicaragua linked to BANCENTRO, funds were provided to cover anticipated production input requirements based on an actual product and farm business plans. Product storage and product transformation services were introduced until actual marketing occurred through Agropecuaria LAFISE's offices in Central America, Panama, Mexico, Dominican Republic, Venezuela, and the United States. LAFISE also provides technical assistance through local associations and support groups. Promising, market-responsive product lines that have been introduced include red beans, cacao, yucca, cheese, pitayas, and quequisque (Agropecuaria LAFISE 2006). Given the initial success and positive responses, Agropecuaria LAFISE is now working with APEN to introduce this same system as a way to further expand producer participation.

Donors and international organizations. Nicaragua's rural sector is highly dependent on funding and support from international donors and nongovernmental organizations that provide training and services to the rural poor and funding for government and social programs.

Inter-American Development Bank. The Inter-American Development Bank (IDB) is currently the largest single donor in Nicaragua, with a lending portfolio of projects in Nicaragua worth $800 million, and approximately 50 percent of these in execution. The Central Bank of Nicaragua reports that in 2006, the IDB provided $123.7 million in loans (BCN 2007). Activities are largely focused on the development of the rural sector, and programs run the gamut from support to public sector and financial institutions, education and health interventions, infrastructure improvement, and technical assistance to agricultural producers.

Among these, the Rural Production Reactivation Program is perhaps the most significant. This $60 million program that began in 2003 focuses on increasing the productivity of agricultural activities in agribusiness through technology transfer, training in technical and managerial skills, the promotion of environmentally sustainable production, and investments in infrastructure. The program itself is implemented primarily by the Instituto de Desarrollo Rural (IDR), and of the total funding, $48 million has been disbursed to date. This five-year project is the third phase of a 15-year effort to redevelop the rural sector following the country's civil war and the turmoil of the 1980s.

In addition to this major program, the IDB funds the Social Environment for Forestry Development II Program through MARENA. This program, initiated in 2001 with loan funds of nearly $32 million, is intended to improve the socioeconomic conditions and livelihoods of residents of priority watershed areas through the promotion of sustainable resource management, natural disaster prevention and mitigation, and institutional capacity building. Under the first component, this program promotes profitable, sustainable production methodologies on farms in targeted areas.

On a smaller scale, yet significant to the matter at hand, the IDB is providing direct support to the Ministry of Agriculture and Forestry (MAGFOR) to strengthen animal and plant health services to improve competitiveness and achieve compliance with international norms for export production. This $7.3 million project that began in 2004 focuses both on preventing and eradicating pests and disease, as well as modernizing food safety controls and legal frameworks. In addition, the IDB is supporting rural small and microenterprises with several programs focusing on microfinance, production of organic cotton clothing, development of renewable energy solutions, support to small cattle ranchers, promotion of sheep husbandry in arid areas, production and marketing of tubers and root crops, and development of tourism enterprises.

The World Bank. Between 2001 and 2006, the World Bank provided $497 million in development loans to Nicaragua through International Development Association (IDA) loans. During the first four years of the period, disbursements increased from $62.8 million in 2001 to $126.1 million in 2004. In 2005 and 2006, however, funding fell to $63.2 million and $61.2 million, respectively (World Bank 2007c). The Bank is currently implementing 11 projects in Nicaragua, with total commitments of $214.6 million (Ibid.).

The overall portfolio of current projects cuts across the spectrum of development interventions, and six programs focus specifically on economic development in the rural sector, with a total value of $140.6 million. Among these, the Bank is investing $60 million in rural roads rehabilitation, $32.6 million in improving systems of property rights and land administration, $16 million to support sustainable rural electricity service and generation, $12 million to strengthen agricultural policy formulation and access to improved agricultural technology, and $7 million to create incentives for private lending to productive low-income households and SMEs (Ibid.). Another project, originally valued at $17 million, was intended to promote competitiveness for improved integration into international markets, but the project was cancelled and the funds were shifted to provide emergency funding for response to Hurricane Felix in September 2007. A similar

project is currently being negotiated as part of the 2008-2012 Country Assistance Strategy, which is closely aligned to the Government's priorities and evolving poverty reduction strategy.

The World Bank has also provided significant debt relief to Nicaragua's Central Government, averaging annual debt forgiveness of $8.9 million between of 2001 and 2005, and in 2006 the Bank forgave $981.9 million in debt under HIPC and the Multilateral Debt Relief Initiative (MDRI) (BCN 2007).

