

Interim Environmental Review

U.S.-Central America Free Trade Agreement

Office of the U.S. Trade Representative

August 2003

Executive Summary

Pursuant to authority delegated by the President in Executive Order 13277 (November 19, 2002), the United States Trade Representative (USTR) submits this Interim Environmental Review of the prospective U.S.-Central America Free Trade Agreement (CAFTA), as provided for under section 2102(c)(4) of the Trade Act of 2002 (Trade Act).

On October 1, 2002, in accordance with section 2104(a) of the Trade Act, U.S. Trade Representative Robert B. Zoellick notified the Congress of the President's intent to enter into negotiations for a free trade agreement with Costa Rica, El Salvador, Guatemala, Honduras and Nicaragua (collectively, "CAFTA countries"). The formal launch of negotiations took place on January 8, 2003. Nine rounds of negotiations are scheduled and, as of the date of this Interim Review, six rounds have taken place. A group on trade capacity building has been meeting in parallel with the negotiating groups at every round. The negotiations are scheduled to conclude by the end of 2003.

Following the guidelines for environmental reviews (65 Fed. Reg. 79,442), this Interim Review identifies possible environmental effects that may be associated with the CAFTA. In identifying the possible environmental effects, the Administration drew on public comments submitted in response to a notice in the *Federal Register* (67 Fed. Reg. 70,475), and supplemented public advice on scope by seeking the advice of all agencies with relevant expertise. In preparing this Interim Review, the Administration relied on the expertise of these agencies as well as a variety of other sources of information, including published reports.

This interim review provides provisional conclusions and identifies areas for further investigation and attention in the course of the ongoing negotiations. The Administration welcomes public comment on these preliminary findings:

- Based on existing patterns of trade and changes likely to result from provisions of the CAFTA, the impact of the CAFTA on total U.S. production through changes in U.S. exports appears likely to be very small. As a result, the CAFTA is not expected to have significant direct effects on the U.S. environment.
- Based on an analysis of comparable provisions of previous FTAs, the CAFTA is not expected to have a negative impact on the ability of U.S. government authorities to enforce or maintain U.S. environmental laws or regulations.
- As compared to its effect in the United States, the CAFTA may have relatively greater effects on the economies of Central America. Net changes in production and trade may be relatively small, however, because exports to the United States from these countries already face low or zero tariffs.

- The CAFTA may have indirect effects on the U.S. environment through transboundary transmission of pollutants (air and water), and through effects on habitat for wildlife in Central America, including migratory species. The likelihood and magnitude of such effects require further analysis.
- The CAFTA may have positive environmental consequences in Central America by reinforcing efforts to effectively enforce environmental laws, accelerating economic growth and development through trade and investment and disseminating environmentally beneficial technologies.
- The CAFTA provides a context for enhancing cooperation activities to address both trade-related and other environmental issues.

Interim Environmental Review of the U.S.- Central America Free Trade Agreement

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I. LEGAL AND POLICY FRAMEWORK

A. The Trade Act of 2002

The Trade Act establishes a number of negotiating objectives and other priorities relating to the environment. As relevant here, the Trade Act contains three sets of objectives: (i) overall trade negotiating objectives; (ii) principal trade negotiating objectives; and (iii) promotion of certain priorities, including associated requirements to report to Congress.

Overall environment-related trade negotiating objectives include:

- (1) ensuring that trade and environmental policies are mutually supportive and to seek to protect and preserve the environment and enhance the international means of doing so, while optimizing the use of the world's resources (section 2102(a)(5)); and
- (2) seeking provisions in trade agreements under which parties to those agreements strive to ensure that they do not weaken or reduce the protections afforded in domestic environmental and labor laws as an encouragement for trade (section 2102(a)(7)).

In addition, the Trade Act establishes the following environment-related principal trade negotiating objectives:

- (1) ensuring that a party to a trade agreement with the United States does not fail to effectively enforce its environmental laws, through a sustained or recurring course of action or inaction, in a manner affecting trade between the parties, while recognizing a party's right to exercise discretion with respect to investigatory, prosecutorial, regulatory, and compliance matters and to prioritize allocation of resources for environmental law enforcement (sections 2102(b)(11)(A)&(B));
- (2) strengthening the capacity of U.S. trading partners to protect the environment through the promotion of sustainable development (section 2102(b)(11)(D));
- (3) reducing or eliminating government practices or policies that unduly threaten sustainable development (section 2102(b)(11)(E));
- (4) seeking market access, through the elimination of tariffs and nontariff barriers, for U.S. environmental technologies, goods and services (section 2102(b)(11)(F)); and
- (5) ensuring that environmental, health or safety policies and practices of parties to trade agreements with the United States do not arbitrarily or unjustifiably discriminate against

U.S. exports or serve as disguised barriers to trade (section 2102(b)(11)(G)).

The Trade Act also provides for the promotion of certain environment-related priorities and associated reporting requirements, including:

(1) seeking to establish consultative mechanisms among parties to trade agreements to strengthen the capacity of U.S. trading partners to develop and implement standards for the protection of the environment and human health based on sound science and reporting to the Committee on Ways and Means and the Committee on Finance (“Committees”) on the control and operation of such mechanisms (section 2102(c)(3));

(2) conducting environmental reviews of future trade and investment agreements consistent with Executive Order 13141 and its relevant guidelines, and reporting to the Committees on the results of such reviews (section 2102(c)(4)); and

(3) continuing to promote consideration of multilateral environmental agreements and consult with parties to such agreements regarding the consistency of any such agreement that includes trade measures with existing exceptions under Article XX of the GATT 1994 (section 2102(c)(10)).

B. The Environmental Review Process

The framework for conducting environmental reviews of trade agreements under the Trade Act is provided by Executive Order 13141—*Environmental Review of Trade Agreements* (64 Fed. Reg. 63,169) and the associated Guidelines (65 Fed. Reg. 79,442). The Order and Guidelines are available on USTR’s website at <http://www.ustr.gov/environment/environmental.shtml>.

The purpose of environmental reviews is to ensure that policymakers and the public are informed about reasonably foreseeable environmental impacts of trade agreements (both positive and negative), identify complementarities between trade and environmental objectives and help shape appropriate responses if environmental impacts are identified. Section 5(b) of Executive Order 13141 provides that “as a general matter, the focus of environmental reviews will be impacts in the United States,” but “[a]s appropriate and prudent, reviews may also examine global and transboundary impacts.” Reviews are intended to be one tool, among others, for integrating environmental information and analysis into the fluid, dynamic process of trade negotiations. USTR and the Council on Environmental Quality (CEQ) jointly oversee implementation of the Order and Guidelines. USTR, through the Trade Policy Staff Committee (TPSC), is responsible for conducting the individual reviews.

The environmental review process provides opportunities for public involvement, including an early and open process for determining the scope of the environmental review (“scoping”).

Through the scoping process, potentially significant issues are identified for in-depth analysis, while issues that are less significant – or that have been adequately addressed in earlier reviews – are eliminated from detailed study.

The Guidelines recognize that the approach adopted in individual reviews will vary from case to case, given the wide variety of trade agreements and negotiating timetables. Generally, however, reviews address two types of questions: (i) the extent to which positive and negative environmental impacts may flow from economic changes estimated to result from the prospective agreement; and (ii) the extent to which proposed agreement provisions may affect U.S. environmental laws and regulations (including, as appropriate, the ability of state, local and tribal authorities to regulate with respect to environmental matters).

II. BACKGROUND

As described in the Guidelines, the focus of this review is on the possible effects in the United States, although trans-boundary and global effects may be considered as appropriate and prudent. Both public comments and interagency analysis of the appropriate scope for the review emphasized the need to examine possible indirect effects on the U.S. environment through transboundary air and water pollution and effects on shared migratory species, such as neo-tropical migratory birds. Recognition of existing environmental challenges in Central America, the geographic proximity of the CAFTA countries to the United States and the importance of Central America as habitat for neo-tropical migratory birds suggest careful consideration of these possible effects of the FTA. This review does not, however, provide a comprehensive assessment of environmental concerns in Central America, or broad-scale consideration of the manner in which economic growth unrelated to the CAFTA may affect the Central American environment.

A. Economy and Environment

The countries making up the proposed CAFTA are Costa Rica, El Salvador, Guatemala, Honduras and Nicaragua. These countries are located in the tropical region south of Mexico and comprise most of the landmass connecting North and South America. The region is flanked by the Pacific Ocean to the west and the Caribbean Sea to the east, with over 2,300 miles of coastline and a combined area of 159,000 square miles. The climate is tropical and subtropical.

Economy

Tables 1 and 2 (Annex IV) provide basic economic, trade and development data on the countries of the proposed CAFTA, including the United States. Although small in comparison to the U.S. economy, the countries of Central America are important and growing trading partners for the United States. The United States is the main supplier of goods and services to these economies

and is the largest single market for their exports. The FTA is expected to strengthen political and economic reforms already underway in the region and reinforce basic building blocks for long-term development, such as the rule of law, transparent governance, protection of property rights and investment and market-based competition.

Tables 1 and 2 (Annex IV) illustrate the scale of the Central American economies in relation to the United States, as well as diversity within the region in terms of economic and social development. Although per capita incomes differ widely within Central America, economic growth in all of the countries of the region is highly dependent on trade. The United States is an important market due to its size and proximity and the existence of relatively few market barriers for Central American goods. Under the Caribbean Basin Initiative (CBI) and other U.S. preference programs, U.S. tariffs on Central American goods are already low, and nearly three-quarters of regional imports currently enter the United States duty-free.

Costa Rica has achieved considerable success in establishing a developed and stable democracy and an increasingly diversified economy. Costa Rica's economy, once largely dependent on agriculture, now includes strong technology and tourism sectors. Ecological conservation is a widely accepted value in Costa Rica, and the country has been a regional leader in the development of the eco-tourism industry.

El Salvador ranks second in the region in per capita GDP, but its average annual income is slightly more than half that of Costa Rica (see table 1, Annex IV). El Salvador has made remarkable economic, social and political progress since it emerged from a 12-year civil war in 1991. During the 1990s, growth and stable prices replaced economic decline and inflation. Trade liberalization, financial sector and pension reforms and privatization of state-owned enterprises have all contributed to a strengthened economy. El Salvador is less dependent now on agriculture than in the past and is developing strong service and manufacturing sectors.

Guatemala is the largest of the CAFTA countries in terms of both population and total GDP. Guatemala's economy experienced significant growth during the 1990s, with GDP more than doubling from 1991 to 2001. The 1996 signing of peace accords, which ended 36 years of civil war, removed a major obstacle to foreign investment and also set a social agenda to address development needs through a substantial increase in investment in basic infrastructure. Nevertheless, and like other countries in the region, Guatemala continues to face problems of poverty and income distribution. More than half of the population lives below the poverty line.

With a population of 6.6 million and per capita GDP (in nominal terms) less than \$1,000, Honduras is among the poorest countries in the Western Hemisphere. Throughout the 1990s, Honduran economic growth was less consistent than that of other CAFTA countries, but has recently improved, led by growth in exports.

Measured in terms of per capita GDP, Nicaragua is the poorest of the CAFTA countries but is in the process of a transformation. In the 1990s, Nicaragua moved from being a nation torn by war with an economy in chaos to being an inclusive democracy establishing new foundations for future economic growth. The peaceful transition to a democratic system of government in the early 1990s was accompanied by adoption of market-based reforms, generating a strong economic recovery. Growth has not been steady, however, and structural economic reforms are ongoing.

Environment

As a consequence of national, regional and international concern, attention to environmental issues in Central America has increased markedly, especially over the past decade. Environment is now addressed in the broader context of development, environmental policies have been formulated and environmental institutions have been created.¹ Nevertheless, countries in the region face considerable challenges as they seek to achieve development goals while protecting their environment.

Although it accounts for less than one percent of the earth's land area, Central America contains considerable biological diversity. The marine and coastal systems of the region include complex and distinct ecosystems and are among the most productive in the world. However, ongoing habitat loss threatens many species and a variety of activities, such as resource extraction, land conversion for agriculture, coastal development and tourism are causing degradation of terrestrial and marine ecosystems, including estuaries, mangroves and coral reefs.² Tables 3 and 4 (Annex IV) summarize selected land use data and biodiversity indicators for Central America and the United States. These data display both environmental challenges (such as rates of deforestation and threats to species) as well as progress in addressing environmental concerns (such as the share of land in protected status, and the area of biosphere reserves). Data in tables 3 and 4 should be interpreted in conjunction with data in tables 1 and 2 in order to gain insights into the environment/development nexus.

For Central America, the most pressing environmental issues include: loss of biodiversity, notably through deforestation and forest degradation; air and water pollution, including in coastal and marine systems; waste disposal; sustainable energy production; and degradation of land through erosion, nutrient depletion and mismanagement.

¹ See: *Latin American and the Caribbean, Environment Outlook 2000* (GEO-LAC 2000), United Nations Environment Program (UNEP), Regional Office for Latin America and the Caribbean (available at: <http://www.unep.org/geo/index.htm>).

² See: "Nature, People and Well Being: Mesoamerica Fact Book." Partners and Donors Conference, Mesoamerican Biological Corridor. Paris, France, December 12-13, 2002. University of Costa Rica Development Observatory and the Central American Commission for Environment and Development.

Deforestation: Deforestation has been a concern for many years and is inextricably linked to a variety of problems in the CAFTA countries. Deforestation has been driven by many factors, including development policies that encouraged conversion of forested land (for example, for cattle grazing or coffee growing); illegal logging; and a combination of population growth, extreme poverty and lack of widespread access to electricity or other fuels, leading to reliance on wood and other traditional fuels for cooking. As a result, all of the CAFTA countries have lost significant portions of their forest land and continue to struggle to check current rates of deforestation (see table 3, Annex IV).

The CAFTA countries, however, have made some important strides in addressing deforestation, including by promoting electrification and establishing policies and innovative programs to encourage sustainable forest management. Costa Rica, for example, has established a program that pays owners of forest land to retain forest cover. Guatemala and Honduras have been active members of the International Tropical Timber Organization (ITTO), an international organization that promotes trade in tropical timber from sustainably managed sources. However, despite such efforts and progress, these countries remain vulnerable to a variety of deforestation-related problems such as landslides, soil erosion, floods and hurricanes, as demonstrated by the devastation of Hurricane Mitch in 1998. The loss of forest cover has decreased habitat for the unique biodiversity of the region and adds considerable pressure on the viability of many species. Deforestation also contributes to levels of runoff, leading to water pollution through the release of a number of contaminants, with adverse effects on freshwater and marine species, and drinking water supplies.

