



DRAFT

**LESSONS FROM ENVIRONMENTAL ASSESSMENTS AND CAPACITY BUILDING
OF FREE TRADE IN THE AMERICAS¹**

The views expressed herein are presented for informational purposes only and do not represent the opinions or official positions of the Organization of American States, its General Secretariat, or any of its Member States.

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Executive Summary

The OAS' Department of Sustainable Development (DSD) has been working on technical analyses and capacity building activities related to the links between trade, investment and environment in Argentina, Brazil, Paraguay, Uruguay, Colombia, Ecuador, Peru, Costa Rica, Guatemala, Panama, Dominican Republic and Trinidad & Tobago. The analyses focus on the three pillars of sustainable development – economic, environmental and social – in the framework of the participation of these countries in trading blocks such as the Central American Common Market, the Andean Community, CARICOM, and MERCOSUR, as well as in negotiation processes with key trading partners for the region such as United States and Canada. The model developed by the OAS analyzes changes in domestic markets while trade barriers are eliminated, and the environmental and social consequences that can be anticipated from these economic effects. Different trade scenarios were considered for each country, and specific sectors were identified depending on possible economic changes due to trade, in addition to the relationship of these sectors with the environment and specific natural resources. Each assessment was submitted for peer review and for comments from more than five hundred experts and key stakeholders from different sectors, including the public and private sector, non governmental organizations and academia.

Several challenges were faced during the execution of the assessments, including those related to methodology, information, resources and political circumstances.

The results of the assessments indicate that the increase in international trade and the growth of exports due to the signing of a new generation of trade agreements, such as the DR-CAFTA, can have a negative effect on the environment, including impacts on biodiversity and natural resources management. However, the extent of these pressures will depend on the technologies used and the production process selected. In addition, the extent of these impacts and their social consequences will depend on the effectiveness of existing legal and institutional frameworks. The tables attached to this report provide a summary of the economic, environmental and social effects under a FTAA scenario.

Sound environmental management represents an improvement for the effectiveness of the economic equation,² beyond any other aspect related to trade openness; therefore, it is necessary to draft a complementary agenda, based on a sustainable macro-level policy, to address fundamental issues, such as information gaps, the need of *ex-ante* information, public participation, design and implementation of adequate legal and institutional frameworks, and institutional strengthening, among others.

Despite all the challenges faced while conducting these assessments, mainly those related to limitations of the methodology, the results and recommendations are a very useful contribution that could serve as a guide.

² The New Economic Equation Project opened in May 1995 with a 3-day working conference for 50 national leaders. The equation was defined as follows: economic well-being = integration of work, family, and community.

I. Introduction

1.1 Background and Context

Since December 1999, the OAS' Department of Sustainable Development (DSD) has been working on a technical analyses and capacity building activities related to the links between trade, investment and environment. In accordance to the priorities established by the Summits of the Americas, the DSD gathered a group of experts and academics to work along with Member States on a thorough analysis, evaluation and dialogue on environmental sustainability of free trade in the Americas through the "*Environmental Assessments and Capacity Building of Free Trade in the Americas*" Initiative. The main objective of this initiative involved the preparation of *ex-ante* environmental assessments of trade liberalization in twelve Member States of the OAS (Argentina, Brazil, Paraguay, Uruguay, Colombia, Ecuador, Peru, Costa Rica, Guatemala, Panama, Dominican Republic and Trinidad & Tobago), highlighting the anticipated environmental impacts resulting from trade integration and liberalization processes in the Americas.

At the beginning, the initiative was aimed at analyzing only environmental aspects in the framework of the Free Trade Area of the Americas (FTAA), since this economic integration was expected to become one of the most important trade blocks in the world, and in a way, an idea of development strongly linked to liberalization and open market, which became the corner stone of the economic paradigm of the world during the mid-eighties. Nevertheless, this vision – perhaps excessively optimistic about the link between trade and development – is currently being the subject of strong criticism.