USAID/Nicaragua. Currently, USAID/Nicaragua's Trade and Agribusiness Office under its Economic Freedom SO manages one active project and three Global Development Alliance (GDA) initiatives. The active contract, PROCAFTA, assists Nicaraguan trade authorities to comply with and fully capture the benefits of the Central America-Dominican Republic Free Trade Agreement (CAFTA-DR). The three GDA initiatives are focusing on promoting Small and Medium Enterprise Ventures (Technoserve/Agora), Handicrafts for Export (AMBOS Foundation), and Agribusiness Value Chains (Technoserve/CRS). USAID is also promoting improved agribusiness management and market access through the Partnership for Food Industry Development (PFID), as well as sanitary and phytosanitary (SPS) programs through specific programs as well as support for DGPSA in cooperation with the U.S. Department of Agriculture.

The Millennium Challenge Corporation/Millennium Challenge Account. In July 2005, Nicaragua signed a compact with the Millennium Challenge Corporation (MCC) for $175 million over five years, with a strategic focus on the two departments of Leon and Chinandega. In line with the MCC approach, these two departments were chosen due to a combination of significant potential for both growth and a favorable environment for taking advantage of the interventions and activities that are planned. Projects are being funded by the Millennium Challenge Account (MCA) in the three key areas of property regularization, rural business development, and transportation infrastructure. These projects are intended to reduce transportation costs and improve access to markets for rural communities, increase wages and profits from farming and related enterprises in the region, and increase investment by strengthening property rights.

Now in its second year of implementation, MCA activities have moved ahead in all three areas. Both the land titling project and the transportation infrastructure project are in early implementation stages, with some basic activities already have taken place but efforts are largely still in the planning and early implementation stages. The rural business component has already moved ahead to work with farmers and producer groups to develop and implement over 1000 new business plans. The livestock cluster project of the rural business activity has already been awarded to an implementing partner, and the agricultural cluster project is currently in the procurement process. A third project under this area, focused on forestry and watershed management, is pending release.

Over the life of the compact, the MCC expects to disburse $175 million, but in its first year, the MCA has disbursed only $6.28 million of $20.4 million projected, while as of

September of 2007, the MCA had disbursed only $3.4 million of $41.3 million projected for the year (MCC 2007).

Inter-American Institute for Cooperation in Agriculture. The Inter-American Institute for Cooperation in Agriculture has a very strong presence in Nicaragua and is a key partner for donors and the GON in promoting agricultural innovation and rural sector development. During the prior administration, IICA was intensely involved in the development and implementation of a national agenda for technical cooperation. This included the repositioning of agriculture and the rural sector in the economy, promotion of agribusiness and commerce in the agricultural sector, and strengthening of sanitary and phytosanitary controls. Other areas of focus for IICA include the promotion of sustainable natural resource management, rural community development focused on decentralization, and promotion of agricultural technology and innovation.

In Nicaragua, IICA maintains diverse relationships with international and regional organizations such as USAID, USDA, COSUDE (Swiss Development Cooperation), the Government of Finland, the Austrian Development Cooperation (ADC), the OAS, and PAHO. IICA is also working with several producer and private sector organizations to promote agricultural commerce and a broader understanding of agriculture in society at large. These include agreements with the American Chamber of Commerce (AMCHAM), the Association of Producers and Exporters of Nicaragua (APEN), and NICAEXPORT. Finally, IICA played a significant role in the development and establishment of the Ministry of Agriculture and Forestry's (MAGFOR) rural development program, PRORURAL (IICA 2006).

Other Multilateral and Bilateral Donors. In addition to these major actors, several other donors provide significant funding towards agricultural and rural development. Between 2001 and 2006, bilateral donors such as Germany, Denmark, Sweden, Switzerland, the Netherlands, and Japan collectively averaged $10 million or more in official development assistance. However, in September 2007, the government of Sweden — a significant donor that averaged ODA of $29.5 million from 2001 to 2006 — announced that they would be permanently pulling out of Nicaragua. Multilateral organizations such as the UNDP, World Food Programme, UNICEF, and others also play a strong role in the provision of development assistance, as does the European Union, which provided $51.8 million in aid in 2006, and averaged $42.8 million between 2001 and 2006 (BCN 2007).

Finally it is important to mention the Paris Club of Nations, an informal group of official creditors that have worked together to forgive significant amounts of debt to Nicaragua, as well as to coordinate donor funding around national Government priorities. Between 2001 and 2006, this group forgave a total of $1.85 billion in official debt; 2003 and 2004 marked banner years in this effort, with forgiveness of $397.9 million and $1.29 billion, respectively (Ibid.). The Paris Club has also been instrumental in supporting GON efforts to harmonize donor efforts, forming a roundtable of donors that provide pooled budgetary support to the Ministry of Agriculture and the central government and coordinate project focus and implementation throughout the country. While this roundtable is actively led

by the participant donors in cooperation with the GON, U.S. government foreign assistance agencies such as USAID, USDA, and the MCC have representation and participate in decision-making, but do not provide financial support to the combined fund.