Environmental Laws: The countries of Central America are progressively moving towards an integrated treatment of the environment in their national laws, and they have made a concerted effort over the last 10 years to develop laws and enforcement mechanisms. At this time, most have gone through at least two phases in the development of environmental laws: an initial, somewhat fragmented approach concentrated on particular sectors, followed by more systematic (although still incomplete) identification of objectives and standards. Each of the five CAFTA countries has passed a general framework law on the environment addressing air, water, land and biodiversity, establishing and/or strengthening institutional mechanisms and drawing on many advanced principles. They also have begun to develop specific laws and regulations addressing, for example, pesticide use, environmental impact assessment and other matters. In addition, their constitutions have been reformed to include the obligation of each government to provide a healthy and ecologically sound environment.³ Since 1994, the Central American-United States Joint Accord (CONCAUSA) has been contributing to this process through U.S. federal agency assistance in the reform and enactment of national environmental laws. (See Annex II for additional information on U.S. environmental cooperation with CAFTA countries.)

³ Central American Commission on Environment and Development (CCAD), 1998. "State of Environment and Natural Resources in Central America." San Jose, Costa Rica. Available at: <http://ccad.sgsica.org/documents/doc2000.php>.

Although there appears to be good progress in establishing national and regional frameworks for addressing environmental problems, the ability to effectively implement and enforce environmental laws is limited by the lack of fiscal and human resources. The challenges faced in enforcement at the national level include the need to strengthen enforcement and compliance mechanisms and national institutions. Some steps in this direction are in process. For example, environmental divisions have been created within the offices of the attorneys general to enforce natural resource regulations oriented towards public ownership. Through the CONCAUSA project, officials from the CAFTA countries have participated in capacity building training programs on impact assessment, inspection, enforcement and other matters, and judges have been trained in environmental law. Legislative bodies are proposing new environmental laws and overcoming the traditional practice of only receiving projects from executive power for approval. There also has been an increase in policies oriented towards decentralization and greater regional autonomy, which provides local governments with greater decision making powers and responsibility for the administration of goods and services within their jurisdiction.⁴ However, local and regional levels of government face even greater institutional and fiscal constraints in terms of their ability to implement and enforce mandates and programs. In addition, administrative regulations and procedures for the enforcement of general laws on the environment of most of the countries are in early stages of development, as are efforts to provide transparent processes for public participation.

Central American treaties relating to biodiversity, hazardous substances, forests and climate change have been signed and ratified by all countries in the region and complement the large number of multilateral, regional and bilateral treaties on the environment to which each of the countries is a party (see Annex I). Regional commissions of technical teams have been created as a result of these treaties and meet periodically to examine and promote compliance with commitments. Additional information on Central American countries and their environment is available from a variety of sources, including the Central American Commission on Environment and Development (CCAD) and the United Nations Environment Program (UNEP).⁵ The CCAD is a regional organization created by the countries of Central American in 1989 to enhance the development of regional initiatives.

In 1997 the U.S. Department of State established an Environmental Hub for Central America and the Caribbean, one of 12 such regional environmental offices worldwide. The hub is located at the U.S. Embassy in Costa Rica, and its goal is to promote U.S. environmental diplomacy with a focus on transboundary issues. The United States has been involved in environmental cooperation with the CAFTA countries via this and other mechanisms on such issues as harmonization of environmental legislation, development of the Mesoamerican Biological

⁴ Ibid.

⁵ Information on CCAD is available at <http://ccad.sgsica.org>; information on UNEP is available at <http://www.unep.org>.

Corridor, increasing awareness of illegal wildlife trade (including species covered in CITES) and organizing the first meeting of the parties for the Inter-American Sea Turtle Convention, held in August 2002. See Annex II for a summary of U.S. environmental cooperation activities in Central America.

B. U.S. – CAFTA Trade

In 2002, two-way trade between the United States and the CAFTA countries was more than \$21 billion, accounting for about 1 percent of U.S. imports and slightly more than 1 percent of U.S. exports (see Table 5, Annex IV). U.S. exports to the CAFTA countries were \$9.8 billion in 2002, an increase of 9 percent over 2001 (in contrast to a 6 percent decline in total U.S. exports). The United States is the main supplier of goods and services to Central America, accounting for about 40 percent of the region's imports. Key U.S. exports to the region include machinery and equipment, chemicals and plastics, agricultural products, textiles and apparel and paper. The majority (more than three-quarters) of U.S. exporters to the region are small and medium-sized businesses, and these firms account for nearly half of the value of U.S. exports to Central America.

CAFTA country exports to the United States totaled \$11.9 billion in 2002, an increase of about 7 percent from 2001. In 2002, the largest categories of U.S. imports from the CAFTA countries were textiles and apparel and agricultural commodities. Textiles and apparel accounted for more than half of the value of U.S. imports from Central America in 2002. The United States had a trade deficit with the region in 2002 of \$2.4 billion, a slight increase from 2001. U.S. Foreign Direct Investment (FDI) in the CAFTA member states was valued at \$3.0 billion in 2001, a 20% drop from 2000 levels. The United States has signed bilateral investment treaties (BITs) with El Salvador, Honduras and Nicaragua. As of the date of this Interim Review only the BIT with Honduras is in force.

C. U.S. Objectives in the Proposed Free Trade Agreement

The CAFTA will build on the Caribbean Basin Initiative (CBI), a U.S. unilateral trade preference program that has driven the U.S.-Central America trade relationship since 1984. By moving from unilateral trade preferences to a reciprocal FTA, the U.S.-CAFTA will seek to eliminate duties and unjustified barriers to trade in goods of both U.S. and Central American origin. The CAFTA is also expected to address trade in services, trade in agricultural products, investment, trade-related aspects of intellectual property rights, government procurement and trade-related environmental and labor matters.

As set forth in the notification letters to Congress, the Administration's specific objectives for negotiations with Central America are as follows:

· *Trade in Goods:*

- Seek to eliminate tariffs and other duties and charges on trade between Central America and the United States on the broadest possible basis, subject to reasonable adjustment periods for import-sensitive products.
- Seek to eliminate non-tariff barriers in Central America to U.S. exports, including licensing barriers on agricultural products, restrictive administration of tariff-rate quotas, unjustified trade restrictions that affect new U.S. technologies and other trade restrictive measures that U.S. exporters identify.
- Seek to eliminate Central American government practices that adversely affect U.S. exports of perishable or cyclical agricultural products, while improving U.S. import relief mechanisms as appropriate.
- Pursue a mechanism with Central America that will support achieving the U.S. objective in the WTO negotiations of eliminating all export subsidies on agricultural products and in the FTAA negotiations of eliminating agricultural export subsidies on trade in the Hemisphere, while maintaining the right to provide *bona fide* food aid and preserving U.S. agricultural market development and export credit programs.
- Pursue fully reciprocal access to the Central American market for U.S. textile and apparel products.

· *Customs Matters, Rules of Origin and Enforcement Cooperation:*

- Seek rules to require that Central American customs operations are conducted with transparency, efficiency and predictability and that customs laws, regulations, decisions and rulings are not applied in a manner that would create unwarranted procedural obstacles to international trade.
- Seek rules of origin, procedures for applying these rules and provisions to address circumvention matters that will ensure that preferential duty rates under the FTA with Central America apply only to goods eligible to receive such treatment, without creating unnecessary obstacles to trade.
- Seek terms for cooperative efforts with Central American governments regarding enforcement of customs and related issues, including trade in textiles and apparel.

· *Sanitary and Phytosanitary (SPS) Measures:*

- Seek to have the Central American countries reaffirm their WTO commitments on SPS measures and eliminate any unjustified SPS restrictions.
- Seek to strengthen collaboration with Central American governments in implementing the WTO SPS Agreement and to enhance cooperation with those governments in relevant international bodies on developing international SPS standards, guidelines and recommendations.

· *Technical Barriers to Trade (TBT):*

- Seek to have the Central American countries reaffirm their WTO TBT commitments and eliminate any unjustified TBT measures.
- Seek to strengthen collaboration with Central American governments on implementation of the WTO TBT Agreement and create a procedure for exchanging information with the Central American countries on TBT-related issues.

· *Intellectual Property Rights:*

- Seek to establish standards to be applied in Central America that build on the foundations established in the WTO Agreement on Trade-Related Aspects of Intellectual Property (TRIPs Agreement) and other international intellectual property agreements, such as the World Intellectual Property Organization Copyright Treaty and Performances and Phonograms Treaty and the Patent Cooperation Treaty.
- In areas such as patent protection and protection of undisclosed information, seek to have the Central American countries apply levels of protection and practices more in line with U.S. law and practices, including appropriate flexibility.
- Seek to strengthen the Central American governments' procedures to enforce intellectual property rights, such as by ensuring that Central American authorities seize suspected pirated and counterfeit goods, equipment used to make such goods or to transmit pirated goods and documentary evidence. Seek to strengthen measures in Central America that provide for compensation of right holders for infringements of intellectual property rights and to provide for criminal penalties under Central American law that are sufficient to have a deterrent effect on piracy and counterfeiting.

· *Trade in Services:*

- Pursue disciplines to address discriminatory and other barriers to trade in Central America’s services markets. Pursue a comprehensive approach to market access, including any necessary improvements in access to the telecommunications, financial services, energy and other sectors.
- Seek improved transparency and predictability of Central American regulatory procedure, specialized disciplines for financial services and additional disciplines on Central American measures governing telecommunication services and other sectors as necessary.
- Seek appropriate provisions to ensure that the Central American countries will facilitate the temporary entry of U.S. business persons into their territories, while ensuring that any commitments by the United States are limited to temporary entry provisions and do not require any changes to U.S. laws and regulations relating to permanent immigration and permanent employment rights.

· *Investment:*

- Seek to establish rules that reduce or eliminate artificial or trade-distorting barriers to U.S. investment in Central America, while ensuring that Central American investors in the United States are not accorded greater substantive rights with respect to investment protections than U.S. investors in the United States, and to secure for U.S. investors in Central America important rights comparable to those that would be available under U.S. legal principles and practice.
- Seek to ensure that U.S. investors receive treatment as favorable as that accorded to domestic or other foreign investors in Central America and to address unjustified barriers to the establishment and operation of U.S. investments in Central America. Provide procedures to resolve disputes between U.S. investors and the governments of the Central American countries that are in keeping with the trade promotion authority goals of being expeditious, fair and transparent.

· *Electronic Commerce:*

- Seek to affirm that Central American countries will allow U.S. goods and services to be delivered electronically to their markets and to ensure that they do not apply customs duties to digital products or unjustifiably discriminate among products delivered electronically.

- *Government Procurement:*
 - Seek to establish rules requiring government procurement procedures and practices in Central America to be fair, transparent and predictable for suppliers of U.S. goods and services who seek to do business with the Central American governments.
 - Seek to expand access for U.S. goods and services to Central American government procurement markets.
- *Transparency/Anti-Corruption/Regulatory Reform:*
 - Seek to make the Central American countries' administration of their trade regimes more transparent and pursue rules that will permit timely and meaningful public comment before the Central American governments adopt trade-related measures.
 - Seek to ensure that the Central American countries apply high standards prohibiting corrupt practices affecting international trade and enforce such prohibitions.
- *Trade Remedies:*
 - Provide a bilateral safeguard mechanism during the transition period to allow a temporary revocation of tariff preferences if increased imports from one or more Central American countries are a substantial cause of serious injury, or threat of serious injury, to a domestic industry.
 - Make no changes in U.S. antidumping and countervailing duty laws.
- *Environment:*
 - Seek to promote trade and environment policies that are mutually supportive.
 - Seek an appropriate commitment by the Central American countries to the effective enforcement of their environmental laws.
 - Establish that the Central American countries will strive to ensure that they will not, as an encouragement for trade or investment, weaken or reduce the protections provided for in their environmental laws.

- Help the Central American countries strengthen their capacity to protect the environment through the promotion of sustainable development, such as by establishing consultative mechanisms.

Labor, including Child Labor:

- Seek an appropriate commitment by the Central American countries to effectively enforce their labor laws.
- Establish that the Central American countries will strive to ensure that they will not, as an encouragement for trade or investment, weaken or reduce the protections provided for in their labor laws.
- Based upon review and analysis of their labor law and practices, establish procedures for consultations and cooperative activities with the Central American countries to strengthen their capacity to promote respect for core labor standards, including compliance with ILO Convention 182 on the worst forms of child labor, building on technical assistance programs administered by the U.S. Department of Labor.

State-to-State Dispute Settlement:

- Encourage the early identification and settlement of disputes through consultation.
- Seek to establish fair, transparent, timely and effective procedures to settle disputes arising under the agreement.

In addition, the CAFTA will take into account other legitimate U.S. objectives including, but not limited to, the protection of legitimate health or safety, essential security and consumer interests.

D. Trade Capacity Building

Trade capacity building (TCB) plays an important role in U.S. trade policy because such capacity building, when successful, can contribute to more beneficial trading relationships and the acceleration of poverty elimination and economic growth in developing countries. To help foster the capacity of the Central American countries to compete in the modern global economy, the U.S.-CAFTA negotiations include a non-negotiating cooperative group on trade capacity building (TCB Working Group) meeting in parallel with the negotiating groups at each round. The TCB Working Group aims to address, to the extent possible, the needs of the CAFTA countries during the negotiation, throughout implementation of the agreement and during the countries' transition to free trade.

Over 10 U.S. government agencies, including the U.S. Agency for International Development, the Departments of Labor and State and the U.S. Environmental Protection Agency, comprise the U.S. team at these meetings. Multilateral participants include the Inter-American Development Bank, the World Bank, the Organization of American States, the U.N. Economic Commission for Latin America and the Central American Bank for Economic Integration. The Administration is also seeking to expand the circle of resource partners to include non-governmental organizations, corporate sponsors and private foundations. *See* 68 Fed. Reg. 24,531 (May 7, 2003). The Humane Society of the United States, leading a group on non-governmental organizations including Counterpart International, Humane Society International, Earth Council Costa Rica, and EarthVoice, has joined our efforts and established the CAFTA Alliance for Trade Capacity Building to provide technical assistance. In addition, the private sector established the Business Coalition for Capacity Building on July 18, 2003.

III. SCOPE OF THE ENVIRONMENTAL REVIEW

To determine the scope of this review, the Administration considered information provided by the public, advice of USTR's advisory committee on trade and environment issues, the Trade and Environment Policy Committee (TEPAC), and input from environmental, trade and investment experts within federal agencies. In addition to providing guidance on the scope of the environmental review, any information, analysis, and insights available from these sources are being taken into account throughout the negotiating process and are considered in developing U.S. negotiating positions. As envisaged by the guidelines, environmental reviews are an ongoing process to examine environmental issues and inform the negotiating process. This document describes the results of this process at this interim stage.

