Interim Environmental Review

U.S.-Andean Free Trade Agreement

Office of the U.S. Trade Representative

February 2005

Executive Summary

Pursuant to authority delegated by the President in Executive Order 13277 (67 *Fed. Reg*. 70305) and consistent with Executive Order 13141 (64 *Fed. Reg*. 63169) and its guidelines (65 *Fed. Reg*. 79442), the Office of the United States Trade Representative (USTR) submits this Interim Environmental Review of the United States-Andean Free Trade Agreement (FTA), as provided for under section 2102(c)(4) of the Trade Act of 2002 (Trade Act).

On November 18, 2003, 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 FTA with the Andean Countries of Colombia, Peru, Ecuador and Bolivia. The formal launch of negotiations took place on May 18, 2004 with Colombia, Peru and Ecuador. As of the date of this Interim Review, five rounds have taken place. A trade capacity building group has been meeting in parallel with the negotiating groups. The negotiations are expected to conclude in early 2005.

The environmental review process examines possible environmental effects that may be associated with the FTA. In identifying and examining these possible effects, the Administration drew on public comments submitted in response to a notice in the *Federal Register* (69 *Fed. Reg*. 19261), comments provided at public outreach events held in each of the Andean countries and a variety of sources of published information. The review also draws on the environmental and economic expertise of federal agencies. Consistent with Executive Order 13141 and its Guidelines, the focus of the review is on potential impacts in the United States. Additionally, this review includes consideration of global and transboundary effects.

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

- Based on existing patterns of trade and changes likely to result from provisions of the U.S. - Andean FTA, the impact on total U.S. production through changes in U.S. exports appears likely to be very small. As a result, the U.S. - Andean FTA is not expected to have significant direct effects on the U.S. environment.

- Based on an analysis of comparable provisions of previous FTAs, the U.S. - Andean FTA 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 U.S. - Andean FTA appears likely to have relatively greater effects on the economies of the three Andean countries. Net changes in production and trade may be relatively small in the near term, however, because most goods exports to the United States from these countries already face low or zero tariffs as a result of the Andean Trade Promotion and Drug Eradication Act (ATPDEA) of 2002.

- The U.S.- Andean FTA may have small, indirect effects on the U.S. environment through economic growth in the Andean countries and subsequent effects on habitat for wildlife, including migratory species.

- The U.S.- Andean FTA may have positive environmental consequences in Colombia, Ecuador and Peru by reinforcing efforts to effectively enforce environmental laws, accelerating economic growth and development through trade and investment and disseminating environmentally beneficial technologies.

- Through an examination of a variety of transboundary and global issues, the Administration identified possible environmental concerns to be discussed in the course of negotiations, as well as areas for possible priority attention in bilateral and regional cooperation. The U.S.- Andean FTA provides a context for enhancing cooperation activities to address both trade-related and other environmental issues.

Environmental Review of the U.S. - Andean Free Trade Agreement

I. LEGAL AND POLICY FRAMEWORK

A. The Trade Act of 2002

The Trade Act of 2002 (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));
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> (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 is provided by Executive Order 13141–*Environmental Review of Trade Agreements* (64 *Fed. Reg*. 63169) and the associated Guidelines (65 *Fed. Reg*. 79442). 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

Colombia, Ecuador, and Peru have a combined population of 84.5 million (about 30 percent of the population of the United States) and a combined gross domestic product of $165 billion (see table 1, annex II for detailed data). The U.S. trade relationship with the Andean countries is currently conducted in the framework of unilateral trade preferences. Congress enacted the Andean Trade Preferences Act (ATPA) in 1991 to promote regional economic development and to provide economic alternatives for the illegal drug trade, promote domestic development, and thereby solidify democratic institutions. In renewing and expanding the ATPA in 2002, as the Andean Trade Promotion and Drug Eradication Act (ATPDEA), Congress further stressed enhancement of trade with the United States as an alternative means for reviving and stabilizing the economies in the Andean region. The ATPDEA renewed and amended the ATPA to provide duty-free treatment for certain products previously excluded under the ATPA. An FTA with the Andean countries is expected to promote economic integration among the Andean countries and, at the same time, provide export opportunities for U.S. exporters.

A. Economy in the Andean Countries

Tables 1 and 2 (annex II) illustrate the scale of the Andean economies in relation to the United States and provide data that compare economic and social conditions in these countries with those in the United States.

Colombia is the fourth-largest country in South America and has a free market economy with major commercial and investment ties to the United States. Well-endowed with minerals and energy resources, Colombia has the largest coal reserves in Latin America and is second to Brazil in hydroelectric potential. The discovery of two billion barrels of high-quality oil, about 125 miles east of Bogotá, has enabled Colombia to become a net oil exporter.

Although Colombia has considerable natural resources, the economy has suffered for some time from weak demand (both domestic and foreign), austere government budgets and serious domestic conflict. Two of Colombia's leading exports, oil and coffee, face an uncertain future. Declining oil production can only be offset by new exploration to increase reserves. At the same time, regional coffee harvests have declined and prices are depressed. On the positive side, several international financial institutions have praised recent economic reforms and the government's economic policies and domestic security strategy have contributed to a growing sense of confidence in the economy.

Ecuador also has an impressive wealth of natural resources, including substantial petroleum reserves. Oil production accounts for a significant share of export earnings, public revenue and GDP. Ecuador also is the world's largest exporter of bananas and a major exporter of shrimp.

Exports of nontraditional products such as flowers and canned fish have grown in recent years, reflecting progress in economic diversification.

In the late 1990s, Ecuador suffered from an economic crisis. Sharp declines in world oil prices, compounded by natural disasters, led to a contraction in GDP and increase in poverty. More recently, Ecuador has benefited from higher oil prices but still faces the need to make progress in a number of areas of economic policy in order to reduce vulnerability to volatility in oil prices and financial crises.

Peru's dynamic economic performance in the past few years has contrasted sharply with slower growth and economic turmoil elsewhere in South America. Peru's economic growth (over 5 percent, in real terms) led the hemisphere and was driven by investment, domestic demand and exports. During the 1990s, Peru was transformed by market-oriented economic reforms and privatization and established many conditions for long-term growth. Nevertheless, the importance of extractive industries and raw material exports contributes to Peru's vulnerability to fluctuations in world markets and prices.