G. STAKEHOLDERS' PERSPECTIVES ON TRADE-LED AGRICULTURAL SECTOR DIVERSIFICATION UNDER CAFTA-DR

An extensive literature review and interviews with stakeholders in Washington, D.C. and Nicaragua informed the above discussion on the macroeconomic and institutional dynamics and the domestic and international agricultural diversification efforts currently occurring in Nicaragua. More than 65 interviews were conducted for this review in Nicaragua with representatives of governmental agencies, small, medium, and large producers, representative of producer and business organizations, international organizations, NGOs, other civil society groups, and academia to assess their vies on economic transformation via trade-led agricultural diversification (for a detailed list, see section J). Key stakeholder informants were selected with guidance from USAID, international financial institutions, and other international organizations such as IICA, as well as onsite recommendations from the stakeholders themselves. Interviews with stakeholders highlighted various perceptions regarding CAFTA-DR and other rural diversification activities. Taken collectively, these perceptions point to the need for a bold, strategically focused, mutually reinforcing interventions along the lines proposed in Section H of this review. Key stakeholders perceptions are presented within two broad categories: 1) perceived potential and 2) structural challenges.

Perceived Potential

- The most overarching perception from informants is that competitive-based, rural diversification support structures are urgently needed for rural sector economic growth. General consensus formed around the concept that these should be pursued via market-responsive productivity gains linked to prevailing nascent agro-industry and related inter-sectoral linkages that generate improved wage and job growth.

- Many expressed the strong view that Nicaragua's economic and social development is intimately linked to making its underutilized but profoundly rich land and labor endowments competitive.

- Several promising growth prospects were discussed, including expanding exports from the z*onas francas*; rapidly growing demand for beans, specialty coffee, diverse dairy and meat products, and incipient fruit and vegetable lines; and cross-sector potential in organic production and processing.

- Several agribusinessmen spoke to the strong regional and international demand for quality products (particularly fruits and vegetables, but also dairy and meat) in large quantities, and the weak capacity within Nicaraguan markets to meet this demand such that with notable regularity, shipping containers could not be filled.

- Producers, agribusinesses, and related enterprises at all levels (small to large) are aggressively responding to new business opportunities, while many more are watching with interest and ready to pursue successful endeavors. Respondents consistently expressed the view that this "new" activity serves as the best means to generate improved family and community livelihoods.

- At the mid-management levels of all the public and private sector support institutions consulted, there was a notably high level of professional motivation, sober realism, and a strong sense of mission toward helping Nicaraguans confront the challenges presented by trade openness.

A limited number of private and public institutions are positioned to provide some of the essential services that respond to the challenges of growth. While these organizations are improving their coordination and can serve as "first tier" responders, their situation is precarious at best and there is an urgent need to develop a stronger institutional base to respond to the needs of producers and entrepreneurs provided by globalization's opportunities.

Structural Challenges

- Small and medium-sized producers have demonstrated a strong work ethic and capacities but are also significantly constrained by limited entrepreneurial skills, geographic isolation, and limited access to financing, among other things.

- Nicaragua's "business climate" is clouded and confused by the lack of a clear institutional framework, unified message, and coherent policies from the government, thus constraining investment and heightening risk. Several points were cited by stakeholders as stumbling blocks, including the time it takes to comply with government regulations, severe problems related to property records and land titling, and expanded regulations and related non-tariff barriers for multiple Free Trade Agreements (FTAs).

- Essential institutional and support structures are lacking. Due to the consequences of severe rural sector de-capitalization and limited attention to productivity and competitiveness requirements, Nicaraguans confront major structural limitations. These fundamental weaknesses stem from deficits in basic market-road infrastructure (one of the most frequently cited impediments) and other productive infrastructure such as irrigation, cold storage, private and public services related to new technologies and information systems, access to complementary finance, land tenure, market services, and managerial skills. One topic receiving significant attention during sessions related to the need for and limited attention paid to improving structures of *asociatividad* to improve the ability of small and medium producers to confront economies of scale through collective processing, marketing, and shipping, without which they are unable to efficiently meet market demands and fill export containers.

- Low levels of new technology development and new technology adoption. In the context of Nicaragua's extremely low levels of productivity and an increasingly competitive business environment, technology and information generation services are essential to enhance total factor productivity deficiencies and reduce overall risk. A fundamental necessity in this context is to improve mainline basic grain production technologies to benefit from rising commodity prices while fulfilling food security requirements. Notably, the nascent but crucial nontraditional agricultural export sector requires major improvements in irrigation systems and greenhouses, organic production and certification systems, post-harvest and related food science and processing technologies, livestock and dairy science, and farm management systems, among others.