Some critics have recognized that trade liberalization alone is not always enough for a sustainable economic development, pointing out the need to combine open trade measures with the strengthening of judicial, political and social institutions for the proper performance of a market-based economy open to global competition. In addition, changes in the priorities of the countries involved in this initiative prompted a change geared towards an analysis of the three pillars of sustainable development – economic, environmental and social – in the framework of the participation of these countries in trading blocks such as the Central American Common Market, the Andean Community, CARICOM, and MERCOSUR, as well as in negotiation processes with key trading partners for the region such as United States and Canada.

These assessments have helped to increase knowledge and facilitated the exchange of ideas related to the sustainability of the process for trade liberalization. Additionally, the evaluation process has identified the need for strengthening capacities related to national norms, regulations and standards affecting access to goods and services to different markets.

For more than seven years USAID has been the main sponsor for this initiative (US\$665,000.00, including US\$65,000.00 for activities related to Cleaner Production and US\$50,000.00 to the Americas Trade and Sustainable Development Forum). Other sponsors include USEPA and Charles Stewart Mott Foundation. This report focuses on the nine countries where the assessments were conducted with funds from USAID: Argentina, Brazil, Paraguay, Uruguay, Costa Rica, Guatemala, Panama, Dominican Republic, and Trinidad & Tobago. However,

experiences of the work performed in Colombia, Ecuador and Peru, funded by USEPA, are also included.

1.2 Importance of Sectors

The focus of the first assessment conducted by the OAS-DSD as part of this initiative was Argentina; the scope of work included an analysis of all the economic sectors of country. However, this approach proved to be too ambitious. The consensus of experts involved in the initiative was to perform a scoping exercise and select two or three sectors by applying criteria that considered competitiveness, comparative advantage, as well as environmental and social factors.

To assess the environmental impact, it was considered if trade changes can affect production by studying how trade flow affects total trade in the sector. Focusing on a selected number of sectors and not the whole economy provides a better understanding of the production chain. When analyzing these results, one must keep in mind that the different approaches to simulate the consequences of free trade agreements are based, largely, on historical data.

II. Methodology

2.1 Objective of the Assessments

The assessments are intended to support the decision-making process of the governments. They provide the necessary tools and information for sustainable trade liberalization and increase in production.

This objective must be considered more of a development impact than a result of the assessments, since they depend on factors such as willingness and the political price that comes from decisions that favor sustainable development. However, during the execution of the initiative, changes in the behavior of decision-makers were evident, perhaps a positive outcome of the assessments.

2.2 Methodology

The model developed by the OAS-DSD examines to what extent domestic markets in the specific countries are likely to change as trade barriers are eliminated, and what environmental consequences can be anticipated from these economically driven effects. The analysis was supported by non-governmental organizations within each country, together with stakeholders from different sectors, such as economists, engineers, judges and government officials.

The structure and methodology of these assessments include: 1) an economic analysis of the growth or change in specific economic sectors based on general and partial equilibrium models, as well as revealed comparative advantages; 2) an analysis of the environmental effects using environmental indicators; and 3) an analysis of the legal-institutional framework, and recommendations for policy-making.

Different trade scenarios were considered for each country, and specific sectors were identified depending on possible economic changes or growth due to trade, in addition to the relationship of these sectors with the environment and specific natural resources. Some of the social implications in each sector have been considered in the studies taking into consideration socio-economic indicators. The following three sections provide more information on the three components of the methodology.