The Region's Drug Economy

Drug production is an on-going problem in the Andean region. While the exact figure us unknown, it is estimated that coca cultivation generates many hundreds of millions of dollars in revenue. In Peru alone, estimates range from $300-$600 million. In addition to its social and environmental effects, the scale of this illegal activity creates problems for domestic economies. For example, the resulting flow of dollars into the banking system in Peru affects the exchange rate and creates a climate in which money laundering can flourish. As a result, the Central Bank is forced to engage in open market activities to prevent the price of the Peruvian sole from rising to levels that would otherwise depress exports.

Colombia is the world's leading supplier of refined cocaine and a growing source for heroin. More than 90 percent of the cocaine that enters the United States is produced, processed or transshipped in Colombia. To combat this, Colombia is engaged in a broad range of narcotics control activities that include aerial spraying of herbicide and manual eradication. Supported by the United States, Colombia has attempted to keep coca, opium poppy and cannabis cultivation from expanding.

The APTA and ATPDEA are designed to reduce production and exports of narcotics to the United States. The primary mechanism of both acts is broader access to U.S. markets to provide incentives to farmers and others to engage in legitimate economic activities. Alternative development programs in each of these countries, which the United States also supports, provide former drug-crop producers with alternative sources of income.

B. Environment in the Andean Countries

The Andean region is one of the most ecologically diverse areas of the world. While the region accounts for less than one percent of the earth's surface, it accounts for a significant share of the

world's biodiversity. The importance of Andean biodiversity is well recognized within each of the countries as well as internationally. As a result, considerable attention is given to the need to preserve biodiversity while promoting social and economic development. Nevertheless, economic development has led to a variety of pressing environmental issues that include: deforestation, water and air pollution, soil erosion, desertification, loss of biodiversity, damage to ecologically sensitive areas and a variety of problems associated with both the cultivation and eradication of illegal drugs.

Despite progress on environmental issues, the Andean countries still face challenges as the region seeks to protect the environment and develop the economy. Tables 3 and 4 (Annex II) summarize selected land use data and biodiversity indicators for the Andean nations 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.

Environmental Trends in Colombia[1]

Colombia is the fifth-largest country in Latin America by area and the third-largest by population. Colombia ranks second, after Brazil, in biodiversity. For much of the past century, Colombia was a model of Latin American economic stability and success as well as a leader in developing environmental policies and laws. However, problems in the world coffee market, an escalating civil war, large fiscal deficits, an expensive security build-up and a falling currency resulted in slow growth. This, in turn, had detrimental effects on what had been forward-looking Colombian environmental policies.

Legal Regime

Colombia has had environmental programs and regulations in place for several decades. Between 1968 and 1993, the federal government's environmental responsibilities were carried out by the National Institute of Renewable Natural Resources (INDERENA). During this period Colombia also set up a regional governing network, the Corporaciones Autonomas Regionales (Regional Autonomous Corporation--CAR), whose responsibility included, but was not limited to, environmental matters.

In 1974, Colombia implemented a National Renewable Resources and Environmental Protection Code, which was one of the world's first comprehensive environmental protection acts. Under

[1] Information for this section was drawn from the following sources: República de Colombia, Ministerio de Ambiente, Viviendo, y Desarrollo Territorial, Sistema Nacional Ambiental, Normatividad Ambiental (available at http://web.minambiente.gov.co/normatividad/); UNEP, Latin American and Caribbean Region, "Cumbre de Johannesburgo 2002, Reseña de Colombia" (available at http.//www.un.org/esa/agenda21/natlinfo); and Bureau of National Affairs, International Environment Reporter, 'Colombia," Vol. 216, No. 178, pp. 0101-0301, Washington, D.C., 2002.

that act, INDERENA shared environmental responsibilities with the ministries of Health, Public Works, Defense, and Energy, the National Planning Department, departmental governments and municipal authorities.

In 1993, Colombia passed a law that established the Ministry of Environment, and created 15 new corporaciones autonomas regionales that were dedicated solely to environmental matters. The 1993 law also established a National Environmental Council to coordinate environmental programs among the various ministries that form the government.

The Colombian Constitution was approved in 1991 and contains 23 articles related to environmental protection. The Constitution also sets up a structure for regional and local participation in environmental management.

Despite these advances in environmental legislation and administration, concerns have been raised that restructuring and changing priorities may weaken Colombia's environmental legal regime.

Natural Resources

Colombia has 741,000 river beds that give it the world's fourth largest flow of water relative to its surface area. These rivers provide more than half of the irrigation for the Amazon basin. Colombia is also one of the most biologically rich countries in the world, with 21 distinct bio-vegetational zones, five major watersheds, enormous wetlands, plentiful lakes, a dense network of rivers and rich deposits of underground water. In Latin America, Colombia is second only to Brazil in terms of biodiversity. A 1999 Colombian study counted 26,000 species of plants, and the figure could be higher, since 30 percent of its territory is virtually unstudied.

All three Andean countries have signed the 1994 Convention on Biological Diversity, which gives states control over their genetic resources. They also signed the Common Industrial Property Regime of 2000, which prohibits the patenting of plants, animals or any other living material in the Andean region and gives indigenous communities rights to their traditional knowledge.

About 79 percent of Colombia's 114-million-hectare area is suited to forests, although only 46 percent of the land is now covered by forests. Colombia has 14 million hectares of agricultural land and 19 million hectares of grazing land.[2]

Colombia has substantial mineral reserves as well, including one of the world's largest deposits of oil discovered in recent decades (Cusiana fields), one of the world's largest open coal mines (el Cerrejon) and significant deposits of emeralds, nickel and natural gas.

Environmental Pressures

[2] Additional data are provided in tables 3 and 4 (annex II).

Many of Colombia's natural resources face pressure from rapid population growth, increasingly intensive agriculture and accelerating urbanization. Other pressures arise from deforestation, land use changes that disturb natural forests, mineral extraction, poor management of urban and industrial wastes, hydroelectric projects and highway construction. Deterioration of ice caps on the summits of the Andes and Sierra Nevada mountains and marine pollution also compound Colombia's environmental problems.