- Low institutional response capacity at key levels in the public and private sectors was also commonly cited as a challenge. This situation is partly attributable to the extensive de-capitalization of the rural sector, political divisiveness throughout the country, and the inherent complexities associated with politically sensitive structural issues. The two most frequently cited structural issues are a lack of program continuity and the limited cadre of technical personnel in public sector institutions. Major issues include the lack of program continuity in response to changing market requirements and related competitiveness enhancement and cost structures. Appropriate private and public sector efforts need to be mobilized, maintained and improved, and should not suffer major programmatic shifts as political leadership and donor priorities change. MAGFOR, in particular, was noted as suffering these unfortunate tendencies as institutional capacity has been seriously eroded in recent years. A strong indicator of its weakened capacity is the Ministry's heavy reliance on donor assistance for programmatic activities.

- DGPSA is a key player in public agricultural service provision, critical to facilitating international market access for Nicaraguan exports. According to some experts, personnel in key positions have not demonstrated sufficient technical skill or knowledge in the area. Furthermore, no stakeholder was aware of the operational budget shortfall for 2008 reported in Section F.

- Lack of implementation of the *Agenda Complementaria*. This framework was intended to help Nicaraguans, particularly small and medium producers and businesses, engage with CAFTA-DR with supportive legal structures that encouraged participation and facilitated access. While the National Assembly approved this program as an annex to CAFTA-DR, advances in the *Agenda* have been inconsistent with regard to critically needed new laws, regulations, and support programs.

- Limited institutional capacities exist in the private sector at the association and *gremio* levels. These groups provide critical services and support to producers and businesses and must become more knowledgeable of global trends and competitiveness realities in their respective commodities and changing product line opportunities. To become competitive in the global marketplace, they must also develop their capacities so that members understand their own production cost

structures and pursue cost-effective alliances. Management and negotiation skills must also be developed as these organizations increasingly look within to find the best road to compete and grow.

- The rural sector-related Nicaraguan human capital base has been notably depleted. This perception was expressed across many key institutional levels and was reported on many different occasions. At the farm level, labor productivity is low due to limited advanced knowledge and practical technical skills, particularly in important areas related to management, trade, and commerce. MAGFOR is reported to be extremely depleted at the technical and managerial levels, particularly outside the capital, and MIFIC is similarly underequipped in human capital terms to confront the highly specialized and growing challenges of advancing FTAs. In addition, the complexities of enhancing trade-led growth are compounded by the shortage of the analytical and technical knowledge required to develop appropriate public programs and improve the enabling environment and investment climate.

- Appropriate national strategies to advance sustained poverty reduction in the context of export-led growth and rural diversification have been slow to materialize. Nevertheless, some attention has been paid to the previous administration's effort to introduce a planning process that would transcend constitutionally required changes in administration. In this regard, the National Development Plan was an innovative way for Nicaragua to address the Millennium Development Goals over the multi-year period required. While important elements of the National Development Plan (PND) and PRORURAL remain, major initiatives have been announced by the current administration that appears to divert significant resources away from important initial efforts already in motion. According to several informants, new national strategic planning efforts are apparently underway, and, while this is promising, the delays in establishing a clear policy framework to advance private sector and rural development was viewed as a concern by many stakeholders, who see its absence as contributing to a particularly confusing policy environment in this highly sensitive sector.

H. SUGGESTED STRATEGIC INTERVENTIONS

Given the foregoing analysis and extensive perspectives obtained from Nicaraguan stakeholders, it is clear that while Nicaragua is provided a notable opportunity, it also must confront significant challenges. The current situation can begin to be addressed by building upon Nicaragua's underexploited land and labor base and diversifying agricultural production and value-added opportunities stimulated by expanding trade agreements. Fortunately, the country is in a good position to take advantage of the considerable opportunities provided by a stabilizing macroeconomic framework and complementary FTAs. Nevertheless, to benefit in a sustainable manner, Nicaragua requires considerable focused attention and additional help to expand and diversify production of NTAEs and differentiated traditional products, linking them to agro-industrial and related service sectors. While this sector transformation process forms the basis for Nicaragua's growth and well being, strategic steps and fundamental shifts must be taken away from decades of production-driven import substitution agriculture that has

generated such limited impacts, particularly for large numbers of basic grain producers. To compete effectively in the global marketplace, Nicaragua must overcome three decades of comprehensive de-capitalization and related politicization in the rural sector and a prevailing "old era" institutional structure and mindset. The situation in Nicaragua is especially urgent, since it has fallen significantly behind its CAFTA-DR peers in many key areas. Addressing these challenges in ways that reduce rural poverty will require an especially innovative, convincing, and multifaceted support structure so that small and medium producers can actively contribute to the national wellbeing and generate broader positive economic impacts.