2.2.1 Economic Analysis

The main objective of this component is to create a scientific baseline to predict possible effects of trade liberalization. The first step, prior to performing the analysis, is to identify key sectors, – ideally no more than 2 or 3 – products and services that could be affected as a result of changes in tariffs, non-tariff barriers, subsidies, access to market and other factors. To this end, the importance of the selected sectors for the economy of the country and for the region is taken into consideration, as well as the relationship of these with natural resources. Next step involves analyzing these key economic sectors, and those with potential to grow or change significantly as a response to reforms or changes in trade policy, and investment related to trade. The preferred economic tools for this analysis should include economic models such as the Computable General Equilibrium (CGE), Partial Equilibrium, Comparative Advantage and casuistic studies, among others. Quantitative results from CGE analysis of other studies should be included, particularly multi-sector studies and forecasts performed by national ministries of trade and economy, World Bank and other institutions. The economic analysis should focus on products and services that are likely to grow or change significantly due to changes in trade and economic policies. Emphasis must be made in both the qualitative analysis and the quantitative products.³ If appropriate, the analysis must examine changes in important sectors for the national economy and include results from analyses conducted by other agencies (e.g., UNEP, IDB, and UNCTAD, among others). Additionally, an analysis on how trade liberalization would affect these good and services must be included.

2.2.2 Environmental Impact Assessment

The Environmental Impact Assessment (EIA) must be based on the economic analysis and the anticipated changes in the selected sectors, to determine those likely to have significant environmental impacts and to determine the nature and level of those impacts. This analysis must include an environmental description of the goods and services, and a basic review using key environmental indicators, including air emissions, water effluents water, land use and change, impact on biological diversity, sustainable logging practices, hazardous waste generation and management. The point of reference and baseline must consider the indicators recommended by the United Nations Environment Programme (UNEP) in their Reference Handbook for Integrated Assessment of Policies Related to Trade, 2002. The method used to analyze economic and environmental data is crucial for the relevance of the report. A good source of information on economic and environmental coefficients can be found in work performed by OECD, World Bank, the Millennium Assessment Project, UNEP, and others.

³ Quantitative Products: Past, present and future growth and changes by sector, trade flow, regional and sub-regional importance of employment, etc.

2.2.3 *Legal and Institutional Analysis*

The definition and development of the legal and institutional analysis of the report must be based on the results of the economic analysis and the EIA, as described in the previous sections. The analysis must include a review on the effectiveness are the national legal and institutional frameworks to manage and reduce environmental impacts – both under the existing economic conditions and the expected outcome of trade liberalization. It should also emphasize the economic growth or change as a result of liberalization and the level of environmental impact. This analysis provides knowledge on policies and institutional framework, as well as the necessary steps to guarantee a sustainable economic expansion in a new open trade regime, such as the one proposed in the FTAA. This component at a minimum includes a “legal baseline” covering a description of jurisdiction, competence and existing capacity of relevant institutions. It examines potential legal – institutional as well as enforcement and compliance issues of relevance that should be addressed from the standpoint of sustainable trade. Some effort is made towards analyzing the challenges and opportunities for legal and institutional strengthening to minimize or avoid negative environmental consequences and to maximize potential environmental benefits of trade liberalization. The effectiveness of the current legal institutional frameworks (related to environmental and social impacts when applicable) should be comprehensively analyzed in this component in order to issue recommendations as appropriate.

2.2.4 *Additional Methodology Issues*

Challenges and Opportunities

Priorities and needs at the national level must be clearly identified for the three elements previously described in the methodology, emphasizing challenges for the environment due to trade liberalization. It is important to highlight limitations related to the effectiveness and enforcement of the legal and institutional framework, and include specific recommendations to overcome them.

Social Impacts

Depending on the sectors analyzed, and when appropriate, a description of the expected social impacts of trade liberalization related to the identified environmental impacts must be included. These expected impacts could include employment and unemployment rates, poverty levels, health and gender.

2.3 Public Participation

In compliance with public participation principles adopted by Member States of the OAS, each assessment was subject to revision and comments from experts and key stakeholders from different sectors, including public, private, non-governmental and academia. Through these peer reviews, based on surveys and interviews, a series of policy recommendations and institutional strengthening were presented for discussion with stakeholders in national and regional workshops to promote the dialogue on these assessments.