Section III.A describes the process used to solicit comments and advice on the scope of the environmental review, including a summary of the comments received. Section III.B discusses the possible direct impacts of the CAFTA on the U.S. environment resulting from prospective changes in the U.S. economy. Section III.C describes a number of environmental issues associated with possible transboundary effects of the CAFTA. Although possible domestic impacts are the primary concern of this environmental review, global and transboundary impacts are to be considered as appropriate and prudent.⁶ Section III.C describes possible effects on the U.S. environment resulting from economic effects in Central America and shared ecosystems. Section III.D considers the extent to which the CAFTA might affect U.S. environmental laws, regulations, policies and/or international commitments.

⁶ See section I.B, above.

A. Public and Advisory Committee Outreach and Comments

This review was formally initiated by publication of a notice in the *Federal Register*, which requested public comment on the scope of the review. *See* 67 Fed. Reg. 70,475 (Nov. 22, 2002). The Administration also requested public comments on all aspects of the negotiations and held a public hearing to discuss issues raised in connection with the CAFTA, including environmental issues (*see* 67 Fed. Reg. 63,954, October 16, 2002). Comments and testimony addressing environmental issues received in response to that notice were taken into account in the preparation of this Interim Review.

Public commentators identified several environmental issues to be examined in connection with the proposed CAFTA. All of the comments focused on the possible global and transboundary effects: that is, direct effects in Central America and effects on the U.S. environment through shared ecosystems (air and water pollution, for example) and migratory species. A few comments suggested that any direct effects of the CAFTA on the U.S. environment are likely to be small. *See* Annex III for a list of organizations that provided comments.

Concerning possible environmental effects in Central America, issues raised in the comments included deforestation, ecosystem degradation (with an emphasis on effects on habitat), over-exploitation of natural resources (both land- and marine-based resources) and air and water pollution. A number of comments called attention to the need for greater attention to conservation and environmental protection in the region and the fact that there are many threats to Central American biodiversity. A number of comments also focused on the region's wildlife and wildlife products, including endangered species, and the possible effects of the CAFTA on trade in these species.

A number of commentators recommended including commitments in the CAFTA on the part of each country to enforce its environmental laws, to strengthen environmental standards and to include core environmental obligations in the body of the trade agreement.

B. Potential Economically-Driven Environmental Impacts

Although the economies of Central America represent important markets for some U.S. producers and exporters, the impact of the CAFTA on total U.S. production through changes in U.S. exports appears likely to be very small. Exports to Central America currently account for 1 percent of total U.S. exports and a very small portion of total U.S. production. Even if substantial increases in U.S. exports of agricultural and industrial goods to Central America are the result of the CAFTA's reductions in market access barriers, these increases in U.S. production will represent a very small change in the aggregate U.S. economy. Although small changes in production and exports in environmentally-sensitive sectors could provide a basis for concern regarding the CAFTA's direct environmental effects in the United States, there were no

examples of such concerns raised either in public comments or in interagency analysis. The Administration welcomes public comment on this preliminary finding of *de minimus* direct impacts on the U.S. environment.

Liberalization of services can be expected to have an economic impact in the United States although here, too, the effect of the CAFTA is likely to be small, and we could not identify any environmentally sensitive sectors in the United States likely to be affected by such impacts. The United States already allows substantial access to foreign service providers, including in environmentally sensitive areas (*e.g.*, tourism, maritime shipping and services incidental to energy distribution).

As compared to its effects in the United States, the CAFTA may have relatively greater impacts on the economies of Central America and, through those impacts, on the environment of Central America. As described above (see section II.A), trade, especially with the United States, is an important factor in economies of all of the countries in the region. However, nearly three-fourths of the region's exports to the United States already enter duty-free as a consequence of the Caribbean Basin Initiative and other programs providing for preferential treatment.

The environmental effects of the CAFTA may be both positive and negative in the CAFTA countries. The CAFTA may increase investment, trade and production in the region, which may be associated with further pressure on the environment. On the other hand, proposed commitments in the CAFTA, such as those to effectively enforce environmental laws, may have a positive effect, especially when coupled with capacity-building and environmental cooperation activities. The CAFTA also is likely to contribute to increases in per capita income and, through this, to greater demand for environmental regulation within the region over time. The Administration continues to examine the scale and importance of these possible effects and invites public comments on these preliminary findings.

C. Transboundary and Global Issues

While the environmental impacts of expected economic changes in the United States attributable to the CAFTA are expected to be minimal, the Administration examined a large number and wide variety of environmental issues with potential global and transboundary impacts in determining the scope of this review. While some of these issues were raised through public comments (see section III.A), many were provisionally identified through an open-ended scoping process among agencies with environment, trade and economic expertise. We subsequently eliminated a number of these topics from further and more detailed analysis based on initial findings that there was no identifiable link to the CAFTA. The following issues warranted further consideration.

1. Migratory Birds

Migratory and resident species of birds are a critically important global resource. In the United States and in Central America, birds pollinate flowers, remove insect pests and weed seeds from many important commercial food crops and forest product species, and are a critical component of nature-based tourism that generates hundreds of millions of dollars in economic activity. Bird watching is one of the fastest growing hobbies in the United States, enjoyed by one-quarter of the population.⁷ Nevertheless, many bird species face both direct and indirect threats to survival (for example, loss and/or degradation of habitats, poisoning by pesticides and contaminants, sterility, immune systems problems and developmental disorders), most of which are human-caused.

In the United States, 836 migratory bird species are currently protected under the Migratory Bird Treaty Act (MBTA), of which some 350 neo-tropical migratory species (mainly songbirds) migrate through or are winter residents in Costa Rica, El Salvador, Guatemala, Honduras and Nicaragua. Raptors, waterfowl, shorebirds, waders, hummingbirds and other species also migrate through or over-winter in Central America. Of the MBTA-protected species, 131 are currently listed by the U.S. Fish and Wildlife Service as Birds of Conservation Concern 2002 (increasing from 124 when the list was last published in 1995). In addition, the number of birds listed in the U.S. Endangered Species Act (currently 77 endangered and 15 threatened species) continues to grow. Many of these are species found in Central America.

Deforestation (including clearing for agricultural production and development) and forest degradation (including unsustainable timber production) are among the greatest threats to birds and their habitats in Central America. Although forests cover more than half of the land area of Central America, all of the countries in the region face high rates of deforestation (see Table 3, Annex IV). Factors affecting habitat for migratory birds (primarily forests) have been identified as a critical area of concern.

The tariff provisions of the proposed CAFTA are not likely to have an impact on migratory bird habitat because applied tariffs on most products linked to deforestation and forest degradation are low or at zero. It is more difficult to predict the effects of potential increased investment attributable to the CAFTA (for example, possible increased investment in sectors such as agriculture whose activities may contribute to loss of migratory bird habitat). Nevertheless, there may be opportunities to address migratory bird issues in connection with CAFTA, for example through cooperative activities. Recent cooperative activities address a number of concerns related to migratory birds (see Annex II). The Administration welcomes public comments on the manner in which these issues might be addressed in the context of the proposed CAFTA or through other mechanisms, including public views on possible areas for cooperative activities.

⁷ See: Cordell, H. Ken and Nancy G. Herbert, "The Popularity of Birding is Still Growing", *Birding* 34, 54-61, February 2002.

2. Wildlife Conservation and Trade

Public comments and interagency review identified the possible effects of the CAFTA on wildlife, including endangered species, as a topic meriting further examination. Wildlife may be affected by the CAFTA through changes in trade (an increase in harvesting of wildlife for export) or through the loss or degradation of habitat due to economic activities stimulated by trade.

Threats to Habitat

Deforestation, and subsequent loss of wildlife habitat is a concern throughout Central America. Costa Rica is renowned as a country that protects its natural resources, but deforestation is a continuing challenge. Since 1954, roughly half of Costa Rica's forests have been cleared. In addition, nature-related tourism is gradually encroaching on some wild areas, forcing wildlife deeper into the forests.

Between 1990 and 2000, El Salvador had the highest rate of deforestation of its Central American neighbors (see table 3, Annex IV). Only a small fraction of El Salvador's original forest cover remains, an amount that may be insufficient to provide diverse forest ecosystems and wildlife habitat. Deforestation, primarily for agriculture, has also resulted in increased soil erosion. Hunting for food and wild pet trade and the introduction of alien species are further sources of pressure on El Salvador's wildlife.

Northern Guatemala is the core of the Mexico-Guatemala-Belize Tri-National Selva Maya, the largest contiguous undeveloped rainforest in Central America. Tikal National Park is a UNESCO World Heritage Site. Designations of parks and protected areas have been complemented by efforts to link conservation and sustainable rural development such as in the Maya Biosphere reserve protected area complex.⁸ Guatemala's environmental challenges, including water pollution and deforestation, are more acute in the densely populated central highlands, in part due to poverty. In the past decade, forest loss averaged nearly 2 percent per year, most through conversion to agricultural use. Based on current rates of deforestation, 40 percent of Guatemala's amphibian species may disappear in the next few years.⁹

In Honduras, protected areas include 18 National Parks, 25 biological reserves and 27 wildlife refuges, but account for only 6 percent of the total land area of the country. In addition, protecting the integrity of designated reserves remains a continuing challenge. As a result, deforestation and habitat destruction are significant threats to many species, including several Central American frog species. Similar concerns exist for Nicaragua, which has the second-highest rate of deforestation in Central America (see table 3, Annex IV).

⁸ This effort is supported by USAID; see Annex II, section B for information on additional cooperative activities.

⁹ *Financial Times*, November 23, 2002.

Wildlife Trade and CITES

Table 6 (Annex IV) summarizes recent data on the value of wild plant and animal trade between the United States and Central America. Documented trade in wild plants and animals is relatively small and the majority of this trade is regulated under the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES).¹⁰ U.S. imports of queen conch (*Strombus gigas*) from Honduras (listed on Appendix II of CITES) account for most of the value of U.S.-Central American trade in wild plants and animals. CITES Appendix II includes species for which trade must be regulated to avoid utilization incompatible with their survival in the wild. Decisions to list species on either Appendix I or Appendix II are based on proposals to the Conference of the Parties, with accompanying scientific and biological data on population and trade trends, and require a two-thirds majority vote.

The United States and all of the countries of Central America are Parties to CITES. In the United States, CITES is implemented through the Endangered Species Act of 1973 (ESA); the ESA provides protection that goes beyond obligations under CITES including, in some cases, for species with ranges outside the United States. However, ESA protections for species found outside U.S. jurisdiction are relatively limited, and principally include prohibitions on sale or commercial activity by U.S. citizens abroad. In the United States, the ESA prohibits import, export, taking, or selling in interstate commerce of any protected species.

Implementation of CITES is generally considered to be good in Central America, despite limited resources. Honduras, however, has been placed in Category 2 by the CITES National Legislation Project. Although Honduras has been a party to CITES since 1985, Category 2 is the designation for a country with national legislation that may not meet all requirements for effective implementation of CITES. The CITES Secretariat has advised Honduras that it should take steps to adopt adequate legislation by 31 December 2003 or further measures (which could include restrictions on commercial trade) could be required.

Generally, U.S. tariffs on wild plants and animals imported from Central America are already low; as a consequence, it appears unlikely that the FTA will cause an increase in wildlife trade. Given the legal protections in place in each country, it also appears unlikely that the FTA will cause an increase in illegal trade of wildlife or endangered species. Trade in CITES-listed species requires the exporting country to certify that export was not detrimental to the survival of the species. Trade in any CITES species by a CAFTA country must also be in accordance with the ESA and the regulations implementing CITES in the United States.¹¹

Trade in queen conch, however, is a subject of some concern. Queen conch is a large marine gastropod (snail) that is a significant commercial fisheries resource. Most Central American

¹⁰ See Annex IV, table 6; wildlife trade accounts for less than 0.1 percent of total goods trade between the United States and Central America.

¹¹ Requirements include filing of declarations with the U.S. Fish and Wildlife Service, Office of Law Enforcement.

queen conch exports originate in Honduras; the United States is the world's largest consumer of queen conch and receives 40 percent of its conch meat from Honduras. There is some question, however, as to whether Honduran waters are biologically capable of producing the quantities currently exported, creating uncertainty as to whether these high volumes of conch originated in Honduran waters. Some allegations suggest that illegally fished conch from the waters of surrounding countries are being exported from Honduras.¹² If true, this would be illegal under existing CITES requirements and U.S. legislation (the ESA and the Lacey Act).

In general, concerns related to CITES-regulated species are appropriately addressed within the framework of CITES and through cooperation between the U.S. CITES Management Authority (the U.S. Fish and Wildlife Service) and the Honduran Management Authority.¹³ The CAFTA may provide opportunities to reinforce these efforts through additional cooperative activities and proposed commitments to effectively enforce environmental laws.

Possible Effects of the CAFTA

We are also examining the possibility that the CAFTA could affect wildlife through changes in production in industries that affect wildlife or wildlife habitat (see additional discussion in section III.C.1 for issues related to migratory birds). The CAFTA is not expected to have significant effects on the U.S. economy; therefore, we do not expect the CAFTA to have a direct effect on the U.S. environment, including wildlife and wildlife habitat. The CAFTA could affect wildlife in Central America through effects on sectors whose production may destroy or degrade habitats. Public comments drew particular attention to the CAFTA's possible effects on agricultural production.

Historically, clearing for agriculture has been the primary cause of deforestation in all of the CAFTA countries. Agricultural products currently account for a significant share of Central American exports to the United States. With the exception of sugar, however, U.S. tariffs on Central American agricultural products are already low. While it is not possible to provide detailed projections of changes in investment, production and trade at this stage of negotiations, it appears unlikely that the CAFTA will lead to an expansion of agricultural production in Central America. Shifts may occur within the agricultural sector, but these do not appear likely to contribute additional pressure to the forests of the region.

U.S. tariffs on other products that are likely to affect wildlife habitat (such as fisheries, forest products and mining) also are low. Therefore, the CAFTA is not expected to significantly alter existing patterns or levels of Central American production and exports to the United States. Given the legal protections for wildlife and endangered species in place in both the United States

¹² See <http://www.cites.org/eng/ctee/animals/19/E19-08-3.pdf>

¹³ For example, queen conch was first selected for the CITES Review of Significant Trade in 1995. The species was selected to be reviewed again during phase V of this process. For further information see: <http://www.cites.org/eng/ctee/animals/19/E19-08-3.pdf>

and Central America, it appears unlikely that the CAFTA will contribute to an increase in illegal trade of wildlife or endangered species. In fact, proposed provisions related to customs cooperation may help to reduce illegal trade. The Administration welcomes public comments on these preliminary conclusions and the possible effects of the CAFTA on wildlife in the United States and Central America.