In the spirit of the prevailing structure and the conclusions reached from Volume I, key strategic interventions are offered below to help guide national-level government policymakers and their partners (USAID, private sector leaders, U.S. government agencies, and other donors). These suggested interventions are developed to promote dialogue and foster a focused structural response over the next two to three years, a critical period during which the establishment of an appropriate support framework will be essential. Nevertheless, Nicaraguan experts suggest that such a transformation of the rural sector will require 10 to 15 years of sustained expansion and focus to increase investment, reduce risks, and realize the growth potential for small and medium producers.

Strengthen strategic planning and programming capability. The GON is conducting certain key strategic planning activities to advance growth under the numerous free-trade and other agreements it has negotiated. Donors and key stakeholders in the public and private sectors spoke to the extraordinary importance of these activities and their inherent complexity and urgency. At the same time, emphasis was placed on the limited staff resources; fragmented GON, private sector, and donor responses; and the absence of the appropriate institutional and strategic platform for launching the requisite national program. In this context and subject to appropriate policy commitments, sustained targeted support will be necessary. Although specific ongoing GON planning activities were not directly mentioned, five interrelated priority themes for the GON and donor consideration were consistently raised in discussions with stakeholders.

1. *Promote competitiveness and trade-led economic growth.* Using national data and targeted studies, a highly skilled advisory group—possibly within the Technical Secretariat of the Presidency—should develop a national message that provides the strategic rationale, program response framework, and program interventions that will best advance the opportunities that trade-led growth can facilitate if adequately supported. Such an exercise could also begin to stimulate the appropriate national message and institutional alignments to more responsibly encourage a programmatic support framework that promotes mutually supportive public-private mechanisms at both the national and local levels, while also fostering increased donor investment and enhanced coordination.

2. *Advance the national agro-industrial program.* Building upon available studies, additional focused research, and targeted interaction with the private sector—

possibly to include international firms—key actors should advance the nascent agro-industrial sector through the development of appropriate responses. Essential to this activity is the fostering of an enabling environment for value-added production and processing activities through the provision of policy and operational support, as well as related investment incentives and capacity building in order to generate broad participation. This activity could be undertaken by a small team working with MIFIC, MAGFOR, and COSEP.

3. *Advocate rural diversification strategies on a national level.* To facilitate increased well being at the household level, it will be extremely important to articulate and promote a coherent, multi-faceted strategy that begins to lay out a national vision and a path towards national rural diversification. Options to advance some of the priority areas developed in Section E and other recent reviews could help focus this effort. This exercise could include mutually-supportive efforts that would:

    a) Expand *zonas francas* to include agro-industrial processing plants.
    b) Use the GON's "*Bono Productivo*" to confront producer-level household food security directly by providing higher yielding basic grain varieties, thus potentially freeing up arable land for more remunerative farming or livestock activities.
    c) Improve the productivity of traditional basic food crops now experiencing record high price levels.
    d) Expand exports to the growing Central American market, particularly among exports possessing greater economic multipliers—e.g., dairy, fruits and vegetables, specialty coffee, cacao—using appropriate market-based criteria and some of the support services mentioned herein.
    e) Demonstrate increased on- and off-farm job opportunities as agro-industry-related employment multipliers kick in.
    f) Explore production and employment opportunities in the forest sector, particularly for value-added wood processing activities.
    g) Develop a safety net program, as needed.

    Additional support measures may be required, particularly in the development of appropriate institutional support mechanisms that may be facilitated by a high-level national commission to help stimulate the vision and program structure and forge the national and donor commitments in key programmatic areas. Efforts toward this activity could be undertaken by a small team working with national and international experts and selected private sector stakeholders led by the Central Bank of Nicaragua, in coordination with MIFIC and MAGFOR.

4. *Establish permanent agricultural sector planning and analysis capacity within MAGFOR.* Given the transformation required within the rural sector due to globalization, improved policy analysis and planning capacity and service provision within MAGFOR is of utmost importance. While the current staff of MAGFOR's Policy Department is extremely hard working and able, it is

inadequate to provide these critical institutional support services and drive the enabling and policy framework forward. This deficiency will seriously constrain Nicaragua's ability to develop optimal policy options, strategies, and investment priorities. Improving the policy formulation capacity of MAGFOR would also help to better facilitate and coordinate the required support structure for advancing trade-led growth and generating maximum participation. This support service could be provided by a small cadre of permanent technical experts, accompanied by limited international expertise in areas where Nicaragua has inadequate capacity.

5. *Create and support an independent, highly respected, rural sector think tank.* Nicaragua urgently needs a neutral, applied research and outreach mechanism to systematically conduct and disseminate targeted rural-based research in numerous important but as yet unattended topics. Such topics could include the changing sector dynamics responsive to various program, trade, and policy options; farm-level and off-farm responses to proposed market-oriented interventions; comparative production costs with competitor-country producers; and longitudinal monitoring of farm and related community-based dynamics to advise on possible policy and regulatory options. This center would also provide key public presentations, user-friendly policy briefs, regional conferences on sectoral issues, and topic-specific exchanges to stimulate dialogue around best-practices among key stakeholders. This could be done pursuant to a review of appropriate national institutional arrangements possibly with the initial assistance of foreign institutions.