Following is a detailed list in chronological order of the workshops held in the framework of the initiative:

Activity	Location	Date	No. participants
Workshop “Report Review: Environmental Impact Assessment of the FTAA: Argentina”	Buenos Aires, Argentina	12-Mar-03	24
Workshop “Report Review: Environmental Impact Assessment of the FTAA: Argentina”	Brasilia, Brazil	23-May-03	44
Presentation of the publication “Environmental Sustainability in Trade: Assessment of the Expected Impacts of the FTAA: Argentina”	Buenos Aires, Argentina	28-Oct-03	137
Workshop “Environmental Impact Assessment and Institutional Capacity in the framework of the FTAA: Uruguay”	Asuncion, Paraguay	26-Apr-04	19
Workshop “Environmental Impact Assessment and Institutional Capacity in the framework of the FTAA: Uruguay”	Montevideo, Uruguay	27-Apr-04	28
Workshop “Trade and Environment: Perspectives and Opportunities”	San Jose, Costa Rica	20-Jul-04	34
Workshop “Trade and Environment: Perspectives and Opportunities”	Guatemala City, Guatemala	22-Jul-04	20
Panel of Experts on Trade and Sustainability in the Americas	Washington, DC	24-May-05	69
Capacity Building Workshop on Trade and Environment: Opportunities for Sustainable Production and Consumption	Managua, Nicaragua	5-Aug-05	31
Workshop “Trade and Environment: Environmental and Institutional Capacity of the Andean Region in the context of Free Trade” ⁴	Quito, Ecuador	17-Nov-05	60
National Workshop “Environmental Assessment and Capacity Building for Free Trade in the Andean Region: Peru”	Lima, Peru	25-Apr-06	41
Workshop “Environmental Assessment and Capacity Building for Free Trade in the Andean Region: Colombia”	Bogota, Colombia	27-Apr-06	26
Workshop on Environmental Assessment and Capacity Building for Free Trade.	Santo Domingo, Dominican Republic	26-Mar-07	30
Workshop on Environmental Assessment and Capacity Building for Free Trade.	Panama City, Panama	29-Mar-07	18
Total of participants		581	

⁴ With support from USEPA

2.4 Difficulties and Challenges: data collection and availability, indicators

The main challenges faced during the execution of the initiative were related to methodology, to information, resources and those of political nature.

2.4.1 *Challenges related to methodology*

From a technical point of view, the environmental assessment of a liberalization process is intended to be a tool to predict, analyze and mitigate the expected negative social and environmental effects, and promote the positive ones. However, it must include a political component, with the main objective of helping stakeholders in the decision-making process. Nevertheless, the nature of existing methodologies for environmental assessments are *in situ* and it is necessary to adjust them to be used for more complex process such as the ones related to trade liberalization. On the other hand, the concept of sustainable development, and its three pillars, suggests that in order to analyze the environmental impacts, social and economic variables must be considered; therefore further adjustments to the methodology would be necessary. A major limitation of this type of assessments is the need of a methodology able to incorporate all the aspects mentioned before, and endorsed by the scientific community, with the potential impact on political matters. After working with the twelve countries involved in this initiative, it is necessary to highlight the importance of involving decision-makers from the beginning of the analytical work. While recognizing the limitations related to methodology, these assessments are a very useful contribution that could serve as a guide.

2.4.2 *Challenges related to information*

An assessment on the impact of trade liberalization on sustainability demands availability, accessibility and reliability of information in all the sectors being analyzed. In many countries, this was not the case. Many presented serious information gaps, except in the economic sector. However, more information is needed in order to build scenarios of activity in the industry or economic sector and activity. This would also facilitate conducting assessments for each economic sector, as well as monitoring the effective compliance of the environmental legislation. In the case of the information related to environmental indicators, extensive data has been collected by different environment programs, private institutions and national authorities, but it has not been systematized. Therefore, all the information must be obtained directly from the sources, in the case of environmental indicators, through field samples. However, information variability in time is hard to verify due to lack of baseline information. Emphasizing in specific sectors limits the necessary effort, but lack of systematized information at the sector level such as the environmental impact assessment of specific project is also an obstacle.