Colombia's civil war and its illegal drug trade also are taking a toll on its environment. Coca, poppies and marijuana require special terrain and climate conditions and, as a result, cultivation is concentrated in formerly wild rainforest regions, especially in the basins of rivers in the southeast that flow into the Amazon. The drug trade, from cultivation to distribution, has led to land-clearing, soil erosion, deforestation and the dumping of chemicals into streams. The profits from illegal drug trade also stimulate massive colonization of regions with sensitive ecosystems.

Pollution from heroin production is acute in the highland regions, which are crucial reserves for Colombian waters. Contamination also spreads to large lowland zones, where rivers supply water to 70 percent of the country.

This water pollution trend is exacerbated by poorly regulated urban wastes and poorly regulated cattle ranching and potato farming in Colombia. As one example, in 2002, about 95 percent of Colombian municipalities did not treat sewage, but rather dumped these wastes directly into rivers.

Environmental Damage

Water pollution is one of the most crucial issues facing Colombia today. The pollution reflects not only unchecked effluents from illegal drug production, but also untreated urban residential, agricultural and industrial waste flows. As a result of these problems, the Magdalena River, the country's major river, is in crisis and its traditional fishing economy is threatened.

Biodiversity also is threatened by rapid changes in land use. According to the Colombian Institute of Exact, Physical and Natural Sciences, Colombia has lost 30 percent of its biological diversity in recent decades.[3] In 2000, the Institute estimated that deforestation had affected about 70 percent of the Andean zone and that about one-third of Colombia's vegetative cover had disappeared in the last 30 to 40 years. Additionally, the Institute estimated that Colombia accounted for about five percent of world deforestation in the 1980s.

[3] See: http://www.accefyn.org.co/ for additional information (contents in Spanish).

Colombia is making an effort to address some of the water pollution issues facing the country. In early 2004, the government secured a $28 million loan from the Inter-American Development Bank for protection of river basins. Colombia also is completing arrangements for World Bank loan to help establish a nationwide water-management system.

Regulation

Colombia has some of the most comprehensive and up-to-date environmental regulations in Latin America, and its environmental laws have been used as a model by a number of developing countries. But civil war, inadequate budgets, recession and a weak tax base have slowed advances in implementing and enforcing environmental regulations. Additionally, because of distance and weak government political presence, environmental enforcement in rural and frontier zones has always been weak. However, the enforcement situation is better in major urban areas, where the state is able to exercise more authority.

Environmental Trends in Ecuador[4]

A long period of economic instability in Ecuador, coupled with weak environmental enforcement, has resulted in serious environmental setbacks in recent years.

Legal Regime

Environmental protection is embodied in Ecuador's 1998 Constitution, which states (in Article 91) that citizens have the right to live in a clean environment and to bring judicial action to ensure that environmental protections are in place. Although the Constitution guarantees environmental protection, Ecuador's environmental laws are so recent – many dating only from 2000 or later – implementation of a legal regime has been uneven and at times chaotic. Examples include the Environmental Management Law and Environmental Secondary Laws, which were designed, in part, to ensure coordination within a National Decentralized System of Environmental Management. The Environment Ministry has the lead role in coordinating all these agency efforts. However, the number of agencies involved in environmental management, combined with overlapping responsibilities, has produced inefficiency and conflict.

Ecuador also has a series of national laws aimed at prevention and control of pollution, protection of forests, protecting and providing for clean water, controlling air emissions from fixed sources and other laws aimed specifically at protecting public health. A special law also exists for the conservation and sustainable development of the ecologically sensitive Galapagos Islands.

[4] Information for this section was drawn from the following sources: República del Ecuador, Ministerio del Ambiente, Legislación y Normativa Ambientales, "Marco Legal," and "Legislación y Normativa," (legal databases available at http://www.ambiente.gov.ec); and UNEP, Latin American and Caribbean Region, "Cumbre de Johannesburgo 2002, Reseña de Ecuador" (available at http.//www.un.org/esa/agenda21/natlinfo).

Enforcement

All environmental laws in Ecuador are legally enforceable through administrative, civil and criminal procedures, and Ecuador's Environment Ministry has the ability to refer cases to the Ecuadorian Attorney General for criminal prosecution. However, as a practical matter, enforcement in most areas of environmental law has been weak, and fines and penalties are rarely imposed. Historically, the Ecuadorian judicial system has been inefficient and underfunded, allowing large backlogs of cases. In addition, Transparency International has identified Ecuador as the second most corrupt country in Latin America in its 2004 annual ranking.[5]

Controls on the environmental impacts of some key industries, most notably oil exploration and extraction, are weak, ineffective or absent. Regulatory issues affecting the oil industry are handled by the Ministry of Mines, not the Ministry of Environment. In addition, PetroEcuador, the state oil company, has a special legal status that has been used to avoid many environmental responsibilities.

Natural Resources

Ecuador has substantial oil resources and rich agricultural areas. Because it includes the Amazon rainforest, the Andes, coastal lowlands and the Galapagos islands, Ecuador is the world's most biodiverse country in relation to its area. Its forests are home to bears, jaguars, a profusion of birds and many rare plants.

Ecuador exports a variety of primary products such as oil, bananas and shrimp, but at least half of the economy is based on extraction of oil and gas reserves. Ecuador's portion of the Amazon basin is believed to contain some 26 billion barrels of oil, enough to make the country a producer comparable to Nigeria or Mexico. Oil exports already account for more than 40 percent of Ecuador's export earnings, even though exploration and development of the Amazon fields has yet to begin in earnest.

Ecuador also is home to the Galapagos Marine Reserve, which was declared a United Nations Educational, Scientific and Cultural Organization World Heritage Site in December 2001.

Environmental Pressures

Environmental pressures in Ecuador include threats to biodiversity in ecologically sensitive areas of the Galapagos Islands, deforestation, soil erosion, desertification, water pollution and pollution from oil production wastes in portions of the Amazon Basin.