3. Shrimp/Turtle

Seven species of sea turtles are currently included on CITES Appendix I, and all appear in the International Union for the Conservation of Nature (IUCN) Red Data List of threatened species where two species are listed as critically endangered. All sea turtles are protected by the U.S. ESA. Sea turtles have been affected by a variety of human activities (exploitation for meat, eggs and shells, as well as being affected by sea pollution), but one of the main threats to their survival is incidental mortality in nets used by shrimp trawlers. In response, the U.S. Government issued voluntary guidelines in 1987 and, subsequently, a mandatory requirement that domestic shrimp trawlers use turtle-excluder devices (TEDs) in their nets. These devices allow larger animals to escape the nets and significantly reduce turtle mortality in shrimp fishing. Starting in 1989, the United States extended turtle conservation efforts to include other shrimp-producing countries in the wider Caribbean/western Atlantic region, with the objective of reducing incidental mortality to rates comparable to those of the U.S. domestic fishery. The Inter-American Convention for the Protection and Conservation of Sea Turtles (IASTC) entered into force on May 2, 2001. The United States, Brazil, Ecuador, Honduras, Mexico, the Netherlands, Venezuela, Peru and Costa Rica, all joined as parties to the Convention.

Shrimp trawl fishing in all Central American countries poses threats to sea turtles. Section 609 of Public Law 101-162 requires the Department of State to make annual certifications to the Congress for countries that meet the requirements of Section 609 in terms of sea turtle protection for commercial shrimp trawl fisheries. Any country that is not certified may not export commercially-harvested shrimp and shrimp products to the United States (this import restriction does not affect shrimp and shrimp products from aquaculture or artisanal fisheries). The standard for certification is that the sea turtle protection program in that country must be comparable in effectiveness to the program in effect in the United States. In Central America, this trade restriction has been in place for countries with shrimp fisheries in the Caribbean since the early 1990s, and for countries with Pacific fisheries since 1996.

Certification decisions are based in part on bi-annual verification visits to observe compliance and enforcement, conducted by Department of State and National Marine Fisheries Service personnel. Meeting the standard for certification means adopting a regulatory program for the mandatory use of TEDs and the development of a credible enforcement program to ensure the use of the devices. Currently all Central American countries except Honduras are certified. Certification for Honduras was withdrawn in 2003 due to poor enforcement of Honduran

regulations and the subsequent poor compliance by Honduran fishing industry. A recent verification visit to Costa Rica may affect its certification.

The provisions of the proposed CAFTA will not affect the trade restriction included in Section 609, or the manner in which the Department of State assesses and makes decisions on the effectiveness of foreign governments in their implementation and enforcement of their domestic laws related to protection of sea turtles. The CAFTA does provide an opportunity to reinforce efforts to protect turtles through proposed obligations to effectively enforce environmental laws. The Administration welcomes public comments on these preliminary conclusions.

4. Transboundary Air Pollution

Modeling studies and satellite images provide evidence of significant air pollution transport from Central America to the United States.¹⁴ In addition, analysis of weather patterns reveals that upper air winds in summer months favor transport of airborne pollutants northward to the United States. With no physical barriers (e.g., mountain ranges) to modify or impede them, air masses from Central America have an unobstructed path northward as far as the Great Lakes. Studies using back trajectory modeling confirm that air parcels from the central United States have origins in Central America.¹⁵

Pollution from Fires

In May 1998 smoke from forest fires in Central America and Mexico moved as far north as the Great Lakes and north-central Ontario, as well as into the Southeast United States. EPA and its many partners tracked the aerosol plumes, evaluating the threats to public health as they moved through the United States. In Texas, visibility was reduced to less than 1 mile in many large cities. In the spring of 2003, several major incursions of smoke from agricultural burning in southern Mexico and northern Guatemala caused repeated elevated levels of pollution (especially fine particulates) throughout southern, central and eastern Texas, affecting the health of an estimated 12 million residents. On several days, pollution levels reached "unhealthy" or "unhealthy for sensitive groups" according to EPA's air quality index. These episodes were abnormal in terms of the size of the fires and amount of smoke transported north into the United States. Agricultural burning and clearing of land using fires is common practice in Central America, although some countries in the region are developing policies designed to reduce the frequency and extent of burning. To the extent that fires occur or originate inside protected areas

¹⁴ See R.L. Tanner et al, Impact of the 1998 Central American fires on PM_{2.5} mass and composition in the southeastern United States, *Atmospheric Environment* 35 (2001) 6539-6547; and Texas Natural Resources Conservation Commission, Eastern Texas Smoke, April 29-May 21, 2003, available at <http://www.tnrcc.state.tx.us/updated/air/monops/airpollevents/2003/event2003-04-29txe-a.html>

¹⁵ See: R.L. Tanner et al, *Atmospheric Environment* 35 (2001) 6539-6547; and U.S. Environmental Protection Agency, Region 5, Office of International Activities, Long Range Transport of Persistent Bioaccumulative Toxics from Central America, March 20, 2002.

and are set by illegal activities, enhanced enforcement of conservation regulations could reduce this problem.

On balance, the CAFTA does not appear likely to cause a net expansion of agricultural production in Central America. Even so, the potential transport of pollution from fires in Central America could continue or even increase given the following conditions: no change in the widespread practice of burning agricultural wastes; and no change in the use of fire to clear trees and other vegetation from land.

Transport of NO_x and SO_x.

Nitrogen oxide (NO_x), a precursor of ozone, is a byproduct of combustion; sources include the aforementioned fires as well as the transportation sector and industry (for example, fossil-fuel fired power plants). However, due to their relatively short residence time in the atmosphere, NO_x emissions from Central America are not likely to reach the United States where they could contribute to ozone formation. Sulfur oxide (SO_x) emissions, which result primarily from burning coal and contribute to acid rain, visibility impairment and levels of fine particles, have the potential for longer range transport to the United States from Central American sources. It is not known to what extent SO_x emissions from Central American coal-fired power plants or other fossil fuel combustion sources reach the United States; however, this is at least a possibility (see above for discussion of transport of smoke). For example, preliminary results from the Big Bend Regional Aerosol and Visibility Observational (BRAVO) Study estimate that approximately 25 percent of the sulfate particulates at the U.S.-Mexico border during the summer is due to emissions from Mexico.¹⁶ During seasonal peaks in agricultural burning, the percentage of sulfate particulates is likely to be higher.

Over the past decade, economic growth in Central America has been associated with increases in air pollution. Shifts in sources of electricity generation, as well as projected high rates of growth in electricity consumption in the region may lead to increases in emissions of NO_x, SO_x and other air pollutants in Central America, some of which may be transported to the United States. Although hydropower has historically been the dominant source of electricity generation in the region, the privatization of energy markets (for example, in El Salvador and Guatemala) has prompted the development of thermal generation plants. The growth of thermal generation has decreased hydropower's share of electricity consumption in the region from 80 percent in 1980 to roughly 60 percent in 2000.¹⁷ Projected electricity consumption in Central America is consistent with a region experiencing economic growth and development, and hoping for even more (for

¹⁶ BRAVO is a joint effort of the U.S. EPA and U.S. Department of the Interior, National Park Service; see <http://www2.nature.nps.gov/ard/bravo/>.

¹⁷ U.S. Department of Energy, Energy Information Administration, *Regional Indicators: Central America*, August 2002.

example, through the CAFTA).¹⁸ The CAFTA could contribute to increases in emissions by contributing to the region's economic growth. However, through increased trade in environmental goods and services the CAFTA also may contribute to the use of less-polluting technologies in the region's energy sector.

Transport of Persistent Bioaccumulative Toxics (PBTs)

PBTs (for example, DDT, PCBs, chlordane, mercury, dioxins) have particular significance because they are stable in the environment for long periods, transfer readily between environmental media (air, water, soil), accumulate as they move up the aquatic and terrestrial food chains and are toxic both to humans and wildlife. The warm temperatures of the tropics can cause these substances to volatilize more quickly to the atmosphere and, combined with convection to higher altitudes and relative persistence, enable them to be transported long distances before they are deposited on lakes and land. They have the potential to travel far because they can be re-emitted once deposited, essentially allowing them to "hop" to colder climates, such as the Arctic, where they are less likely to volatilize. Studies have shown that semi-volatile compounds such as hexachlorocyclohexane (HCH) and DDT discharged in the tropics tend to be redistributed on a global scale and that the distribution of atmospheric HCH and DDT shifted in the 1980's from mid to lower (tropical) latitudes.¹⁹ Other studies have shown the Great Lakes to be a receptor of this discharge.²⁰

Sources of PBTs include pesticide use and spills, biomass burning, medical waste incineration and industrial waste. Qualitatively, these sources are easily identifiable. However, more accurate quantification of source emissions from Central America is difficult due to the scarcity of data on use rates, environmental concentrations and emissions. Preliminary research indicates high past and present use of pesticides in Central America and stockpiles of internationally banned or restricted compounds such as DDT and PCBs. The Stockholm Convention on Persistent Organic Pollutants (POPs), a multilateral treaty signed in May 2001 by 90 signatories (as of August 2003 there are 151 signatories, including the United States, Mexico and all Central American countries) addresses the major concerns raised by this subset of PBTs. In the long term, reductions in discharges and atmospheric transport of PBTs from Central America to the United States will depend on these countries ratifying POPs (in the region, only Panama and Mexico have ratified as of the date of this Interim Review) and the efficacy of efforts to limit discharges, phase out uses and dispose of POPs and other PBTs.

The Administration has not identified specific links between the CAFTA and possible changes in

¹⁸ Electricity consumption could increase by more than 3 percent per year for the next two decades (U.S. Department of Energy, Energy Information Administration, *International Energy Outlook 2003*).

¹⁹ Iwata, H., Tanabe, S., "Distribution of persistent organochlorines in the oceanic air and surface seawater and the role of ocean on their global transport and fate." *Environ. Sci. & Technol.* 27, 1080-1098, 1993.

²⁰ Hoff, R.M., Muir, D., "Annual cycle of polychlorinated biphenyls and organohalogen pesticides in the air in Southern Ontario. 2. Atmospheric transport and sources." *Environ. Sci. & Technol.* 26, 276-283, 1992.

production and transfer of PBTs. The CAFTA may contribute to mitigation of pollution through increased trade in and use of improved technologies. In addition, there are a number of efforts to address air pollution in the region through cooperative activities (see Annex II). The Administration welcomes public comments on these issues and related activities.

5. Marine Pollution

Oceanographic transport patterns along the East Coast of Central America and Mexico, and in the Wider Caribbean Basin, flow north along the littoral waters of the Central American Caribbean Coast and then east to the Straits of Florida. These oceanographic patterns hold the potential to transport contaminants and debris from Central America to the Gulf Coast of the United States and the Florida Keys. In contrast, transport to the United States along the Pacific Coast is unlikely because the predominant oceanographic currents flow from north to south.

Significant volumes of marine debris are deposited along the Mexican and Texas coasts as a result of oceanographic currents in the Wider Caribbean Region. The source of this debris is a result of terrestrial activity as well as maritime vessel traffic. While many assume that the sources of marine debris are principally vessels, numerous studies have demonstrated that the majority is a result of land-based activity that results in debris fields being washed to sea.

Suspended sediment flows and the contaminants that adsorb to particulates can travel significant distances. While the sediment flows from Central America may not necessarily reach U.S. coastal waters, the United States could experience secondary effects connected with the alteration of food webs in marine ecosystems linked to populations in the Gulf of Mexico or other U.S. waters. The biodiversity and productivity of some marine systems depend in part on the seasonal influx of invertebrate and vertebrate larvae. Although significant transport of debris and sediments in surface currents has been identified, there is little empirical data to confirm what contaminants are being transported and little information about their residence time, ultimate deposition and ecological effects.

Increases in land clearing and/or agricultural production in the less-developed eastern watersheds of Central America could accelerate soil erosion and increase polluted run-off (such as sediments, nutrients and persistent organic compounds). This would increase existing pollution stress on coastal ecosystems and could also be expected to have adverse effects on regional ecosystems. The most vulnerable coastal resources include components of coral reef ecosystems (mangroves, sea grasses, back reef areas and coral reefs). Of particular concern are possible system-wide effects on the Meso-American Barrier Reef, the second largest barrier reef system in the world, and other coral reef areas adjacent to Central America. However, as discussed above, we have been unable to identify specific links between the CAFTA and changes in land clearing or agricultural production in Central America (see further discussion in section III.C.2—Wildlife Conservation and Trade).

Airborne transport of contaminants from Central America may also affect U.S. marine resources (see discussion of air pollution issues in section III.C.4). Researchers examining reef conditions in the Florida Keys have suggested that persistent compounds that are contributing to reef decline may be originating from air emissions in distant places, including sources in the Wider Caribbean Basin. Recent monitoring has also confirmed the transport of particulates originating in Africa to the Caribbean and areas of the Eastern United States. Modeling studies and satellite images provide evidence of air pollution transport from Central America. The initial deposition from this airborne plume would generally land in the waters of the Gulf of Mexico.

There are opportunities to address marine pollution concerns through cooperative activities. The Administration welcomes public comments on such efforts.

6. Tourism

Tourism has the potential to introduce new environmental stresses, as well as to create opportunities for sustainable development. It is an integral element of Central America's efforts to diversify and strengthen its economic base. In Costa Rica, the commerce and tourism services industries account for a substantial share of total GDP; revenue from tourism was \$1.28 billion in 2001. Guatemala's tourism sector amounts to \$500 million annually, now earning more than coffee. Honduras' services sector contributes 50 percent to GDP. Foreign receipts from tourism represent 10 percent of Honduras' export earnings totaling an estimated \$300 million in tourism receipts. The tourism sector also helped boost the economy by generating 34,207 new jobs. El Salvador is the third most visited country within the region and receives \$254 million in tourism revenue. Receipts from international tourism in Nicaragua (a popular destination for cruise stops) exceeded \$100 million in 2001.²¹

Expansion of tourism-based development adds pressure and contributes to degradation of the environment of Central America. The most significant tourism-related threats to the environment include land development (affecting terrestrial and especially coastal ecosystems such as mangroves), pressure on marine resources and habitats, air pollution, water pollution and solid waste disposal. Coastal development contributes to soil erosion, land degradation and loss of wildlife habitats, and water demand for hotels and swimming pools adds pressure on limited supplies of fresh water. Further threats to wildlife result from souvenir trade.