Establish a market-responsive technology generation and information dissemination system. The present "system" for technology generation and information dissemination includes many diverse approaches. They range from the highly advanced private sector sugar and peanut production systems that compete internationally, to LAFISE which provides basic technology support, and to MAGFOR and donor-funded project interventions. Except for red beans, Nicaragua observes declines in comparative yields for basic grains throughout the region. Unfortunately, except for one of the three lead export products, productivity levels in these product lines and other new products reflect limited competitiveness prospects. At the same time, new skills related to drip irrigation, production and management systems for expanded non-traditional crops and the dairy and meat sectors, integrated pest management, and basic farm management practices form some of the most essential, but deficient, technical areas. To meet today's requirements and opportunities, certain public good services must be strengthened—such as seed certification systems for private sector multiplication, where Nicaragua is particularly well positioned. At the same time, creative efforts may be needed to facilitate the expansion of important agribusiness-producer linkages and complementary support services provided by appropriate NGOs. Corresponding outreach services such as training of trainers, topic-specific short courses, essential vocational educational program support, quality service certification programs for NGOs and private sector providers, best practices guides, and other services will be possible vehicles by which to respond to this huge national need. Given the lack of local capacity, an experienced international

team could be mobilized to conduct a careful review and work with key national leaders in specific subsectors. This team should be familiar with international agricultural research centers (IARCs), commodity-specific industrial production, and business information systems management. In close interaction with national leaders, this team would then propose and design an appropriate national program strategy that could serve as the design document for possible donor funding.

Rehabilitate and establish rural farm-to-market roads and production centers. Insufficient quality, quantity, and access to farm-to-market supply centers were universally expressed problems. Producer-industry linkages are severely constrained by the absence of quality services and extremely high transportation costs, said by many to be the highest in the region. Important investments are being made by the World Bank, the IDB, and the Millennium Challenge Account. Nonetheless, it is evident that greater national engagement and donor assistance is needed to take advantage of Nicaragua's presently underutilized productive base.

Foster *asociatividad* to connect small and medium producers to markets and services. Except in a limited number of cases, small and medium producers have not managed to sustain market ties, even with limited donor assistance. Although some private sector led initiatives, such as LAFISE, offer promise, broader institutional arrangements are needed to respond to the realities and necessities of economies of scale and the increased risks of exporting.

To address this issue, many countries, including Nicaragua, are developing product-specific groupings of large and small producers and agribusinesses. These so-called "clusters" are becoming the operational means by which small and medium producers can comply with contract-based large-scale production requirements. These cluster arrangements or other related approaches respond to market requirements and can stimulate essential support services across numerous enterprises based on the simple realities of mutual benefit. In the Dominican Republic, for example, a notable reduction in producer-related transaction costs and considerably improved market margins were observed through such arrangements.

Further, associating producers with shared business interests stimulates increased production of higher-quality products and more efficient access to technologies and other support services such as feeder roads. These relationships could also be used to access and pressure local governments to target essential support infrastructure. Complementary ties with local chambers of commerce could also be leveraged to facilitate broader territorial ties and achieve national objectives. Building on initial experiences in Nicaragua from World Bank and IDB-supported efforts, and possibly study tour visits to other countries, an assessment could be conducted to explore how to target support to achieve high impact results and sustainable structures. The product of this effort might result in an important, high-impact donor-led support activity.

Explore opportunities with organic production and exportation. In the United States, demand is growing by 20 percent a year for organic fruits and vegetables, and even

higher levels are seen in Europe. California dairies are unable to meet market demand for organic milk with domestic production since their industrialized system is not suitable for organic certification. Organic production thus provides a particularly attractive means of market-driven rural diversification in ways that could generate multiple returns. Because of its central location, large endowment of arable land, comparatively low land, water, and wage values, and limited agricultural "modernization," Nicaragua's "naturally organic" production systems could be relatively easily mobilized, certified, and formalized. While potential prospects were repeatedly mentioned across numerous product lines, small- and medium-scale production is still hypothetical, although foreign direct investment efforts in this area are in process.

Accordingly, in this attractive setting, a carefully developed national promotion event hosted by the GON and the private sector with U.S. and European industry leaders could be held to assess the potential for generating "ground floor" alliances from which tailor-made product lines could be developed. This highly visible activity could serve as a creative approach to making one of Nicaragua's major but abysmally underexploited comparative advantages competitive. From this event, strategic alliances could be cultivated and follow-up studies conducted, which could lead to the design of an appropriate support project.