2.4.3 *Challenges related to available resources*

In addition to the challenges related to the methodology and information, the need for resources is another significant challenge. First, because of the limitations previously described, in many cases, are due to the lack of funding provided by either the state or federal government to perform statistical analyses. Second, as a consequence of the limitations related to the

methodology and information, conducting these assessments requires more time and is more expensive. Finally, there is also the need to build human resources capacity to work on multi-sector issues at the national level, such as the ones being analyzed in these assessments.

2.4.4 Challenges of political nature

The political cost of decision-making was an important issue to consider by most of the countries involved in the initiative, particularly in those cases where the recommendations from the assessments involved an economic sacrifice in a winning sector. Job instability of government employees adds to the lack of continuity and application of the results from political decisions. Finally, it is worth mentioning that including government employees in the assessments has a positive impact in the continuity and in the results, as well as significant public participation.

III. Results

3.1 General Approach

Results from the assessments indicated both positive and negative economic, environmental and social impacts in almost all of the twelve countries. Scale and product effects of trade liberalization generate wealth increment in those considered as winning sectors, with positive outcomes for the social and environmental sectors. However, in many cases an increase in production translates into more demand of natural resources, energy consumption, levels of emissions, and infrastructure requirements. Most of these impacts can be mitigated at the project level or with improvements at the institutional level, particularly in the enforcement of existing norms and strengthening of stakeholders involved. Positive social impacts are usually related to the economic impacts and the negative impacts are associated to environmental impacts. These negative impacts are more significant in the losing sectors or where production could decrease as a result of scale effects from other sectors.

3.2 Summary of Results by Country

Following is a summary of the results of the assessments for each country. More detailed information is included in tables attached as an annex to this report.

Argentina

The assessment for Argentina was conducted with Fundación Ambiente y Recursos Naturales and it aimed to study the possible economic effects of the proposed Free Trade Area of the Americas (FTAA). This assessment looks at some of the key environmental issues in identified sectors such as the meat industry, oil and its derivatives, sugar processing, soy production, iron and steel making, and non-metallic mining. It also highlights the need for an in-depth life cycle analysis, in particular for the soy sector, given the high demand, growth of the activity and the nature of the social and environmental effects of its production. One conclusion of this assessment is the need for a formal communication mechanism between policy makers in different sectors, towards the integration of sustainability into trade and public policy.

Brazil

In Brazil, the assessment focuses on the industrial sector, and it indicates that the main environmental changes with the possible implementation of the FTAA could include water contamination and air pollution. However, the assessment highlights that those industries that could affect air quality in Brazil use environmentally friendly technologies in order to meet sustainability and market access requirements of the export markets. Additionally, the assessment examines the Brazilian legal-institutional frameworks and the internalization of environmental cost by industry, concluding that these costs do not affect competitiveness. Finally, this assessment includes some recommendations for regulating entities in terms of promoting efficiency and competitiveness of the Brazilian industrial sector.

Paraguay

In Paraguay the assessment was conducted with the Paraguayan Institute for Environmental Law and Economics. The assessment analyzed the soy and cotton sectors, and observed the latter as slightly replacing soy production which has practically become a monoculture in Paraguay. The economic impacts of the fast growth in soy production with free trade were analyzed in the assessment, as well as the environmental and social effects, including, soil erosion, loss of biodiversity and jobs, due to the mechanic nature of soy production. On the social front an important effect identified includes the spread of some diseases that had been previously eradicated. This assessment includes key policy recommendations for agricultural diversification and integration of sustainability into public policy and decision making.

Uruguay

The outcomes of the assessment conducted with Fundación Ecos in Uruguay, highlight that the meat and wool sectors could have economic opportunities with trade liberalization. Paper and rice show slightly negative economic impacts in the analysis. The environmental effects derived from changes in the sectors with economic opportunities were not considerable, because of existing controls applicable for example to the meat industry. However, the assessment indicates that there are serious impacts in the forestry sector due to the cultivation of non-native species and soil erosion. Another issue considered, is a notable tendency of increasing production of soy to meet international demand. This has resulted in an expansion of the agricultural frontier and additional pressure on soil due to replacement of native forest for agricultural purposes. Coordination within MERCOSUR for sustainable development policies and a common agricultural policy are some of the recommendations of the assessment.