At the same time, Central America's environment is an important factor in attracting tourists to the region and thus justification and motivation for conservation. Visits to rain forests, lowland jungles, beaches (on two coasts) and coral reefs account for 25 percent of visitors to Central America.²² Costa Rica is regarded as one of the world's leading destinations for environment-

²¹ Data are taken from *Travel Industry World Yearbook*, 2002. See: <http://www.travelbigpicture.com/>.

²² Ibid.

related tourism and has emerged as a global leader in conservation and developing innovative environmental initiatives. Eco-tourism adds approximately \$700 million to GDP, making it the second largest industry behind bananas; as a whole, the tourism industry now earns more foreign exchange than bananas and coffee combined.²³

While these eco-tourism activities can cause degradation of marine ecosystems through physical damage, pollution and commercial harvesting for sale to tourists, eco-tourism has also contributed to environmental conservation and preservation as well as economic development. In addition to increasing interest in eco-tourism, the concept of sustainable tourism is attracting the attention of both the private sector and governments.

To date, we have not identified any significant restrictions on tourism services in the CAFTA countries, and therefore are not aware of potential direct impacts of the CAFTA on the tourism sector in Central America.²⁴ CAFTA investment provisions could lead to increased investments in the tourism sector in Central America, although this is difficult to predict and analyze given the complex mix of considerations that shape such business decisions. The negotiation of the CAFTA may provide opportunities, however, to build on existing cooperative activities to encourage tourism development that is consistent with protection of cultural and natural resources. (See Annex II for more information on cooperative activities.)

D. Potential Regulatory Impacts

Consistent with EO 13141 and its Guidelines, this review includes consideration of the extent to which the CAFTA might affect U.S. environmental laws, regulations, policies and/or international commitments. CAFTA negotiators are aware of the need to preserve the U.S. government's ability to maintain strong environmental laws and regulations and an effective process for enforcing them. As the CAFTA negotiations proceed, negotiators will continue to focus on this important objective.

Within the realm of FTA obligations, those related to investment, services, sanitary and phytosanitary (SPS) measures and technical barriers to trade (TBT) can have particular significance for domestic regulatory practices concerning the environment, health and safety. Previous environmental reviews, including the preliminary and final reviews for the Jordan, Chile and Singapore FTAs, have considered potential impacts on the U.S. regulatory regime with respect to all of these obligations and have found that the respective trade agreements were not anticipated to have a negative impact on U.S. legal or regulatory authority or practices. Further, in all cases, the reviews noted the potentially positive impact that the FTAs could have on the U.S. environmental regulatory regime as a result of FTA commitments to effectively enforce

²³ Ibid.

²⁴ The CAFTA is not expected to have any impact on tourism services in the United States because the U.S. market for such services is already open.

U.S. environmental laws, not to weaken U.S. environmental laws to attract trade or investment and to ensure that U.S. environmental laws and policies provide for high levels of environmental protection.

Based on this previous analysis, and assuming that the core obligations in these areas will be similar to those undertaken in the previous FTAs (available on the USTR website at www.ustr.gov), the Administration does not expect that the CAFTA will have a negative impact on the ability of U.S. government authorities to enforce or maintain U.S. environmental laws or regulations. We welcome comments on this preliminary finding.

For a more in depth analysis of general FTA commitments and their potential regulatory impacts in the United States, please see the preliminary and final reviews for Jordan, Chile and Singapore FTAs at <http://www.ustr.gov/environment/environmental.shtml>.

IV. ENVIRONMENTAL COOPERATION

The Trade Act of 2002 establishes that a principal negotiating objective of the United States is to strengthen the capacity of our trading partners to protect the environment through the promotion of sustainable development. In addition, the Trade Act instructs negotiators to seek to establish consultative mechanisms among parties to trade agreements to strengthen the capacity of U.S. trading partners to develop and implement standards for the protection of the environment and human health based on sound science. Environmental cooperation is expected to be an important complement to the environmental provisions of the FTA.

The United States and the five Central American Parties already work together collectively and on a bilateral basis to address environmental issues through a number of ongoing programs (see Annex II). In 1994, the United States and the seven Central American countries (the CAFTA countries plus Panama and Belize) signed the Central American - USA Joint Declaration (CONCAUSA). CONCAUSA originally provided a framework for regional cooperation in four areas: conservation of biodiversity, sound use of energy, environmental legislation and sustainable economic development. In 2001, climate change and disaster preparedness were added to the work plan.

While CONCAUSA is the broadest cooperative environmental framework linking the U.S. Government directly with Central America, the Parties also work together extensively through other mechanisms such as the Organization of American States, Inter-American Development Bank, Summit of the Americas, UN Environment Program and the World Bank. U.S. agencies have several regional and bilateral programs with the CAFTA Parties, principally under the auspices of the Agency for International Development, the Department of Commerce, the Department of the Interior, the Department of State, the Environmental Protection Agency and the National Aeronautics and Space Administration. Annex II summarizes the major cooperative

activities supported by these agencies.

There is a general consensus among the Parties that a new framework for cooperative activities between the United States and the five Central American Parties would help protect, improve, and conserve the environment. An important element of this framework could be public participation in the cooperative work, including public-private partnerships. While the Parties are establishing this framework, they are also exploring whether there are immediate environment-related needs that could be addressed in connection with the work of the TCB Working Group. The Administration welcomes public comments on the general approach to cooperation in the context of the CAFTA, as well as objectives and priorities for cooperative activities.

ANNEX I—Environmental Legislation in the CAFTA Countries

Costa Rica

Costa Rica has a full complement of domestic environmental legislation, including the passage of its Organic Law on the Environment in 1995. The Ministry of Environment and Energy (MINAE) drafts, plans and implements policies on natural resources, energy, mining and environmental protection. A 1994 law created the post of Environmental and Maritime Land Attorney. Its functions include taking legal action to guarantee constitutional right to a healthy and ecologically sounds environment, and to ensure the enforcement of international treaties and national legal framework in this field.²⁵

Costa Rica is a party to 68 multilateral, regional and bilateral environmental agreements, including the U.N. Convention on Biological Diversity (CBD), the Convention on International Trade in Endangered Species of Wild Flora and Fauna (CITES), the U.N. Framework Convention on Climate Change (UNFCCC) and the Kyoto Protocol, the Montreal Protocol on Substances that Deplete the Ozone Layer (Montreal Protocol), and the Basel Convention on the Control and Transboundary Movements of Hazardous Wastes and Their Disposal (Basel Convention), and is a signatory to the Rotterdam Convention on Prior Informed Consent for Certain Hazardous Chemicals and Pesticides in International Trade (PIC), the Cartagena Protocol on Biosafety (Biosafety Protocol) and the Stockholm Convention on Persistent Organic Pollutants (POPs).²⁶

El Salvador

El Salvador also has a full complement of domestic environmental legislation and passed its general law on the environment in 1997, within which the Ministry of Environment and Natural Resources (MARN) drafts, plans and implements conservation and natural resource use policies and legislation. Environmental divisions exist within both the General Attorney's and Public Prosecutor's offices, which control respect for rights of the individual and interests of the State.²⁷

El Salvador is a party to 51 multilateral, regional and bilateral environmental agreements, including the CBD, CITES, UNFCCC, the Montreal Protocol, POPs, the Basel Convention, the Kyoto Protocol and PIC and is a signatory to the Biosafety Protocol.²⁸

²⁵ "Nature, People and Well Being: Mesoamerica Fact Book." Partners and Donors Conference, Mesoamerican Biological Corridor. Paris, France, December 12-13, 2002. University of Costa Rica Development Observatory and the Central American Commission for Environment and Development.

²⁶ Environmental Treaties and Resource Indicators database. Center for International Earth Science Information Network (CIESIN) website. <http://www.ciesin.org>. Downloaded July 17, 2003.

²⁷ CCAD 1998.

²⁸ CIESIN, 2003.

Guatemala

Guatemala has not passed a wide spectrum of environmental laws, and lacks specific laws dealing with the major issues of water, forests, solid wastes, biodiversity, etc. that many of the other countries possess. However, Guatemala does have a forestry law dating from 1996 and a general Law for Environmental Protection and Improvement, passed in 1986. Under the latter, the National Commission for the Environment (CONAMA) depended directly on the Presidency and utilized a technical advisory council for advising and coordinating activities for the drafting of national environmental protection and improvement policies. CONAMA has been succeeded by the Ministry of Environment and Natural Resources (MARN). An Environmental Attorney exists within the Human Rights Commission and is charged with ensuring compliance with related constitutional articles. There is also a National Strategy for Conservation and Sustainable Development of Biodiversity that has broad support, although implementation is inconsistent.²⁹

Guatemala is a party to 57 multilateral, regional and bilateral environmental agreements, including the CBD, CITES, UNFCCC, the Montreal Protocol, the Basel Convention and the Kyoto Protocol and is a signatory to POPs. Guatemala has not signed or ratified the PIC or the Biosafety Protocol.³⁰

Honduras

Honduras also has a more limited slate of domestic environmental legislation, although it includes forest and biodiversity laws. Honduras passed a General Law on the Environment in 1993. The Secretary of Natural Resources and the Environment (SERNA) ensures compliance with environmental laws, drafts and coordinates national environmental policies and has a national consultative council, an advisory technical committee and an environmental attorney's office. This same law created the post of the Environmental Attorney within the General Attorney's Office, which is the administrative and legal representative of State interests in the environment.³¹

Honduras is a party to 54 multilateral, regional and bilateral environmental agreements, including the CBD, CITES, UNFCCC, the Montreal Protocol, the Basel Convention and the Kyoto Protocol, and is a signatory to the Biosafety Protocol and POPs. Honduras has not signed or ratified the PIC.³²

Nicaragua

²⁹ CCAD, 1998.

³⁰ CIESIN, 2003.

³¹ CCAD, 1998.

³² CIESIN, 2003.

Nicaragua has extensive domestic environmental legislation covering all the major areas, similar to Costa Rica and El Salvador, with a general law on the Environment and Natural Resources passed in 1996. The Minister of Environment and Natural Resources (MARENA) regulates national policy on natural resources and the environment and controls planning, administration, research, management and rational use of these natural resources. This same law created the post of the Attorney for the Defense of the Environment and Natural Resources within the General Attorney's Office, who represents and defends interests of the State and society on environmental issues and is party in suits for violations of environmental laws.

Nicaragua is a party to 57 multilateral, regional and bilateral environmental agreements, including the CBD, CITES, UNFCCC, the Montreal Protocol and the Kyoto Protocol, the Basel Convention and PIC, and is a signatory to the Biosafety Protocol and POPs.³³

³³ CIESIN, 2003.

ANNEX II—Selected Recent Environmental Cooperation Activities with the CAFTA Countries

This annex provides examples of recent environmental cooperation activities between agencies of the U.S. Government and partners in Central America. Although substantial and illustrative of the number and variety of cooperative activities, the list is not exhaustive. Further information on these activities is available from the respective agencies.

A. Department of State

1. CONCAUSA Action Plans

The United States, Belize, Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua and Panama reached consensus in March 2002 on the Action Plans of the Central American-United States Joint Declaration (CONCAUSA) as called for in the expanded and renewed CONCAUSA Declaration signed on June 7, 2001, in Washington D.C. by Secretary of State Colin Powell and his Central American counterparts. CONCAUSA demonstrates U.S. support to the Central American region, strengthens U.S./Central American relations and supports sustainable development in Central America through increased competitiveness in global markets and improved environmental management. CONCAUSA is implemented through several USG agencies, with USAID playing a central role.

2. Transboundary River Basin Initiative: Sustainable Use and Rehabilitation of the Río Frío Sub Basin in Costa Rica and Nicaragua

The US/UN Development Program (UNDP) Transboundary River Basin Initiative (TRBI) involves the largest transboundary sub basin in the San Juan River Basin, the Río Frío watershed (RFWS). The objective of the project is to encourage local governments, communities, NGO's and businesses on both sides of the border to work collectively to address the critical environmental stresses in the Río Frío basin and insure the long-term sustainability of the fresh water resource, as well as to promote security and environmental cooperation in the Central American isthmus, and contribute to the easing of tensions between the Governments of Costa Rica and Nicaragua. The project started in July of 2001 and continued through 2002.

3. Wildlife Population Viability in Conservation

The Department of State collaborated with the Costa Rican NGO FUNDAZOO in the organization of a workshop on "Concepts and Tools for Analyzing Wildlife Population Viability in Conservation" held in San Jose on November 26-30, 2001.

4. Promotion and implementation of POP's and PIC Conventions in Central America

The Department of State organized a program in 2002, in which U.S. Environmental Protection Agency (EPA) experts conducted half-day workshops in Nicaragua, Honduras and Costa Rica focused on the implementation of the Stockholm Convention on Persistent Organic Pollutants (POPs) and the Rotterdam Convention on Prior Informed Consent (PIC).

5. Sustainable Development in Costa Rica: Building Capacities for Eco-planning, eco-efficiency and social responsibility

From August 6-9, 2002, three private-sector experts from the U.S. led a seminar in Costa Rica focused on developing capacity to achieve environmental, social and business performance objectives. The State Department sponsored the seminars in connection with activities relating to Sustainable Development (SD) and the World Summit on Sustainable Development (WSSD). The seminars were organized by the US Embassy in San Jose, in collaboration with ECOGLOBAL Advisors for Sustainable Development, a private business firm in San Jose, and other local partners.

6. Inter-American Sea Turtle Convention: First Conference of the Parties

The Inter-American Convention for the Protection and Conservation of Sea Turtles (IASTC) entered into force on May 2, 2001. The United States, Brazil, Ecuador, Honduras, Mexico, the Netherlands, Venezuela, Peru and Costa Rica, all joined as parties to the Convention. The Department of State and the Costa Rican Ministry of Environment and Energy worked together to organize the First Conference of the Parties (COP1), which was held in San Jose on August 6-8, 2002.

7. Costa Rica - Department of State and US Department of Agriculture: Genetically Modified Organisms

In response to the request of the National Technical Committee on Biosafety of the Ministry of Agriculture, for assistance in accessing and understanding the U.S. Government scientific and regulatory procedures on Genetically Modified Organisms (GMOs), the State Department arranged with the Department of Agriculture to bring a USG Science Fellow to work in Costa Rica from August 5 to September 5, 2002 to help the Committee address issues such as genetic engineering in plants, environmental impacts of GMOs, and analysis of environmental risk evaluation protocols.