Strengthen the rural sector's human capital base. In the context of today's increasingly competitive world and Nicaragua's extremely low productivity levels, targeted improvements in a range of key strategic and operational levels is essential. Three levels of attention are proposed: advanced degree/specialized training, university-level training, and vocational training.

1. *Advanced degree/specialized training.* To help Nicaragua advance more aggressively in this new era, "second generation" capacity upgrading at the Masters and Ph.D. levels is needed. The now "mature" first generation of USAID-sponsored educational participants has rotated or is rotating out, and Nicaragua is particularly weak in such areas as international commerce, agricultural economics, post-harvest and food technologies, integrated pest management, information systems, and horticultural and fruit production. While Zamorano (Escuela Agrícola Panamericana) in Honduras and EARTH University (Escuela de Agricultura de la Región Tropical Húmeda) in Costa Rica can and do offer expertise, support is also strongly suggested for advanced degrees in the United States' highly regarded land grant system, with at least 10 students recommended per year. In addition, given the vital importance of the applied agribusiness disciplines, support should also be provided for students to attend programs such as INCAE's agribusiness MBA program.

2. *University preparation.* Although a few private universities also provide training, the National Agricultural University is the principal supplier of graduates to Nicaragua's rural sector job market. However, given the changing job market, curriculum adjustments to enable graduates to bridge the numerous technical and analytical issues from producer challenges to global market access are required. It

is recommended that an extensive curriculum review be conducted by senior staff members from Zamorano and a U.S. land grant university, to include interaction with the private sector to assess demand. This review would generate a proposed curriculum that would meet the needs of this new era.

3. *Vocational education.* There are no vocational training centers in Nicaragua that can produce effective technicians, a deficiency that was identified on several occasions during the course of this review. A joint Nicaraguan and donor-assisted review of this issue is needed, which could stimulate the presentation of a proposal for external funding.

Improve awareness and understanding of CAFTA-DR regulatory requirements. Until now, little information has been disseminated about highly technical regulatory, legal, and inspection requirements and services (which range from technical norms compliance to intellectual property rights) that are needed to advance investment and exports under CAFTA-DR. Although initial laws and regulatory systems have been established, there is continued concern that the appropriate skill levels and related budgets to operationalize these systems have not been put into place. To "institutionalize" these essential services, key elements should be identified and fortified.

For example, the important plant and animal health inspection services that DGPSA provides are currently funded with significant assistance from the USDA and the IDB. DGPSA has reported, however, that this funding is set to expire in 2008, putting provision of these essential services into serious jeopardy. Some report that the technical capacities for this key service have also eroded, due, in part, to turnover in the agency. Given the absolutely critical role of these services in supporting production and exports, this matter will obviously require swift attention and rectification. To give key GON parties (and possibly donors) the best framework for understanding the necessary capacities to perform and deliver essential services, it is recommended that this unit be evaluated by the USDA and USAID to assess manual and operational systems, technical staff, laboratory needs, and true institutional capacities in the anticipated context of expanded needs.

An additional and related matter is the advancement of the *Agenda Complementaria*, the legislatively approved agenda for establishing a legal framework of government services that will support Nicaragua's growth under CAFTA-DR. The Agenda was approved as an annex to CAFTA-DR and maps out a comprehensive structure, from labor regulatory compliance matters to improving national competitiveness. While it was a multipartisan effort with broad-based support when it was approved, the current political environment and the more complex complementary agenda based on this analysis may require different approaches to advancing this important national effort, which has been largely stalled up to the present.

Facilitate access to financial support services. On numerous occasions during this study, limited access to capital was raised as a serious constraint to growth, particularly in discussions about farm-level investments that would be needed to facilitate rural

diversification. At the same time, due to the greater sectoral interest and demand for credit, based largely on expanding exports and commodity price booms, new funding sources and financial services have become available over the last several years. Clearly, while this is a major problem, particularly when larger credit outlays are predicated upon often non-existent property rights, structures such as those employed by Agropecuaria LAFISE demonstrate great potential. This increasingly positive environment is further facilitated by additional linkages between producers and foreign company buyers such as those established between Starbucks and Nestle with large groups of coffee and cacao producers, respectively. Similarly, new multi-sectoral initiatives such as the USAID/CRS *Alliance to Create Opportunities for Rural Development through Agribusiness Relationships* (ACORDAR) and other donor-led cluster-promotion projects also provide alternative and attractive opportunities. These approaches identify and work through well-selected and cohesive groups, provide important technical assistance and access to more remunerative markets, and reduce risks and administrative costs through economies of scale. These successful experiences must be better packaged and understood so that the broader banking and finance community is more aware of their potential for success and profit.