Costa Rica and Guatemala

In the assessment conducted for Costa Rica and Guatemala, sugar cane and melon were selected for the analysis, because of the importance of the agricultural sector to Central American economies. The assessment shows that during 2001, melon exports in both countries increased by US\$118 million, thereby expanding the cultivated area in the region to almost twenty thousand hectares. In the particular case of sugar cane, the analysis shows how both countries already have preferences with the United States, one of their main destination markets, through the Caribbean Basin Initiative (CBI) and how they could be consolidated with an annual 2% increase in the quota with the implementation of the DR-CAFTA agreement. Some of the key environmental issues analyzed in the assessment include the intensive use of water and its

contamination from agricultural activities, in addition to the effects of plastic disposal practices and pesticide use in melon production. Pollution from “slash and burn” in sugar cane plantations and some externalities related to soil and water were also covered. The assessment includes policy recommendations that have already been discussed with different stakeholders in the region.

Panama

The assessment conducted in Panama focused on the United States-Panama Trade Promotion Agreement (TPA); the selected sectors for the analysis were sugar cane and shrimp production. The criteria used for selection included the competitiveness of exports in each sector to the United States, direct and indirect employment generation, the need to expand sugar cane plantations and the current environmental impacts of shrimp production. The analysis shows an increase of the sugar quota in 7,000 metric tons, but not liberalization of the sector. As for the shrimp sector, the analysis revealed a consolidation of the preferences granted under the CBI through which shrimp has zero tariffs. The production potential of shrimp is currently under the existing capacity levels, but no changes in exports flows or market access are expected under the TPA. The environmental impacts of sugar cane are mainly derived from expansion in production and include the elimination of important microbial flora populations, changes in soil composition due to the use of agrochemicals, aquifer contamination and atmospheric pollution due to slash and burn. In the case of shrimp, the main impacts are destruction of coastal and aquatic ecosystems, salinization of aquifers, soil degradation and coastal water pollution. These impacts are mostly derived from the effluent discharge of organic matter, agrochemicals and biocides. As for social impacts, employment generation is expected to be positive, for instance in the case of sugar cane, generations of 300 permanent jobs and 4300 temporary jobs. However, negative health impacts were observed, because of workplace safety and slash and burn. In the shrimp sector, potential impacts include those due to labor related immigration, conflicts among local communities because of an increased demand of resources and pressure on basic public services such as water. Finally, on the legal-institutional front, Panama has a modern and adequate legal-institutional framework, but institutional strengthening is still needed, as well as collaboration with academia, to strengthen the leadership of the National Authority for the Environment.

Dominican Republic

The sectors analyzed in the assessment, conducted jointly with the Dominican Institute for Environmental Law, for the Dominican Republic were textiles, rice, coffee, fruits and vegetables. The selection criteria included potential changes in production, intensity of liberalization, sensitivity of production, and potential environmental impacts derived from changes in production patterns and nature of the production process. The partial equilibrium model used in this assessment shows a potential increase in exports of apparel of 5.2% and textile accessories of 5.7%. The results for this sector also include a net change in production of 5.7% with DR-CAFTA. The main economic impact for the rice sector is a net change in production (0%) and a projected 5% increase in imports with DR-CAFTA. For the coffee sector, a net change in production patterns (-2%) is projected due to an increase in imports to the Dominican Republic of 6% with DR-CAFTA. In the case of fruits and vegetables, overall there is no projected increase in exports but there is in specific items, such as organics. The economic impact on agriculture was considered to be low in the analysis and moderate in textiles and apparel.