Ecuador is losing forests faster than anywhere else in South America. Estimates indicate that 150,000 hectares (370,000 acres) of primary forest are felled each year, and unofficial sources put the figure twice as high. This means that half of the country's forests have been degraded or

[5] Further information is available at: http://www.transparency.org.

destroyed in the past three decades. Illegal logging is a significant contributor to this problem. Ecuador's Wood Industry Association estimates that 70 percent of all timber sold in the country is illegally harvested.

Environmental Damages

Within the Galapagos Island chain, overfishing has substantially depleted stocks of sea cucumbers and lobsters.

Oil exploration and production, as well as crude oil pipeline construction, has contributed to deforestation, soil erosion and water contamination in the Ecuadorian portion of the Amazon Basin.

Environmental Trends in Peru[6]

Peru made a number of rapid advancements in promulgating environmental regulations throughout the 1990s and beyond, despite a changing and sometimes volatile political climate and a slow economy. However, implementation of many of these laws has been hampered by failure to coordinate management policies, inadequate funding and lack of political will. Slow implementation of laws for natural resource protection has allowed natural resource depletion trends to continue. Mahogany forests, marine resources and marine water quality are particularly threatened.

Legal Regime

The concept of environmental protection is embodied in Title III, Chapter II, ("Environment and Natural Resources") of Peru's 1993 Constitution. Article 200 outlines various government obligations to provide citizens with legal tools they can use to pursue legal remedies for environmental wrongs. Additionally, Chapter II of the Constitution reserves the right to develop all of Peru's natural resources to the national government, promotes the use of natural resources, obligates the government to promote conservation of biological diversity and protected natural areas and obligates the government to promote sustainable development of the Amazon Region through appropriate legislation.

The Constitution is more recent than the 1990 Peruvian Environment and Natural Resources Code, which set responsibility for administration of environmental policies across several ministries. As a result, a Peruvian Congressional Commission is in the process of preparing a

[6] Information for this section was drawn from the following sources: Republica de Peru, Consejo Nacional de Ambiente, "Legislacion Ambiental," and specific sector databases, "agricultura, defensa, energía y minas, producción, salud, transportes y communicaciones, turismo, legislacion tributaria, proyectos" (available at http://www.conam.gob.pe/Modulos/home/leg_amb.asp); UNEP, Latin American and Caribbean Region, "Cumbre de Johannesburgo 2002, Reseña de Peru" (available at http.//www.un.org/esa/agenda21/natlinfo); and Bureau of National Affairs, International Environment Reporter, 'Peru," Vol. 282, No. 175, pp. 0101-0301, Washington, D.C., 2001.

comprehensive update of Peru's Environment and Natural Resources Code in order to establish a new environmental framework law for the country.

Peru does not have an environmental ministry, but spreads environmental protection program management across several ministries, in a number of cases putting ministries in the position of regulating and promoting sectors for which they are responsible. The National Council of the Environment (CONAM) acts as a coordinating body on environmental policies that guide the activities of government, the private sector and civil society. Legislation that would update the law governing the structure and functions of CONAM has been approved by the Congress (in 2004) and awaits action by the President.

The National Natural Resources Institute (INRENA) acts as a semi-autonomous institution in the Ministry of Agriculture. Programs related to the sustainable use of renewable natural resources, conservation of biological diversity and rural land management are administered by INRENA.

Throughout the 1990s, Peru took several legislative steps that were designed to broaden the scope of natural resource and environmental protection. The law creating CONAM was implemented in 1994, about the same time that Peru implemented a framework law on private investment that contained some environmental components. A 1990 law established a System of Natural Areas Protected by the State. In the period 1997-2001, laws were passed to address the sustainable development of natural resources and biological diversity, protection of natural areas and water resources, solid waste disposal and national environmental impact assessment. The nation's Supreme Court also has issued decrees establishing strategic regulations on biodiversity and regulations to implement the 1997 law establishing protected natural areas.

Enforcement

Peru has a highly decentralized form of environmental enforcement based on regulations that are specific to industries or industry or sectors of the economy. Several sectoral offices have their own individual sets of administrative sanctions. These include authorities for forestry, mining, hydrocarbons, electricity and manufacturing.

With enforcement occurring over such a wide variety of government agencies, it has been difficult for the Peruvian government to coordinate institutions responsible for law enforcement, judicial and environmental program management. The national government is taking steps to improve coordination among these various institutions.

Peru's 1990 Environment and Natural Resources Code gave Peruvian citizens some access to civil courts to address environmental issues. The 1990 Code gave citizens the right to file injunctions (amparos) in civil court that can result in legal actions to stop environmental law violations. However, the amparos do not address issues of compensation for damages or issues of environmental remediation. The 1990 Code also established discovery processes (procesos de conocimiento) that are somewhat similar to filing civil lawsuits addressing environmental concerns.

Article 200 of the new Peruvian Constitution gave citizens four new legal tools that include: a governmental obligation to provide legal remedies for infractions of environmental law; a similar governmental obligation to force government authorities to comply with relevant environmental laws; a governmental obligation to provide "popular action" to more generally correct violations of environmental law; and a guarantee that violations of the environmental provisions of the Constitution will be considered by Peru's Constitutional Court.

In circumstances where there is no governing sectoral agency, CONAM can apply administrative sanctions. CONAM and other government officials with environmental powers can impose administrative fines, but the fines are generally very modest and do not act as a deterrent. Additionally, administrative judicial proceedings allow environmental offenders a large number of appeals.

Natural Resources

Peru has three distinct geographic regions, and each has distinctive environmental features and challenges. The western part of Peru along the Pacific Ocean is mostly desert, punctuated by several dozen small rivers that flow down from the Andes Mountains. The Andes themselves form the backbone of Peru, running north-south and featuring many permanent glaciers. The eastern part of Peru is marked by cloud forests and a vast area of lowland rainforests that make up the Peruvian portion of the Amazon jungle.

These distinct regions provide Peru with a staggering amount of biodiversity, which led Conservation International to declare Peru as one of only 17 countries with "megadiversity." Peru is home to 1,703 bird species, 3,532 butterfly species, 1,200 fish species, 175 types of reptiles, and 3,2000 native plant species. Many of these species are contained in the 675,000 square kilometers of Amazon region in Peru.