Continue to increase donor coordination and focus. As previously noted, the GON depends on assistance from multiple donors in the rural sector, a situation that is expected only to deepen. At the same time, while government ministries generally appreciate donor assistance, there is growing sentiment that resources must be focused on national priorities within a national strategic framework. It also seems evident that further attention is required to strategize and strengthen the new institutional support base in the context of globalization and numerous FTAs. In addition, both GON and private sector stakeholders raised concerns about donor activities with regard to limited long-term commitments, limited timeframe for implementation, and the limited sustainability of project activities and results, once funding was retired. In many cases, according to diverse sources, under these well intended efforts, unhealthy dependencies were created when national competitiveness capacities and independence ought to have been enhanced. Given the vital importance of donor resources, multiple returns are possible, if efforts are sufficiently focused and coordinated.

Facilitating role for the CAFTA-DR Trade Capacity Building Committee. The CAFTA-DR Trade Capacity Building Committee has a mandate to help advance the transformation process faced by the parties to the agreement. This committee is well-positioned to be a facilitator across a broad range of actors including public sector officials (trade, agriculture, finance), the private sector, and other donors. To fulfill this role, the committee may wish to establish a sub-committee to focus on advancing trade-led agricultural diversification by providing a coordinating/facilitating mechanism to help the CAFTA-DR countries and donors to mobilize support for and sustain momentum toward achieving the broad objective. To help ensure and sustain this sub-committee, it is recommended that each party designate an appropriate official representative to the sub-committee, with the authority to coordinate domestically among public sector officials and the private sector.

Donor coordination. A considerable amount of technical and financial support will be required for the agricultural diversification process to be successful. Intensified coordination among donor agencies would help sustain focus on the need for increased funding support and see that that resources are invested for maximum impact on accelerating trade-led agricultural diversification. In some cases, there are broad in-country donor coordination processes underway. The Trade Capacity Building Committee, in close coordination with in-country USAID officials, is well-positioned to facilitate such coordination in support of efforts by the countries to diversify their agricultural sectors. To the degree that both the Government of Nicaragua and the United States can accelerate fund disbursement and program implementation, as well as influence the design of programs with multilateral lending institutions, the sooner the process of trade-led agricultural diversification can be advanced. The previously mentioned strategic plan could serve as a tool to harness and shape future assistance efforts.

Prioritizing benefits under CAFTA-DR. Given the vital importance of CAFTA-DR in the region, upcoming and/or potential donor support, and the importance of introducing the rural diversification initiatives early, we propose the creation of a regularly conducted bilateral review in connection with the annual meeting of the commission of the CAFTA-DR Agreement.

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J. LIST OF INTERVIEWEES

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Public Sector		
Humberto Argüello	Director of the National Export Promotion Commission	Ministry of Development, Industry, and Trade (MIFIC)
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Arturo Solórzano	Director of Industrial Development	Ministry of Development, Industry, and Trade (MIFIC)
Pedro Blandón	National Coordinator of Industrial Policy (UNDP consultant)	Ministry of Development, Industry, and Trade (MIFIC)
Vinnitsia Leytón	Agribusiness & Forestry Investment Promotion Manager	PRONicaragua
Mario España	Manufacturing Investment Promotion Manager	PRONicaragua
Guillermo Ibarra	General Director	General Directorate of Agricultural Protection and Health (DGPSA)
Donaldo Picado	Chief, Department of Farm Inspections	General Directorate of Agricultural Protection and Health (DGPSA)
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Julio Castillo	General Director for Policy	Ministry of Agriculture and Forestry (MAGFOR)
Orlando Solórzano	Minister	Ministry of Development, Industry, and Trade (MIFIC)
Azucena Castillo	Representative (ALN) Minister (Fmr.)	National Assembly of Nicaragua MIFIC (Administration of Enrique Bolaños)
Arlene de Franco	Manager (Fmr.) Director, Natural Resources	Presidential Competitiveness Commission (Administration of Enrique Bolaños) MIFIC (Administration of Enrique Bolaños)

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Enrique Zamora	General Manager President	Agropecuaria LAFISE Association of Producers and Exporters of Nicaragua
Jorge Brenes	General Manager	Association of Producers and Exporters of Nicaragua
Donald Tuckler	Executive Secretary	National Association of Poultry Breeders and Feed Producers (ANAPA)
Mario Amador	President General Manager	Chamber of Industries of Nicaragua National Committee of Sugar Producers – Nicaragua
Mario Salvo Horvilleur	Corporate Technical Director Minister (Fmr.)	Eskimo, S.A. MAGFOR (Administration of Enrique Bolaños)
Jorge Medina	Assistant for Technical Direction	Eskimo, S.A.
Wilfredo Severino Escobar	President	Association of Producers of Santa Lucia (ASOPROL)
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Alfredo Marín	Executive Director	Industrial San Martín (beef processor)
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Roberto Bendaña	Coffee Producer, Entrepreneur & Competitiveness Specialist	
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