8. Invasive Species - Department of State and World Conservation Union

On June 10-13, 2001, the Department of State co-sponsored the Mesoamerica and the Caribbean workshop on Invasive Species along with the World Conservation Union (IUCN). This

workshop brought together representatives from 18 different countries in the region to share information concerning invasive alien species and their social-economic and environmental impact. The event promoted a better understanding on the nature and implications of the effects of the presence and spread of invasive species and it helped to foster greater collaboration within the Mesoamerican and Caribbean regions.

9. Environmental Diplomacy in Central America and the Caribbean

The Department of State, in conjunction with the Centre for Environment and Development at the University of the West Indies in Jamaica, developed a project to encourage greater communication between the principal environmental institutions and agencies in Central America and the Caribbean. On March 13-15, 2002, a workshop was held in Belize to explore collaboration between representatives from Ministries of Environment, the Central American Commission on Environment and Development (CCAD), the Caribbean Community Political Body (CARICOM), the United Nations Environment Program (UNEP), the U.S. Environmental Protection Agency (EPA), and the Department of State's Regional Environmental Hub. The meeting established a foundation for the sharing of critical research, policy tools and inter-regional activities between Central America and the Caribbean. Representatives from both CCAD and CARICOM met during the past World Summit on Sustainable Development held in September 2002 in Johannesburg to discuss further cooperation activities.

10. The International Network for Environmental Compliance and Enforcement (INECE) Sixth Conference in Costa Rica

Environmental enforcement officials from up to 80 countries gathered April 15-19 2002 in San Jose, Costa Rica, to design more effective strategies for enforcing the world's environmental laws. The meeting was organized by the International Network for Environmental Compliance and Enforcement, with the cooperation and assistance of the U.S. Environmental Protection Agency, the U.S. Department of Justice, the Regional Environmental Hub for Central America and the Caribbean, as well as the Dutch Embassy, the United Nations Environment Programme, the European Commission, the World Bank, and the North American Commission for Environmental Cooperation, the Government of Canada's environment ministry, and the Center for International Environmental Law.

11. Tropical Forest Conservation Act In El Salvador (State, Treasury and USAID)

The Tropical Forest Conservation Act (TFCA) was enacted in 1998 to offer eligible developing countries options to relieve certain official debt owed the U.S. while at the same time generating funds to support local tropical forest conservation activities. The El Salvador TFCA agreement was signed in 2001 as a debt reduction/rescheduling that treated \$7.7 million of USAID and PL-480 debt in return for GOES payments of \$14 million in debt savings over 26 years into an

account under the existing El Salvador Enterprise for the Americas Initiative Fund (FIAES). The first payment to the TFCA account was made October 24, 2001. In 2002 the Fund made grants totaling \$195,068 to local NGOs for nine projects to improve management of protected forest areas.

B. U.S. Agency for International Development

1. Enterprise for the Americas Initiative (EAI) in El Salvador (Treasury and USAID)

Under the EAI, initiated in 1991, debt obligations to the U.S. Government in qualifying Latin American countries may be reduced to advance economic and investment reform, support democracy, and generate local resources to support environmental, child development and child survival projects, especially ones with environmental dimensions. Under the terms of an EAI agreement, the beneficiary country deposits debt savings into a fund administered by a board with a majority of NGO and community representatives. The board makes competitive grants from the fund to eligible recipients to support activities that link the conservation and sustainable use of natural resources with local community development. It also makes grants to child survival and other child development activities.

The Enterprise for the Americas Initiative Fund, El Salvador (FIAES) was created in December 1992. This agreement reduced approximately \$464 million of USAID and P.L. 480 debt, leaving about \$150 million to be repaid. Interest on the remaining debt, projected to be about \$41.2 million over a 20-year period, is to be managed by FIAES and used for environmental conservation and child survival projects. FIAES began operating in December 1993. As of October 2002, FIAES had funded 436 projects totaling \$30.6 million to over 200 different NGOs and community development associations (ADESCOs). These projects focused on reforestation, management of protected areas, and soil and water conservation. Many projects included environmental education, community participation, and gender themes. More than 89 thousand women and children have benefited from 21 child survival and child development projects.

2. The Environmentally Sustainable Trade Project

The Environmentally Sustainable Trade Project is designed to make eventual trade agreements with countries in Latin America and the Caribbean, including Central America, more environmentally sound by realistically addressing the environmental challenges and opportunities that arise when trade barriers fall. The project is implemented by a consortium, consisting of the Organization of American States (OAS), Tulane Institute for Environmental Law and Policy (Tulane), the North-South Center, and the World Resources Institute, which carries out both research and analysis and dialogue and capacity building in OAS Member Countries. In the area of research and analysis, the project has developed and implemented a methodology for assessing potential environmental challenges to OAS Member States in the context of increased trade and investment (under FTAA or

other regional trade commitments) through country studies undertaken in collaboration with national environmental officials and experts. The methodology centers on identifying high-growth sectors and industries with a high potential impact on the environment as a means to clarify potential environmental consequences of trade-related growth. Policy options are then analyzed in the domestic context as alternatives to manage and minimize environmental impact and to promote environmental benefits. In the area of dialogue and capacity building, the project has engaged environmental experts and officials in a constructive dialogue and in peer review so they can apply and replicate the analytical methodology of the country studies, and manage trade and environment issues in their own domestic context, as they deem appropriate. This dialogue takes account of parallel and related work by governments and non-governmental experts.

In the first two years, the project focused on the MERCOSUR block of Argentina, Brazil, Paraguay and Uruguay, and began the Central America Free Trade Agreement (CAFTA) block by carrying out country analyses of Costa Rica and Guatemala. Funding from USAID is being augmented by the Mott Foundation, OAS, and the U.S. Environmental Protection Agency.

3. Parks in Peril

Parks in Peril (PiP) is the flagship biodiversity conservation program in USAID's Bureau for Latin America and Caribbean. PiP is aimed at improving the management of LAC parks and reserves that contain globally significant biodiversity. The program is implemented by The Nature Conservancy, builds on the capacity of local organizations, and provides technical assistance to indigenous and other local communities. Components of the program include: environmental education, community investigation and monitoring of natural resources, implementation of key conservation strategies, support for indigenous land titling, and legal assistance for indigenous associations. PiP is active throughout the Latin America and Caribbean region, including the CAFTA countries of Honduras, Nicaragua, Guatemala and Costa Rica.

4. Central America Regional Environment Program (PROARCA II)

PROARCA II is the vehicle for USAID support for the CONCAUSA environmental objective. The project's overall strategic objective is to improve environmental management in the Mesoamerican Biological Corridor (MBC). Activities are organized around 4 planned results: a) improved protected area management in the MBC; b) expanded market access for environmentally sound products and services; c) harmonized environmental regulations; d) increased use of less polluting technologies. Support for improved protected area management in the MBC focuses on building effective alliances for protected area management, improving financing for protected area management, and increasing the application of protected area management tools and practices in the Gulf of Honduras and Gulf of Fonseca, the Reserva de la Amistad (Bocas del Toro and Gandoca Manzanillo), and the Reserva de la Solidaridad (La Mosquita). PROARCA II work to expand market access for environmentally sound products and services includes support for the creation of alliances for effective commercialization of certified

products and services. Efforts to harmonize environmental regulations have emphasized the development of harmonized environmental standards and regulations, increased capacity to apply environmental regulations, support for the effective application of key international agreements, and the development of a regional harmonized system for environmental auditing, registration, and compliance certification. PROARCA II promotes the increased use of less polluting technologies by helping municipalities to adopt improved solid waste and wastewater management systems and supporting private sector organizations to implement environmental management systems.

5. USAID Country-specific activities:

El Salvador: USAID/El Salvador's water and environment program promotes sustainable, replicable and integrated water resource management in 14 micro-watersheds to increase access to clean water for rural Salvadorans. Through this program, USAID is 1) improving the quality of water sources through agricultural practices that increase water availability and decrease erosion; 2) improving performance of water delivery systems by strengthening infrastructure and local management capability; 3) promoting more effective citizen involvement in water related issues through public awareness campaigns and training and; 4) improving municipal management of water resources.

Guatemala: Over the past five years, USAID/Guatemala has implemented an environmental program with the goals of supporting: (1) the dissemination and adoption of "best management practices" for sustainable agriculture, timber and non-timber forest products, ecotourism and other enterprises; 2) efforts to define an environmental policy agenda, build environmental constituencies, strengthen the capacity of local stakeholders and organizations to identify and analyze policy constraints, and implement corrective measures; and 3) greater private, municipal, and community participation in the administration of parks, forest reserves, and decision-making related to natural resource management. Results of the program have included the implementation of community-based forestry management activities on 392,056 hectares and the recognition of Guatemala as the world leader in the area of certification of community-managed forests.

Honduras: Following Hurricane Mitch, USAID/Honduras undertook a program focused on improving sustainable management of the natural environment in Honduras. Poor management of protected areas and watersheds contributed to the high level of damage and destruction caused by the hurricane, as deforested hillsides became landslides or failed to hold water, thereby contributing to flash floods and heavy siltation of rivers. In response to the limited experience with sustainable environmental management in Honduras, USAID provided assistance to NGOs to develop and implement management plans for protected areas and worked with municipal governments to improve management of forests under their jurisdiction. Activities under this program resulted in an increase in the number of protected areas under improved management

from 13 to 20 and an improved technical capacity in watershed management in 20 municipal governments and 43 local communities.

Nicaragua: USAID/Nicaragua's Natural Resources Management program has sought to enable NGOs and communities to cooperate with the Environment and Natural Resources Ministry (MARENA) to manage, use, and conserve natural resources in and around protected areas. This project, "Co-Management of Protected Area Project" (COMAP), has been implemented in seven protected areas by a USAID contractor and MARENA. The project has established a model that, through strategic investment, can strengthen the financial, social, economic, and environmental sustainability of actions carried out by different actors in a given protected area.

C. U.S. Department of Agriculture

1. USDA Hurricane Mitch Recovery Program

In October 1998 Hurricane Mitch devastated Central America, causing major damage to watersheds in Honduras, Nicaragua, El Salvador, and Guatemala. Honduras was hardest hit, followed by Nicaragua. In response to the Hurricane Mitch disaster, the U.S. Department of Agriculture, with funding from USAID, designed and led a major program of technical assistance from late 1999-2001 to rehabilitate watersheds damaged by the hurricane. This program was coordinated by the USDA Foreign Agricultural Service's International Cooperation and Development program area (USDA FAS/ICD). The broad objectives of USDA's Hurricane Mitch Reconstruction assistance included watershed rehabilitation and recovery in agricultural health and food safety.

USDA provided technical assistance for the recovery of damaged land and water resources by integrating agricultural, environmental, rural development concerns within the context of a watershed. Working in consultation with the respective USAID country missions and individuals from non-governmental organizations, government agencies, and local communities, USDA developed and implemented a plan of technical assistance to yield accomplishments within two years. The watershed rehabilitation objective featured four intermediate results:

Emergency Watershed Protection Implemented for Critical Sites--"Emergency watershed protection" consisted of repair and rehabilitation actions necessary to remove threats from damage to farm-to-market roads, water crossings, or stream banks, and restore or improve protection of land, water, and infrastructure in the watershed. Most of the work under this IR occurred in Nicaragua and Honduras, with additional efforts in Guatemala, and the Dominican Republic.

Land and Water Resources Rehabilitated in Priority Watersheds--Activities aimed to rehabilitate and reclaim damaged and degraded agricultural land, to rehabilitate damaged

streams by stabilizing stream banks, to protect water sources from sediment and contamination, and to stabilize hillsides. The planned impact of these activities was to bring damaged agricultural land back into production, to improve the condition of streams and to reduce soil erosion.

Local Capacity to Mitigate Future Storm Effects Strengthened--Local capacity strengthening, through workshops, on-the-job training, and partnering with local communities and NGOs was undertaken to strengthen communities' capacity to withstand future storm effects. Activities included reforestation of hillsides to help keep soil in place; helping to maintain tree cover through installation of household stoves that require 50 percent less fuel wood; and improving local road drainage.

Rural Housing Rehabilitated (Honduras only)--USDA and USAID/Honduras worked with local NGOs to administer a rural housing rehabilitation program in the upper Humuya watershed in Honduras. The project included grants and provision of earthen block machines to support Honduran adobe earthen block home construction, and reduced vulnerability to future flooding by improving drainage.

Another special objective of USDA's Hurricane Mitch reconstruction program was recovery in agricultural health and food safety after the hurricane to reduce hurricane-induced agricultural health risks to levels consistent with existing WTO obligations and emerging food safety recommendations. Program activities targeted the areas of livestock health, food safety, and phytosanitation, collectively referred to as Sanitation and Phytosanitation (SPS). The response consisted of:

Enhanced Health Practices for Agricultural Production and Management--A principal barrier to achieving compliance with WTO obligations was SPS practices of agricultural producers and processors. Knowledge and skills were not up to date with SPS requirements.

In response, the activities launched were intended to enhance knowledge and skills necessary for meeting WTO obligations in agriculture sectors that represented the greatest potential for export.

Essential Institutions for Ensuring Animal and Plant Health and Safety--Professional training seminars were offered to government and institutional decision makers to provide them with updated knowledge about SPS protocols and regulatory procedures. Specifically, pest risk assessments provided information to enable government institutions to meet international SPS requirements, while direct technical assistance to dairy processors and governmental diagnostic laboratories strengthened quality control and surveillance functions for the implementation of modern SPS protocols.

Appropriate Infrastructure Rehabilitated--Weaknesses in physical infrastructure for

laboratory diagnosis of diseases and monitoring of food safety status, and facilities for packing and cold storage of agricultural products prevented Honduras and Nicaragua from meeting WTO obligations for SPS. Activities focused on upgrading facilities to enable governmental and non-governmental organizations and institutions to comply with SPS obligations of WTO, resulting in enhanced export capability and improved market opportunities for several products.

2. Ongoing Technical Assistance in agriculture, natural resources management, and environmental activities

The U.S. Department of Agriculture provides environmental technical assistance to USAID's Central American regional program (G-CAP) based in Guatemala. This activity has been coordinated for the Department by the USDA Foreign Agricultural Services International Cooperation and Development program area (USDA FAS/ICD). USDA FAS/ICD has detailed a USDA Forest Service employee to serve as the resident Regional Environmental Advisor to G-CAP to provide policy, strategic and technical advice and leadership in environment and natural resources management. In addition to serving Guatemala, the Regional Advisor covers El Salvador, Honduras, Mexico, Nicaragua, and Panama through assessing environmental impact, developing mitigation guidelines for development activities and advising USAID on its environment and natural resources management programs, strategies, and analyses. Additional assistance (funded by USAID) is provided by USDA technical experts on short-term technical assignments to the region. During the past year USDA has provided technical guidance to the region on management of forest fires and forests insect pests, such as the pine bark beetle. Also, USDA through its agreement with USAID Nicaragua has provided technical assistance in Nicaragua on the management of forests and protected areas, further development of Nicaragua's dairy sector, and a review of USAID's strategy for Nicaragua.