Peru has an abundance of certain types of minerals, notably gold and copper, and a lengthy coastline that supports a thriving fisheries sector. Peru's major exports consist of gold, copper and fish meal.

Peru's Amazon forests contain commercially valuable trees, such as mahogany, cedar and rosewood and oil and gas reserves that are not yet fully mapped. Peru's 78 million hectares of forests cover 70 percent of the country's territory. Of this, more than 65 million hectares are tropical forests, many of which are among the most biodverse areas in the world.

Environmental Pressures

Social and demographic factors in Peru generate widespread pressures on the environment. Peru's society is marked by rapid population and urban growth and widespread poverty. As is common in many Latin American countries, a large portion of Peru's population (about 40 percent) live in poverty, and more than 70 percent of the population reside in urban areas. This combination produces air and water pollution, soil erosion and deforestation.

Deforestation is particularly acute and is exacerbated by illegal logging and subsistence agricultural practices. The rapid rate of deforestation threatens to substantially reduce Peru's rich biodiversity. Peru's national government has established a number of protected forest areas, but these are threatened by weak regulation and illegal activity.

Additionally, unsustainable fishing practices, production of fish meal and nearly unchecked municipal wastes from large cities along Peru's coasts have all contributed to severe deterioration of Peruvian coastal water quality and equally severe depletion of marine resources.

Air pollution is particularly acute in the larger urban areas of Peru, most notably in Lima. Air quality regulations are very recent in Peru, and have not yet had time to effectively address the worst urban air pollution. It was only in 1998 that technical working groups were authorized to establish national standards for air and water quality, as well as maximum allowable limits for polluting gas emissions and liquid effluents. Water pollution is a problem as well. Here, too, efforts are being made to update inadequate and ineffective legislation.

Peru also suffers from periodic threats from the El Niño weather phenomenon. This periodic, abnormal warming of the Pacific Ocean affects rainfall patterns and has had devastating effects on Peruvian agriculture, including both droughts and flooding. El Niño also affects fish catches in the Pacific Ocean.

Environmental Damage

Deforestation is the most significant and widespread environmental damage in Peru. Subsistence agriculture and destructive logging have reduced forest area by an estimated 9.5 million hectares as of 2000. This amounts to a loss of about 13 percent of Peru's native forests. Isolated reforestation efforts have been only partly successful: less than 600,000 hectares have been restored. The estimated annual deforestation rate is between 200,000 and 300,000 hectares. Continued forest destruction at the current rate could mean the loss of up to 40 percent of the genetic resources of Peruvian forests. Peruvians consider many of these resources to be important for agriculture, forestry and new medicines.

C. U.S. – Andean Goods Trade

U.S. trade with Colombia, Ecuador and Peru has grown substantially since the ATPA was enacted in 1991. Although small relative to total U.S. good trade (roughly 1 percent), the United States is a major market for the Andean countries and these countries represent important markets for selected U.S. exporters. Two way trade was just over $18 billion in 2003 and the stock of U.S. foreign direct investment in these countries was $6.9 billion. Table 5 (annex II) summarizes United States goods trade with Colombia, Ecuador and Peru.

The United States is the principal trading partner for Colombia and Ecuador and a major trading partner (accounting for 25 percent of exports) for Peru. Colombia and Peru each account for about 40 percent of U.S. imports under the ATPA; imports from Ecuador are slightly less than

20 percent of the total. The United States is the destination for more than 40 percent of Colombia's exports.

Between 1991 and 2003, U.S. exports to the region increased more than 75 percent to nearly $7 billion. While still below the levels experienced in the mid-1990s, U.S. exports to the region have increased modestly in each year since 1999, and the United States is the largest single exporter to each of these countries. Major U.S. exports to the region include: non-electrical machinery (accounting for about 25 percent of total U.S. exports to the region); electrical machinery; organic chemicals; cereals; plastics; optical, photographic, medical and measuring instruments; and aircraft and parts. Exports to Colombia account for more than half of U.S. exports to the region. Excluding Canada and Mexico, Colombia is the largest purchaser of U.S. agricultural exports in the Western Hemisphere.

U.S. imports from Colombia, Ecuador and Peru now total $11.5 billion. Cut flowers and petroleum are the major U.S. imports from Colombia; petroleum accounts for more than half of U.S. imports from Ecuador; and Peru's major goods exports to the United States include copper cathodes, fresh asparagus, jewelry and parts, unwrought zinc and onions.

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

An FTA with the Andean countries responds to direction from the Congress in the ATPDEA. The FTA is expected to enhance our efforts to strengthen democracy and support for the fundamental values in the region such as, respect for internationally recognized worker rights, greater respect for the rule of law, sustainable development and accountable institutions of governance.

The United States will build on experience with other FTAs and the ATPA, which has driven the U.S. – Andean trade relationship since 1990. By moving from unilateral trade preferences to a reciprocal FTA, the U.S. - Andean FTA will seek to eliminate duties and unjustified barriers to trade in goods of both U.S. and Andean origin. The U.S. - Andean FTA 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 the Andean countries were as follows:

- *Trade in Goods*:
  - Seek to eliminate tariffs and other duties and charges on trade between the Andean countries 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 the Andean countries 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 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 the Andean countries that will support achieving the U.S. objective in the WTO negotiations of eliminating all export subsidies on agricultural products, 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 markets for U.S. textile and apparel products.

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

– Seek rules to require that customs operations in the Andean countries 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 an FTA with the Andean countries apply only to goods eligible to receive such treatment, without creating unnecessary obstacles to trade.

– Seek terms for cooperative efforts regarding enforcement of customs and related issues, including trade in textiles and apparel.

· *Sanitary and Phytosanitary (SPS) Measures:*

– Seek to have the Andean countries reaffirm their WTO commitments on SPS measures and eliminate any unjustified SPS restrictions.

– Seek to strengthen collaboration with the Andean countries 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 Andean countries reaffirm their WTO TBT commitments and eliminate any unjustified TBT measures.

– Seek to strengthen collaboration with these countries on implementing the WTO TBT Agreement and create a procedure for exchanging information on TBT-related issues.