The environmental impacts were assessed throughout the productive chain of each selected sector and by considering the baseline environmental conditions and the implications of the economic and productive changes derived from trade. In the textile sector, the projected growth implies a vertical integration of the sector. The highest impacts identified were related to the management of chemical substances, water and solid waste. Low impacts were identified due to land use change and in air quality. All the environmental impacts can be mitigated at the project level. On the social side, positive impacts include employment generation. In the rice sector, high impacts include changes in land use, and an increase in poverty and associated risks. Positive impacts identified include a decrease in agrochemical discharge, and water use. For the coffee sector, high negative impacts were identified in the area of land use change leading to the loss of forest coverage in mountainous regions and to a greater use of agrochemicals. Low negative impacts include a decrease in income in the mountainous regions. For the fruit and vegetable sector, high-level negative impacts include agrochemical use and solid waste production. Medium negative impacts include the use of water and changes in land use. Positive impacts include improved socio-economic conditions in rural areas, as well as organic production.

Trinidad & Tobago

The sectors analyzed in the assessment conducted with the support of the Business Development Company in Trinidad & Tobago were food and beverages. The assessment focused on the impacts of free trade in the Americas and a partial equilibrium model was used to calculate the impact on imports. It was assumed that the removal of import tariffs in Trinidad & Tobago would have a negligible effect on exports, since 90% of exports already benefit from privileged access. Most of the remaining 10% (mainly manufactures) benefit from privileged access in the CARICOM market. The assessment projects that imports of goods will increase by just over US\$ 1 billion as a result of tariff reductions. FTAA access will result in the exports of goods and services which are not currently being exported. The increase in imports will lead to a US\$ 1.7 billion fall in the GDP, representing about 11% of the country's 2005 GDP.

Given the current structure of Trinidad & Tobago's economy, the assessment estimates that the food and beverage sector is likely to be a loser and that in fact, no sector will perform better than another in an FTAA scenario. There are few links among the various economic sectors in Trinidad & Tobago's economy, so a fall in the production of the food and beverage sector will have a negligible effect on other sectors. Given the fall in overall production, the environmental impacts associated with the production of food and beverages (such as water use, solid waste production and use of chemicals) will decrease.

Data limitations in Trinidad & Tobago, constrained a more detailed approach in the assessment at the sector level.

The regulatory effects identified include solid institutions with authority on environmental issues, but weak capacity to enforce. An additional challenge found is that institutions with the responsibility for policy-making also have monitoring and enforcement in their portfolio.

IV. Lessons and Follow-Up

4.1 Important Lessons

The trade liberalization trend of last decade has been an opportunity for the Latin America and Caribbean region to strengthen competitiveness in its main target markets, including Europe, United States and Canada. However, it is expected that an increase in international trade and the growth of exportation as a result of the signing of new generation of free trade agreements, such as the DR-CAFTA, translates into an increase pressure in the use of natural resources. The extent of this pressure will depend on the technologies used and the characteristics of the production processes, such as solid waste management, and gas emission control, among others.

At the same time, the extent of these impacts and the consequences in the social sector also depend on the effectiveness of the existing legal and institutional frameworks. That is, if these frameworks are adequate and constantly and effectively enforced. In most of the countries the existing regulatory frameworks are based in models applied in other countries, therefore lacking mechanisms to promote their enforcement. Additionally, there are not enough resources assigned to the authorities in charge of their enforcement. An important lesson is the need to establish indicators and alternatives for enforcement, promote transparency and public participation.

Finally, it is important to mention the need to increase the availability and quality of environmental information. In all the countries, limitations related to information are an obstacle for environmental management. Therefore, data production and collection for environmental management must be promoted, as well as its systematization.

4.2 Lessons of Political Nature

The challenges at the political, economic and social levels are also obstacles to understand the potential opportunities. Particularly, since there is a lack of baseline information linking these three sectors.

Political instability and weak legal and institutional frameworks are a hindrance for the development of proper environmental information systems and design procedures, implementation of instruments for environmental management and institutional strengthening. It is necessary to strengthen the rule of law in order to create proper conditions to favor legal security and institutional continuity.

Work should focus on defining and following, as in the case of Costa Rica, a national policy for environmental protection and sustainable development promotion with appropriate legal instruments for its implementation. Therefore, efforts must be supported to obtain a clear, precise and consistent policy to guide public sector activities and, among other things, develop a proper legal policy.