D. US Department of Commerce

1. Office of Environmental Technologies (OETI)

OETI's mission supports promotion of U.S. environmental technologies by assisting U.S. environmental technologies firms to export their goods and services. Activities include trade missions overseas, and reverse missions, conferences and seminars held independently, or in conjunction with larger industry events and trade shows. OETI also works with industry associations, multipliers and our advisory committee to alert the U.S. industry of trade leads, opportunities and projects overseas and advocate on behalf of U.S. environmental technologies firms on international projects.

For the past several years OETI has been actively involved in Central America, attending environmental technologies trade shows in the region, hosting missions and supporting

delegations to U.S. trade shows. OETI recently coordinated the Department of Commerce, International Trade Administration's efforts in the environmental sector following Hurricane Mitch, supported by USAID, to host two highly successful trade missions bringing municipal water officials to the U.S. and Mexico to meet with U.S. technology providers to help meet the challenges to their water infrastructure post-Hurricane Mitch. These missions resulted in the sale of \$1.5 million in water treatment technologies and helped bring updated water infrastructure to part of the region.

2. Market Development Cooperator Grant Program: Institute of the Americas

The Department of Commerce awarded the Institute of the Americas a special grant for 2001-2003 to identify areas in which U.S. industry could help address Latin America's water infrastructure goals, including those of Central America. Under the grant program the Institute has hosted a series of roundtables with industry and officials from throughout Latin America and the Caribbean to discuss solutions for the region's water issues.

3. Regional Environmental Technologies Trade Show

This event is the largest environmental trade event in Mexico and features a number of key U.S. companies exhibiting. In 2001, OETI organized with AID funding a reverse trade mission from Central America to Mexico City for environmental officials from Central America to attend the event and participate in a technical seminar meeting with U.S. environmental treatment companies year to learn about the latest technologies applicable to the region.

E. National Oceanographic and Oceanic Administration (NOAA)

1. Costa Rica - NOAA - GLOBE Program

The Agreement Between the U.S. NOAA and Costa Rica's Ministry of Education for Cooperation in the Globe Program was signed in 1997. The GLOBE Program is an international environmental science and education program that brings students, teachers, and scientists together to study the global environment. GLOBE has created an international network of students at primary, middle and secondary school levels studying environmental issues, making environmental measurements, and sharing useful environmental data with one another and the international science community.

2. National Sea Grant College Program

The Sea Grant College Program has been a highly effective forum in the United States to address coastal and marine issues because it links university based research with extension and education efforts. Following the devastation of Hurricane Mitch in 1998, the University of Puerto Rico Sea

Grant Program trained extension agents in Honduras and Nicaragua to provide technical expertise and training programs to small-scale shrimp farmers in order to help rebuild the capacity of this important economic sector.

3. Monitoring Sea Level Change

With funds from USAID and in collaboration with NOAA, the Organization of American States (OAS) and the Regional Committee of Hydraulic Resources (CRRH), a monitoring station to measure sea level changes was set up at the National University of Costa Rica at the headquarters of the International Oceanic Institute.

4. Data from High Resolution Environmental Satellites

With USAID funds, NOAA established a satellite station at the National Meteorological Institute to help strengthen capacity to receive and analyze high-resolution digital images of atmospheric, oceanic, and geophysics data of Central America. As part of the Hurricane Mitch Recovery effort, the United States transferred a satellite ground station that provides access to high resolution digital imagery from NOAA's Geostationary Operational Environmental Satellites (GOES). This system will allow weather forecasters in the region to perform quantitative analysis of the data, which will lead to enhanced forecasting. From a hub in San Jose, Costa Rica, the data will be distributed to meteorological services in Belize, El Salvador, Honduras, Guatemala, Nicaragua, and Panama.

This new system builds on NOAA's existing partnership with other nations in the Atlantic, Caribbean, and Central American region by employing the latest in satellite meteorological technology to improve hurricane warning systems and programs. In bringing this about, SICA (Sistema de Integración Centroamericana), a presidential-level regional coordinating body located in San Salvador, El Salvador, and the Comité Regional de Recursos Hidráulicos (CRRH), a regional meteorological and hydrological organization, provided regional coordination with Central American governments.

This activity was funded in part by USAID's Hurricane Mitch Reconstruction and Development Special Appropriation for the GOES station and activities in Costa Rica, El Salvador, Nicaragua, Guatemala and Honduras.

F. Environmental Protection Agency

In October 1995, the U.S. EPA began providing support to USAID in the environmental protection component of PROARCA, the Regional Environmental Program for Central America created to support U.S. commitments made under the CONCAUSA agreement. EPA's primary goal was to help develop, strengthen, and implement environmental laws and regulations in the region, but EPA also has worked on wastewater treatment; pesticides; solid waste management;

cleaner production in cheese and tannery facilities; safe drinking water; and a pilot program for air quality monitoring. More specific examples of cooperative activities include the following:

1. Environmental Legislation Project

EPA has supported efforts to develop and strengthen environmental laws, as well as their implementation and enforcement, in Central America. This has involved providing technical input and training to assist in the further development of environmental framework laws, for example in El Salvador, Honduras and Panama. EPA also has provided technical assistance and training to support the development of specific laws and regulations under these framework laws, for example regarding pesticides, environmental impact assessment, water quality, and the implementation of international environmental agreements. EPA also has consulted with countries in the region to help establish and design environmental ministries and/or other bodies to support the implementation of these laws.

EPA also has helped to (a) build a network of experts in the field to exchange information and build capacity, and provide specific technical input upon request in the development of individual laws, regulations and institutions; (b) develop an Environmental Law Manual as a reference for policy makers in designing effective environmental laws and providing training and technical input on the development of laws, regulations and institutions at regional workshops; (c) design a regional database that summarizes key elements of environmental laws in each Central American country; and (d) carry out training to build compliance and enforcement capacity.

The manual addresses the general elements of environmental legal systems, for example: guiding concepts and principles; regional and international law considerations; the role of institutions and civil society; cross-cutting themes in designing laws and regulations; the tool-box of methods, such as standards, environmental impact assessments, economic incentives, that can be included in laws and regulations, and compliance and enforcement. EPA and the Central American Commission for Environment and Development, have used the manual in the delivery of training sessions and as technical input at a number of meetings and workshops in the region, initially in support of efforts to strengthen five new national environmental laws in Belize, Nicaragua, Panamá, Costa Rica and Guatemala. It has also been used as a resource for technical discussions of specific aspects of environmental legal regimes, such as tools to promote civil society participation, environmental impact assessments, pollution prevention and clean production, and in technical workshops on pesticides and water quality cases.

2. Sustainable Wastewater Treatment Practices

In 1997, EPA began providing technical assistance to help define and address wastewater problems, regulations, and enforcement activities in Central America. EPA personnel conducted

a series of seminars and workshops about wastewater regulations and permitting, low-cost wastewater treatment technologies, and wastewater analysis and quality assurance for laboratories.

To demonstrate the concept of appropriate and sustainable wastewater treatment systems for Central America, an EPA wastewater team designed a pilot wastewater treatment system in Puerto Barrios, Guatemala, to serve as an example on how to address the town's health and environmental concerns. The two plants constructed under this effort began operation in May 2000 and service a small portion of the municipality. Effluent analytical tests have indicated that the system would have met secondary standards for wastewater treatment plants in the United States.

3. Pesticides Project

EPA has conducted outreach efforts to educate farmers and governmental agencies about the overuse and sound management of pesticides in the region. EPA has worked on safe disposal, impact on food safety, and community-based approaches to pesticides management. The agency has also helped the region begin to implement components of two international treaties on pesticide use and disposal. Governmental officials from the ministries of environment, agriculture, and health from all of the countries in the region have participated in regional meetings addressing the development of preliminary inventories, logistical strategies for disposing of unwanted pesticides, the management of damaged and leaking pesticide containers, and strategies to prevent future accumulations of obsolete pesticide stocks.

The agency provided assistance to El Salvador in the development of a preliminary inventory of unwanted pesticides. In Honduras, EPA conducted a pilot of its regional international training course, "Disposal of Obsolete Pesticides in Developing Countries." In both Costa Rica and Honduras, emergency response courses were delivered to provide an overview of handling hazardous materials with an emphasis on pesticides.

EPA and the Central American Commission on Environment and Development helped the Central American countries secure funding from bilateral and multilateral sources for obsolete pesticide disposal activities. As a result of these efforts, nearly 800 tons of obsolete pesticides have been disposed from Central American countries. This total includes 600 tons from Nicaragua and nearly 200 tons from Honduras. Plans are currently underway to dispose of the remaining 1,600 tons of unwanted pesticide stocks in the region.

To help ensure the safety of agricultural products exported from Central America as well as those consumed in the region, EPA has conducted several training workshops on analytical methods to assess pesticide levels in fruits and vegetables in Costa Rica and Nicaragua.

In Choluteca, Honduras, EPA helped establish a sustainable community-based pesticide management model for Central America in coordination with a region-wide environmental planning and policy initiative. The model focused on safe use practices of pesticides, risk reduction and emergency preparedness, and product stewardship.

The Central American countries have worked with EPA to enhance implementation of two international treaties related to pesticides and chemicals: the Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals & Pesticides in International Trade (PIC), and the Stockholm Convention on Persistent Organic Pollutants.

To help Central American governments understand the intricacies of the agreement, EPA technical experts developed and presented a PIC workshop to representatives from the agricultural, environment, and health ministries from each of the Central American countries at the Central America Regional International Organization of Farming Health meeting in El Salvador in August 1999. After EPA's workshop, Central American countries evaluated the mechanisms necessary to implement the PIC agreement through collaborations among their respective environmental and agricultural ministries.

4. Solid Waste Project

To help address the environmental and public health problems stemming from inadequate waste collection and disposal, EPA and its partners have worked to provide alternative approaches to open dumping and ineffective landfills. Specifically, EPA and its partners provided assistance in siting, operation, and maintenance of sanitary landfills, and expertise on solid waste management. In addition, EPA and its partners promoted source reduction and minimization, composting, recycling, alternative packaging, market development of recycled products, and other economic and market incentives regarding a comprehensive solid waste management.

For one of its solid waste demonstration projects, the team assisted the municipality of Usulután in El Salvador with preliminary construction of a landfill and a materials recovery facility. The team is working in Bocas del Toro, Panamá, where it is providing technical assistance on landfill siting and inspecting the construction of the sanitary landfill.

In conjunction with the demonstration projects, EPA and its partners provided recommendations on the closure of an old landfill and consultation on sites for a new landfill in La Unión, El Salvador. Similarly, they provided technical assistance to city officials on a future sanitary landfill site in Villanueva/Somotillo, Nicaragua.

From 1996 through 2001, the team has conducted several workshops on solid waste management and recycling, siting, construction, and operation of sanitary landfills, development of material recovery facilities, environmentally friendly packaging, and plastics waste management

throughout Central America. These workshops were typically attended by civil engineers, representatives from the ministries of health and the environment, municipal officials, waste management industry personnel, and nongovernmental organizations.

5. Cleaner Production Project

EPA initiated the Cleaner Production Project in 1999 to demonstrate ways in which industries could develop cleaner and more efficient manufacturing processes, institute environmental management plans, realize cost savings and develop a higher quality product. In addition, EPA and its local partners hoped to increase awareness of the benefits of cleaner production by distributing information and results from the project across industry sectors in Central America.

To promote cleaner production among these industries, EPA began addressing production processes in the cheese and tannery sectors. Cheese manufacturing plants typically use significant amounts of energy and generate large quantities of wastewater and solid waste. In particular, the disposal of whey, a by-product of cheese processing, presents a significant waste problem. EPA sponsored pilot projects and workshops targeting cheese manufacturing plants in Panamá, Nicaragua, El Salvador, Guatemala and Honduras.

Tanneries, like cheese manufacturing plants, consume a significant amount of energy. Tanneries also use substantial quantities of toxic chemicals, including chromium, formaldehyde, coal-tar derivatives and cyanide-based oils and dyes. Two pilot projects were initiated at tanneries in Guatemala and Nicaragua.

To demonstrate cleaner production principles, five small- and medium-size cheese processing plants and two small- and medium-size tanneries were selected across the Central America region. The key activities of the pilot projects included: (1) identifying key strategic points for intervention, (2) training personnel, (3) organizing Environmental Management Systems, and (4) developing environmental management plans.

EPA and the Center for Technology and Industrial Information Management, in collaboration with the Central American Commission on Environment and Development, hosted five subregional technical workshops to present the results of the pilot projects and demonstrate the technical and economic incentives for cleaner production processes.

Several measurable results were observed from this project. These included: 1) improved environmental performance at cheese factories and tanneries, such as reductions in waste streams, increased conservation of water and energy, and increased reuse and recycling of products/byproducts; and 2) benefits to industry, including annual savings of approximately \$40,000 per pilot facility, resulting from initial investments of less than \$5,000.

6. Safe Drinking Water Project

In 1997 EPA launched an International Safe Drinking Water Initiative, choosing Central America as a priority region. The initiative focused on improving water quality, and El Salvador was selected as a pilot country. Following the devastation of Hurricane Mitch in October 1998, EPA expanded its safe drinking water program with USAID funds to include Honduras and Nicaragua.

EPA's primary focus was to assess and address the adverse health effects affecting the population as a result of poor drinking water quality. Specifically, EPA aimed to improve drinking water quality by strengthening the capacity of institutions - particularly the water utilities and the ministries of health - responsible for providing safe drinking water in targeted rural and key urban areas in El Salvador, Nicaragua and Honduras. Four key components were addressed: 1) laboratory capacity-strengthening; 2) drinking water treatment plant optimization; 3) source water protection; and 4) safe drinking water program development.

7. Air Quality Project

Air pollution presents a serious threat to human health and the environment in much of Central America. Despite these serious concerns, there is limited monitoring data on air quality in the region. In response, in 2000 EPA developed a pilot project in Guatemala to initiate air quality monitoring and to serve as a model for other Central American countries. As part of its project, EPA set out to work with Guatemalan officials to develop an air quality management plan to address air pollution from mobile sources such as diesel buses and two-stroke engines, as well as forest fires. EPA has also been worked with the California Air Resource Board, the Pan American Health Organization, the Central American Commission on Environment and Development, and Guatemalan nongovernmental organizations on the air project.