· *Intellectual Property Rights*:

– Seek to establish standards to be applied in the Andean countries that build on the foundations established in the WTO Agreement on Trade-Related Aspects of Intellectual Property Rights and other international intellectual property agreements, such as the World Intellectual Property Organization Copyright Treaty (WIPO) and the WIPO Performances and Phonograms Treaty, and the Patent Cooperation Treaty.

– In areas such as patent protection and protection of undisclosed information, seek to have the Andean countries apply levels of protection and practices more in line with U.S. law and practices, including appropriate flexibility.

– Seek to strengthen procedures in the Andean countries to enforce intellectual property rights, such as by ensuring that their 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 the Andean countries that provide for compensation of right holders for infringements of intellectual property rights and to provide for criminal penalties under their respective laws 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 services markets in the Andean countries. Pursue a comprehensive approach to market access, including any necessary improvements in access to the telecommunications, financial services, energy, express delivery and other sectors.

– Seek improved transparency and predictability of regulatory procedures, specialized disciplines for financial services, and additional disciplines for telecommunication services and other sectors as necessary.

· *Investment:*

– Seek to establish rules that reduce or eliminate artificial or trade-distorting barriers to U.S. investment in the Andean countries, while ensuring that Andean 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 the Andean countries 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 the Andean countries and to address unjustified barriers to the establishment and operation of U.S. investments in these countries.

– Provide procedures to resolve disputes between U.S. investors and the governments of the Andean countries that are in keeping with the trade promotion authority goals of being expeditious, fair and transparent.

· *Electronic Commerce*:

– Seek to affirm that the Andean 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 the Andean countries to be fair, transparent and predictable for suppliers of U.S. goods and services who seek to do business with these countries.

– Seek to expand access for U.S. goods and services to government procurement markets in the Andean countries.

· *Transparency/Anti-Corruption/Regulatory Reform*:

– Seek to make administration of trade regimes in the Andean countries more transparent and pursue rules that will permit timely and meaningful public comment before trade-related measures are adopted.

– Seek to ensure that the Andean countries apply high standards prohibiting corrupt practices affecting international trade and enforce such prohibitions.

· *Trade Remedies:*

– Provide a safeguard mechanism during the transition period to allow a temporary revocation of tariff preferences if increased imports from the Andean 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 appropriate commitments by the Andean countries to the effective enforcement of their environmental laws.

  - Establish that the Andean 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 Andean 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 Andean countries to effectively enforce their labor laws.

  - Establish that the Andean 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 laws and practices, establish procedures for consultations and cooperative activities with the Andean 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.

- *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 FTA is taking into account other legitimate U.S. objectives including, but not limited to, the protection of health, safety, environment, and essential security and consumer interests.

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 U.S. - Andean FTA 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 U.S. - Andean FTA. Although possible domestic impacts are the primary concern of this environmental review, global and transboundary impacts are to be considered as appropriate and prudent.[7] Section III.C also describes possible effects on the U.S. environment resulting from economic effects in the Andean countries and shared ecosystems. Section III.D considers the extent to which the U.S. - Andean FTA might affect U.S. environmental laws, regulations, policies and/or international commitments.

A. Public 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 69 *Fed. Reg*. 19261; April 12, 2004). A notice in the *Federal Register* also requested public comments on the overall negotiation and announced a public hearing on the proposed FTA (see 69 *Fed. Reg*. 7532, February 17, 2004). Comments and testimony addressing environmental issues received in response to that notice were taken into account in the preparation of this Interim Review.

Written Comments

Two written comments were received regarding the U.S. – Andean FTA. One comment provided advice on the process of conducting the environmental review and raised a wide range of environmental concerns. The commentators noted the wealth of biodiversity in the Andean region, the size of indigenous populations (as well as their close link to the region's biodiversity) and the role of extractive industries in the economies of all three countries. Topics suggested for particular attention in the review of the FTA included: agriculture, indigenous peoples, mahogany and illegal logging, aquaculture, port facilities and the investment provisions of the agreement. A second comment requested that duty free access to the U.S. markets not be

[7] See section I.B, above.

permanently granted for sugar, noting differences in environmental standards between the United States and the Andean countries.

Public Outreach Efforts

In addition to providing opportunities for written comments and testimony in response to notices in the Federal Register, the U.S. Government held public meetings in each of the Andean countries with the objective of improving communication on FTA-related issues with environmental organizations, the private sector and the leaders of indigenous groups active in each of the countries. These meetings provided opportunities to raise questions and express concerns. More than 200 people participated in the events held in Lima, Peru, Quito, Ecuador and Bogota, Colombia. Participants represented a wide variety of local, regional and international organizations. In Ecuador, leaders of federations of indigenous people raised a number of concerns regarding the negotiating process and possible effects of the FTA, with a particular emphasis on possible environmental effects. In Colombia, NGOs and the private sector representatives expressed optimism that the FTA may bring about new attention to environmental issues, laws and policies. The U.S. Government continues to work with its Andean counterparts to ensure that civil society is actively involved in the development and implementation of the Environment Chapter and the FTA.

B. Potential Economically-Driven Environmental Impacts

The economies of the three Andean countries are important markets for some U.S. producers and exporters, but the impact of the U.S. - Andean FTA on total U.S. production through changes in U.S. exports appears likely to be very small. Exports to these countries currently account for about one percent of total U.S. exports (see table 5, annex II) and a very small portion of total U.S. production. Even if substantial increases in U.S. goods exports to these countries are a result of the FTA, 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 U.S. - Andean FTA's direct environmental effects in the United States, no basis for such concerns was identified in interagency analysis.

Liberalization of services can be expected to have an economic impact in the United States although here, too, the effect of the U.S. - Andean FTA 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).

C. Transboundary and Global Issues

While the environmental impacts of expected economic changes in the United States attributable to the U.S. - Andean FTA 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. These were provisionally identified through public comments in response to a notice in the Federal Register (see section III.A) and through an open-ended scoping process among agencies with environment, trade and economic expertise. We subsequently eliminated topics from further and more detailed analysis when initial findings revealed that there was no identifiable link to the U.S. - Andean FTA. The following topics warranted further consideration.