Deficiencies in institutional capacity represent a structural problem related to lack of development. Research should focus on alternatives to promote sustainable development with the application of innovative and creative instruments in the context of weak institutions. Participation of stakeholders from different sectors and civil society facilitate the study of new alternatives for development.

It is necessary to revise, update and prioritize environmental norms in order to adequate them to priorities established in the main trade and environmental agreements ratified by the institutions and according to the economic strategies of each country.

4.3 Linkages with Capacity Development

There is a need to create new mechanisms to build human resources capacity, and for institutional strengthening. Providers and beneficiaries from these institutional capacity-building processes must review current mechanisms for strengthening institutional capacity and work together in the design and implementation of more effective procedures aimed at identifying capacity needs and to establish the programs accordingly.

Government and other stakeholders from the region agree that institutional capacity is a key factor for the design and implementation of integrated economic policies that promote sustainable development. Therefore, it is necessary to maximize the processes already in place in this area, and target them to personnel with technical and public service background to achieve continuity.

4.4 Private Sector Involvement

Results from the assessments show that in general terms, the region does not have in place a formal mechanism to include the participation of the private sector for economic policy making; except in few cases where the involvement of the private sector has been conducted through informal channels.

The government must shift its policy focus and strategy to interact with the private sector, and promote a culture of environmental quality in the society. This can be achieved through a better articulation and communication among the different stakeholders in charge of the economic and trade policies, and those areas in charge of environmental planning.

The private sector must have access to good quality and updated environmental information, as well as to technology to promote exports and support new products and market alternatives, and at the same time, contributing to the improvement of environmental knowledge.

According to the private sector, the government should focus on the following priority areas for action: institutional strengthening, fiscal transparency, incentives for the production sector, improvement to infrastructure, and trade services.

It is necessary to guarantee, and increase, the participation of the private sector during the policy-making process and the elaboration of development programs, coordinate environmental efforts with government representatives, and promote the dialogue with the public sector and other stakeholders for the management of trade and environment related matters, in support of environmental compliance.

A permanent consultation process with the private sector must be established during international trade negotiations, and support the private sector to take advantage of the opportunities offered

by international markets. Additionally, it is necessary to assess and follow-up on requests from the private sector related to the compliance of commitments and international mechanisms.

Improving the environmental conditions of production processes should not be based on the conditions established by trade partners, it should be a decision made by the producers themselves. Understanding that good environmental management is crucial for the sustainable development of a country goes beyond an efficient management by the public sector, but also by the responsible attitude of the private sector. Thus, the private sector should change their reactive stance to a proactive one.

4.5 Conclusions and Follow-Up

The dynamic world economy has prompted developed and developing countries to negotiate free trade agreements with main trade partners. Latin American countries have actively participated in this process. These trade negotiation processes, developed in the region with countries such as Canada and the United States, have implications in the production schemes in the region, and in environmental matters in each country. This has been recognized by including this subject in trade agreements that are being promoted.

There are different opinions related to the advantages and disadvantages of including environmental matters in the international trade agenda. Some civil society sectors, and particularly Environment Non-Governmental Organizations (ENGOS), fear that open trade policies and trade liberalization will result in negative social and environmental effects, mainly in the least developed countries of the world. These negative consequences would shadow any potential benefit that could result from trade liberalization.

From a least developed country point of view, the adoption of strict environmental regulations from other countries implies an institutional effort almost impossible to achieve for the current and near future economic context, particularly if a sustained economic growth is not in sight, with the possibility of implementing active policies for promotion, differentiated treatment, softer financial credit, that those available in the market. The growing international trend towards linking environmental matters with economic development and international trade relations can no longer be ignored. Sound environmental management represents improvements in the effectiveness of the economic equation beyond any aspect linked to trade openness; therefore, it is necessary to draft a complementary agenda, based on a sustainable macro-level policy, to address fundamental issues, such as information gaps, the need of *ex-ante* information, public participation, design and implementation of adequate legal and institutional frameworks, and institutional strengthening, among others.