In 2001 EPA hosted workshops in Guatemala addressing technical issues such as operating monitoring equipment, sampling techniques, data collection, and quality assurance and control. The workshops also covered the air quality management process, including regulatory, financing, and control strategies, as well as vehicle inspection and maintenance issues.

The key component of EPA's air program in the region is establishing four air monitoring stations in Guatemala. Data from the monitoring stations will be used in part to develop an air quality index that provides information about daily levels of air pollution to the public. EPA also worked with the Ministry of the Environment and Natural Resources to develop an Air Quality Management Plan for Guatemala City. A key aspect of the air pilot project in Guatemala is to enable participation of, and share lessons learned with air specialists and officials from other Central American countries. Therefore, EPA and Guatemalan officials plan to share the air quality data they collect with other countries in the region to spur future monitoring efforts and air quality management plans.

G. Department of the Interior

1. Park Flight Migratory Bird Program

Through the Park Flight Neotropical Migratory Bird Program, the National Park Service (NPS), within the U.S. Department of the Interior (DOI) assists protecting area management agencies in Central America by providing training in the monitoring of birds and habitat and in environmental education techniques. This NPS program works with El Salvador, Guatemala, Honduras and Nicaragua. Further information is available at:

<http://www.nps.gov/oia/topics/flight.htm>

Selected activities of the program include:

- Training of Honduran park rangers in field techniques for bird conservation
- Training in environmental interpretation in Nicaragua's Mombacho Volcano Natural Area
- Design of interpretive bird-watching trails at El Salvador's national parks
- Workshop on environmental education techniques held at Grand Canyon, NP, Nov. 2001
- Workshop on bird monitoring programs held in Honduras, Nov. 2002 (see text below)
- Several NPS sites in the US hosted Central American biologists in 2002 to train them in bird monitoring and environmental education.

The U.S. National Park System provides critical habitat for many species of migratory birds, from raptors and shorebirds to songbirds. Continental and local declines in these bird populations have led to a concern for their future. Because these species use parks on a seasonal basis, their protection cannot be assured without conservation efforts occurring in the habitats the birds use throughout the year. This requires cooperative, coordinated programs between the United States and Latin America, such as the *Park Flight* Program, to protect breeding, migration, and wintering habitats, as well as a pro-active migratory bird conservation program within the National Park Service (NPS).

The Park Flight Migratory Bird Program works to protect shared migratory bird species and their habitats in both U.S. and Latin American national parks and protected areas through developing bird conservation and education projects and creating opportunities for technical exchange and cooperation.

Park Flight is a partnership between the NPS, National Park Foundation, and National Fish & Wildlife Foundation/USAID, and is made possible through the generous support of American Airlines and the NPS Natural Resource Challenge. Technical direction is provided through the University of Arizona Desert Southwest Cooperative Ecosystem Studies Unit and the NPS Biological Resource Management Division.

Park Flight has funded bird conservation and education projects in thirteen U.S. national park units, including Sequoia and Kings Canyon, North Cascades, Bandelier, Pecos, Aztec Ruins, Capulin Volcano, Fort Union, New Jersey Coastal Heritage Trail, Cuyahoga Valley, Great Smoky Mountains, Golden Gate, and Point Reyes. Park Flight projects have also been funded at important park bird conservation sites in Guatemala, El Salvador, Nicaragua, Honduras, Panama, and Mexico.

In addition to initiating these bird conservation and education projects, the Park Flight Program has implemented a program of technical assistance, including training workshops, personnel exchanges, and participation of Central American professionals in U.S. National Parks through the NPS Office of International Affairs International Volunteers in Parks program. Two workshops for all Park Flight grantees from both U.S. national parks and Mesoamerican parks have been held: one at the Grand Canyon Albright Training Center on environmental education techniques and one in Honduras on bird monitoring programs. Staff at the Chocoyero El Brujo Wildlife Refuge in Nicaragua received assistance from an NPS landscape architect who designed a boardwalk and viewing platform at an important site for resident and migratory birds. NPS planners provided assistance to parks in El Salvador and Guatemala in the creation of bird watching trails. As part of the Honduras Park Flight project, an NPS wildlife biologist from Sequoia and Kings Canyon National Parks assisted with the instruction of Honduran biologists and park guards in field techniques for bird monitoring and conservation. Interns from Mexico, El Salvador, Guatemala, Panama and Nicaragua have assisted with Park Flight bird monitoring and education efforts at Sequoia/Kings Canyon National Parks, Point Reyes/Golden Gate, North Cascades National Park and the New Jersey Coastal Heritage Trail.

See: <http://www.nps.gov/oia/topics/honduras%20workshop.html>

2. Park Flight Workshop: Creating a Network for Protected Area Avian Monitoring

In November 2002, the Park Flight Program held its second grantee workshop at the Pico Bonito Lodge, near La Ceiba, Honduras. This workshop brought together 37 participants including Park Flight grantees from national parks and other protected areas in the United States, Mexico, Guatemala, Honduras, El Salvador, Nicaragua and Panama, instructors from Canada, the U.S. and Mesoamerica, and other Park Flight partners to learn about bird monitoring efforts and discuss the creation of a network of bird monitoring programs throughout the Americas. This workshop was a follow-up to the first workshop on environmental education techniques held at Grand Canyon National Park in November 2001.

The workshop presentations were focused on several general areas: descriptions of the projects undertaken by Park Flight grantees, descriptions of other bird monitoring projects in the U.S., Canada and Mexico, and ideas on how to integrate bird monitoring programs into resource management and environmental education activities.

3. NPS Sister Park Relationships

The NPS has a “sister park” relationship with Honduras between Chaco Culture NHP in New Mexico and Copan Archaeological Park in Honduras. Chaco Culture sent a team of advisors to Copan in 2001 to help Copan write their General Management Plan and in 2002, Copan sent a delegation to the U.S. to study a variety of park management issues, including interpretation, law enforcement, and resource management, among others. These partnerships increase information sharing and direct park-to-park contacts, primarily through the use of improved telecommunications technologies. See:<http://www.nps.gov/oia/topics/sister.htm>

4. International Accord

NPS has an unofficial agreement with Costa Rica—the “Braulio Carrillo Joint Declaration,” signed by past DOI Secretary Babbitt and Rene Casto of Costa Rica. Under this accord, the US sent a team to Costa Rica to help them update management plans for Costa Rica’s Corcovado National Park.

5. Partners in Flight

The Fish and Wildlife Service (FWS) within the Department of the Interior manages the Partners in Flight Program. (<http://www.partnersinflight.org/description.cfm>)

6. Regional Tourism

DOI has worked with the Mundo Maya Organization (MMO), an international organization consisting of the Ministries of Tourism of five Mesoamerican countries: Mexico, Guatemala, Belize, El Salvador, and Honduras. The MMO program, funded by the InterAmerican Development Bank, focuses on the promotion of tourism circuits linking the five member nations and the improvement the visitor experience to the Mayan archaeological sites while ensuring that the extensive cultural and natural resources are protected. DOI assisted in the evaluation of the twelve MMO-selected pilot sites, focusing on visitor services and archaeological artifact anti-poaching issues and is expecting to continue this work.

7. Protected Area Management in Guatemala

Since May 2000 the Department of Interior (DOI) has been working with Consejo Nacional de Areas Protegidas (CONAP) to strengthen protected area management of the Mayan Biosphere Reserve (MBR), which forms the core of the largest tract of intact tropical forest remaining in Meso-America. DOI has provided assistance in fire and park management, planning and design and policy development and has helped create the Guatemalan Ministry of the Environment and

Natural Resources.

8. Biodiversity Conservation in Honduras

The Department of the Interior's (DOI) International Technical Assistance Program (ITAP) is working in 300,000 hectares of the Rio Platano Biosphere reserve to promote conservation of its biological diversity. ITAP has been helping the Honduran government establish administrative control of the area. In addition, ITAP has helped develop a marine turtle conservation project started in one community that is now spreading to others areas. The project's work immediately resulted a drop in turtle egg poaching from 100% of all the turtles in the area in 1995, to 25% in 1996. Over the years thousands of hatchling turtles have been rescued and released into the sea. ITAP has also helped in starting and assisting with a butterfly farm to create revenue and jobs, and organized 94 professional school teachers into teacher cooperatives to develop environmental education curricula.

ANNEX III—List of Organizations Providing Comments on Scope

American Sugar Alliance
Center for International Environmental Law
Carnegie Endowment for International Peace
Ohio Conference on Fair Trade
World Wildlife Fund

ANNEX IV—Data Tables

Table 1—Population, economic and trade data for CAFTA countries and the United States in 2001

	Population <i>Millions</i>	Gross Domestic Product			Exports	
		Total <i>Billion US\$</i>	Per capita <i>US\$/capita</i>		Total <i>Billion US\$</i>	As a share of GDP <i>Percent</i>
			Nominal	PPP ^a		
Costa Rica	3.9	16.1	4,128	8,260	6.9	42.7
El Salvador	6.4	13.7	2,141	4,570	4.0	28.9
Guatemala	11.7	20.5	1,752	3,880	3.8	18.6
Honduras	6.6	6.4	970	2,450	2.5	38.3
Nicaragua	5.2	2.6	500	2,040	0.8	32.5
Subtotal	33.8	59.3			17.9	30.3
United States	284.0	10,171.4	35,815	35,060	730.9	7.2

^a Purchasing Power Parity. Data are for 2002. The figure for Nicaragua is estimated.

Sources: World Bank, U.S. Department of Commerce.

Data available at: <http://www.worldbank.org/data> and <http://www.ita.doc.gov/td/industry/otea/>

Table 2—Selected development indicators for CAFTA countries and the United States in 2001

	Population density <i>People per square km</i>	Urban Population <i>Percent</i>	Access to		Under-5 mortality <i>No. per 1,000 births</i>	Life expectancy at birth <i>Years</i>
			Improved water source <i>Percent</i>	Improved sanitation facilities <i>Percent</i>		
Costa Rica	74.6	59.5	95	93	11	78
El Salvador	302.9	61.3	77	82	39	70
Guatemala	105.0	40.0	92	81	58	65
Honduras	57.4	53.6	88	75	38	66
Nicaragua	41.8	56.5	77	85	43	69
United States	30.8	77.4	100	100	8	77

Source: World Bank, World Development Indicators, 2003.

Data available at: <http://www.worldbank.org/data>

Access to an improved water source-refers to the percentage of the population with reasonable access to an adequate amount of water from an improved source, such as a household connection, public standpipe, borehole, protected well or spring, and rainwater collection. Unimproved sources include vendors, tanker trucks, and unprotected wells and springs. Reasonable access is defined as the availability of at least 20 liters a person a day from a source within one kilometer of the dwelling. (World Health Organization and United Nations Children's Fund, Global Water Supply and Sanitation Assessment 2000 Report).

Access to improved sanitation facilities-refers to the percentage of the population with at least adequate excreta disposal facilities (private or shared, but not public) that can effectively prevent human, animal, and insect contact with excreta. Improved facilities range from simple but protected pit latrines to flush toilets with a sewerage connection. To be effective, facilities must be correctly constructed and properly maintained. (World Health Organization and United Nations Children's Fund, Global Water Supply and Sanitation Assessment 2000 Report).

Table 3—Land area, land use, and forest cover change for CAFTA countries and the United States

	Land area <i>Million Hectares</i>	Land use <i>Percent total land</i>		Annual change in forest cover, 1990-2000 <i>Percent</i>	Share of land in protected status <i>Percent</i>
		Forest	Agriculture		
Costa Rica	5.1	39	56	-0.8	23
El Salvador	2.1	6	77	-4.6	a
Guatemala	10.8	26	42	-1.7	20
Honduras	11.2	48	30	-1.0	6
Nicaragua	12.1	27	62	-3.0	18
United States	915.9	25	46	0.2	26

^a Less than 1 percent.

Sources: United Nations Food and Agriculture Organization; World Bank
Data available at: <http://www.fao.org> and <http://www.worldbank.org/data>

Table 4—Biodiversity indicators for the CAFTA countries and the United States

	Number of protected areas <i>Number</i>	Area of biosphere reserves <i>Thousand hectares</i>	Species threatened <i>Number (Percent known species)</i>		
			Mammals	Birds	Plants
Costa Rica	130	729	14 (6.8)	13 (4.7)	109 (0.8)
El Salvador	3	-	2 (1.5)	0 (0.0)	23 (0.8)
Guatemala	42	2,350	6 (2.4)	6 (2.7)	77 (0.9)
Honduras	72	800	10 (5.8)	5 (2.2)	108 (1.9)
Nicaragua	73	2,182	6 (3.0)	5 (2.3)	39 (0.5)
United States	3,481	31,570	37 (8.6)	55 (8.5)	Na

Na = Data not available

Sources: United Nations Environment Program; World Bank

Data available at: <http://www.unep.org> and <http://www.worldbank.org/data>

Protected areas: Refers to management categories I through V of the International Union for the Conservation of Nature and Natural resources (IUCN). (See <http://www.iucn.org> for additional information.)

Biosphere reserves: Refers to areas representative of terrestrial and coastal/marine environments that have been internationally recognized under the United Nations Educational, Scientific and Cultural Organization (UNESCO) Man and the Biosphere Programme. (See <http://www.unesco.org> for additional information.)

Table 5—United States goods trade with the CAFTA countries, 2001-2002*Billion \$*

Trading partner	United States exports		United States imports	
	2001	2002	2001	2002
Costa Rica	2.5	3.1	2.9	3.1
El Salvador	1.8	1.7	1.9	2.0
Guatemala	1.9	2.0	2.6	2.8
Honduras	2.4	2.6	3.1	3.3
Nicaragua	0.4	0.4	0.6	0.7
CAFTA Subtotal	9.0	9.8	11.1	11.9
All U.S. partners	729.1	693.1	1,141.0	1,161.4
CAFTA share (percent)	1.2	1.4	1.0	1.0

Source: U.S. Department of Commerce

Data available at: <http://www.ita.doc.gov/td/industry/otea/>

Table 6—Value of wild plant and animal trade between the United States and the CAFTA countries, 1998-2001

Thousand \$

Trading partner	United States imports		United States exports	
	CITES-regulated	Non-CITES	CITES-regulated	Non-CITES
Costa Rica	112.3	4,014.0	64.9	306.0
El Salvador	2,417.6	392.8	33.5	98.1
Guatemala	60.8	927.6	13.9	446.6
Honduras	20,814.1	571.1	23.8	36.2
Nicaragua	852.8	884.5	15.2	29.2

Source: U.S. Fish and Wildlife Service