1. Economically-driven Environmental Effects in the Andean Region

As compared to its effects in the United States, the U.S. – Andean FTA may have relatively greater impacts on the economies of Colombia, Ecuador and Peru and, through those impacts, effects on their environment. In the short term, however, we do not expect a significant increase in Andean exports to the United States. Significant trade preferences and market access are already provided by the ATPDEA and, as a result, we do not anticipate that the U.S. - Andean FTA will cause a rapid and significant increase in industrial or agricultural development.

To the extent that the U.S. - Andean FTA has significant effects on the Andean economies, over time, the environmental effects in Colombia, Ecuador and Peru may be both positive and negative. The FTA may further increase investment, trade and production in the region, which may be associated with further pressure on the environment. On the other hand, some new investment may bring environmentally-beneficial technologies and production methods as well as higher standards for private sector environmental performance. In addition, proposed commitments in the FTA, such as those to effectively enforce environmental laws, may have a positive effect, especially when coupled with capacity-building and environmental cooperation activities. The FTA 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.

2. Migratory Birds

Migratory and resident species of birds are a critically important global resource. In the United States and in the Andean countries, 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. Nevertheless, many bird species face both direct and indirect threats to survival, many 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 132 neo-tropical migratory species migrate through or depend on the tropical Andes for wintering habitat. This region (an area consisting of Bolivia, Colombia, Ecuador and Peru) is recognized widely as one of the highest global priorities for conservation investment, since it holds exceptionally high biodiversity and is suffering from acute habitat loss. Declines in the populations of many of these species have been a cause for

growing concern. Twenty-nine are listed by the U.S. Fish and Wildlife Service (2002) as "Birds of Conservation Concern" and according to the 2004 IUCN Red List, five are of global conservation concern: Buff-breasted Sandpiper (*Tryngites subruficollis*), Elegant Tern (*Sterna elegans*), Olive-sided Flycatcher (*Contopus borealis*), Golden-winged Warbler (*Vermivora chrysoptera*), and Cerulean Warbler (*Dendroica cerulea*).

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. Forest cover has been significantly reduced or degraded in all three countries and all of the countries in the region face relatively high rates of deforestation (see table 3, annex II).

Production for export, including export to the United States, is a factor in deforestation. For example, coffee is a major export crop whose production has significant impacts on habitat for migratory birds. Efforts are being made to encourage the expanded use of "bird-friendly" production methods (such as shade-grown coffee) in order to protect existing habitat and eliminate the use of bird-deadly pesticides, herbicides and fertilizers. Nevertheless, existing patterns of production, with predominant reliance on sun-grown production methods, have deleterious effects on the status of migratory bird populations.

The tariff provisions of the proposed FTA are not likely to have an impact on migratory bird habitat because applied tariffs on most products, including those linked to deforestation and forest degradation, are low or at zero. Although the tariff-related production and trade effects appear likely to be small, it is more difficult to predict the effects of the FTA on investment in the sector. For example, investment may increase as a consequence of a variety of factors that create a more stable and predictable investment climate. The environmental effects of investment in sectors such as agriculture, whose activities may affect migratory bird habitat, may be either positive or negative.

There may be opportunities to address migratory bird issues in connection with the U.S. - Andean FTA, for example through cooperative activities. Recent cooperative activities address a number of concerns related to migratory birds (see annex I). The Administration welcomes public comments on the manner in which these issues might be addressed in the context of the proposed FTA or through other mechanisms, including public views on possible areas for cooperative activities.

3. Wildlife Trade and CITES

The United States and the Andean countries contain some of the world's greatest concentrations of biological diversity in species of birds, mammals, insects, reptiles, amphibians and plants, as well as genetic diversity of important food crops such as the potato. Species diversity in the Andean countries is found across all of the region's ecosystems, including lowland tropical rainforests, Andean mountain ecosystems, cloud forests, grasslands and coastal and marine ecosystems. The Galapagos Islands of Ecuador were one of the first sites designated under the World Heritage Convention, recognizing their unique and unusual species.

All of the Andean countries are exporters of products of wild flora and fauna, but the majority of this trade is regulated under the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES). CITES is an agreement designed to provide for cooperation to prevent international trade in specimens of wild animals and plants from threatening their survival. CITES is implemented by Parties through domestic laws and regulations.

The United States and all of the Andean countries are Parties to CITES. In the United States, CITES is implemented though 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. In the United States, the ESA prohibits import, export, taking, or selling in interstate commerce of any protected species. Trade in CITES-listed species requires the exporting country to certify that the specimen was legally harvested and (in the case of CITES Appendix I and II) that harvest was not detrimental to the survival of the species.

Implementation of CITES varies widely in the Andean countries. The CITES National Legislation Project evaluates each Party's legislation to ensure that it meets the requirements for implementation of the Convention.[8] Although Colombia was rated in category 1 (the highest), Ecuador and Peru were initially found to have some deficiencies in their implementing legislation (category 2 in the National Legislation Project) and were given a deadline for enacting new implementing laws. Failure to enact adequate legislation can lead to a recommendation by the Standing Committee that all Parties take further measures (which could include restrictions on, or suspension of commercial trade in CITES-listed species) with respect to the Parties in categories 2 and 3.

At its 50th meeting (March 2004), the Standing Committee adjusted the deadline for Ecuador and Peru based on evidence of progress in enacting adequate legislation. This progress was reviewed again at the 51st meeting of the Standing Committee (October 2004) and at that time, Ecuador had enacted legislation (now being reviewed by the CITES Secretariat), but Peru had not. Both countries were kept in category 2.[9] In its report to the Standing Committee, the CITES Secretariat noted the high priority for action by Peru because of its high volume of trade in CITES-listed species. The category 2 classification for Ecuador and Peru is expected to be reviewed at the 53rd meeting of the Standing Committee, in early 2005.

Public comments drew particular attention to concerns about the effectiveness of CITES enforcement and management of mahogany in Peru. Peru is the major producer and exporter of big-leaf mahogany (*Swietenia macrophylla)*, now listed in Appendix II of CITES. The United States is the largest single market for big-leaf mahogany. Harvesting of mahogany may threaten not only the species itself, but also associated biological communities and the species found within them.

The United States supported the use of CITES to regulate trade in mahogany. Since the CITES

[8] Further information is available at: http://www.cites.org.

[9] Bolivia has made good progress and is in the process of drafting legislation to fully implement CITES.

listing (with an effective date of November 2003), the United States, with other donors, has provided financial and technical support to assist Peru and other range countries in meeting their CITES obligations. The United States supported and participated in meetings of the CITES Mahogany Working Group and proposed and financed capacity building activities through the International Tropical Timber Organization (ITTO). These activities, such as regional capacity-building workshops, have enhanced cooperation among governments, civil society and the private sector and have assisted range countries as well as others in their implementation of the requirements of CITES for mahogany (see annex I, section C of this report for a description of recent activities in this area).

In September 2003, the CITES Secretariat completed a review of significant trade in queen conch (*Strombus gigas*). The review was undertaken out of concern that international trade in this species may be conducted at unsustainable levels and that there may be high levels of illegal, unreported and unregulated (IUU) fishing for this species. The review consisted of a lengthy analysis of the queen conch fishery in the Wider Caribbean and included a high level of consultation with the affected countries. In addition to discussions with the CITES Secretariat, the consultation was conducted under the auspices of the International Queen Conch Initiative, coordinated by the Caribbean Fishery Management Council, an arm of the National Marine Fisheries Service. As a result of the review, the Standing Committee of CITES identified Colombia as a country for which sustainable trade in this species was "of possible concern." As such, Colombia was directed to establish cautious catch and export quotas for queen conch and to provide information on the basis of these quotas to the Secretariat. Colombia also was directed to design and implement a long-term population monitoring program for this fishery. The CITES Secretariat is in the process of reviewing information on Colombia's compliance with these recommendations in preparation for further discussions on this topic at the 53rd meeting of the Standing Committee scheduled for May 2005.[10]

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), the National Marine Fisheries Service and counterparts in the Andean countries. The FTA may provide opportunities to reinforce these efforts through additional cooperative activities carried out through the associated cooperative mechanism, and through provisions proposed for the Environment Chapter such as the commitment to effectively enforce environmental laws.

Given the legal protections for wildlife and endangered species in place in both the United States and in the Andean countries, the FTA appears unlikely to contribute to an increase in illegal trade of wildlife or endangered species. Instead, the FTA may help to reduce illegal trade by facilitating exchange of information about patterns of and potential or actual problems with illicit wildlife trade. Proposed provisions related to customs cooperation have the potential to enhance cooperation on a variety of trade-related matters, including related to combating illegal wildlife trade and CITES enforcement. We invite public comment on these preliminary findings.

[10] For further information, see: http://www.strombusgigas.com.

4. Invasive Species

Public comments and interagency analysis identified invasive species as an environmental concern related to the FTA.[11] Commodity trade can provide pathways for invasive species, and the introduction of invasive species can result in harmful effects on the environment and economy of the host country. The United States and the Andean countries face and recognize risks associated with invasive species.[12]

The trade pathways for invasive species provide varying degrees of risk of environmental harm. Trade-related pathways that involve a risk of invasive introductions include the movement of vehicles used in transporting commodities (e.g., ballast water in ships), or the transport of products and packaging that contain potentially invasive organisms (e.g., grains that contains weed seeds). Some invasive species are also introduced on ornamental plants, fruits, aquarium fish, and through other commonly traded products**.**

The risk that species from one region will become invasive in another depends in part on the ecological and climactic conditions in each country. Where the territories of trading partners have similar ecological or climactic conditions, and they are separated by geographic barriers, each may be vulnerable to invasions by species native to the other. The United States and the Andean region are separated by considerable barriers -- high mountain ranges and long distances – but connected by the narrow Panamanian isthmus which has been a bridge for natural migration of many species over time.

Although the continental U.S. and the Andean countries differ in their latitudinal ranges, they contain some similar but previously isolated climatic and vegetation zones, especially associated with altitudinal gradients. The Andean countries tend to have tropical climates for which counterparts in the United States are relatively limited. As a result, shared ecological vulnerability associated with invasive species is relatively lower, but not insignificant. Similar marine environments along portions of the Pacific Coasts of the Andean region and North America create the possibility for introduction of marine organisms through ballast water discharge or other ocean shipping-related activity. Species from Andean grasslands, shrub lands, and high elevation forests may find suitable habitats in portions of the United States. In addition, the tropical regions of Hawaii and island territories of the Pacific, as well as south Florida and the Caribbean could be vulnerable to introductions from tropical areas of the Andean countries.

A review of the history of biological invasions between the United States and the Andean region suggests that the baseline risk of invasive species from the region may be significant. For

[11] The term “invasive species” refers to species not native to a particular ecosystem that are intentionally or unintentionally introduced as a result of human activities and cause, or are likely to cause, harm to ecosystems, economic systems or human health.

[12] For the United States, Executive Order 13112 (February 3, 1999) established the Invasive Species Council and commits federal agencies to conducting research on invasive species issues, taking reasonable actions to discourage the introduction of these species into the United States and elsewhere and to undertaking international cooperation aimed at addressing this issue.

example, a database on non-indigenous aquatic species maintained by the U.S. Geological Survey catalogues the presence in U.S. territory of numerous species native to South America, including the Andean region. Ninety-two species native to South America are documented. Of these, the native range of at least twenty species specifically includes one or more of the Andean countries (origins of many species in the database are described by continent or river basin rather than country). These species have established populations in the Southeastern United States and in warm-water springs of several Western states. Most of these species are ornamental fish (e.g. neon tetra, black tetra); an exception is the peacock bass, which was stocked in Florida to control other exotic fishes previously established.

Similarly, the Global Invasive Species Database maintained by IUCN lists several species that are invasive in the United States and originate in South America. These include the notorious cane toad (*Bufo marinus*), which was deliberately introduced to Hawaii, Puerto Rico, the Pacific island territories and the U.S. Virgin Islands, and is native to South America, including the Andean region. The fire ant, *Solenopsis invicta*, is an extremely troublesome invader across much of the Southern United States; its South American home range probably extends into part of the Andean region, though it is not clear which country was the source of the invasion.

The risks associated with invasive species are not limited to species native to the Andean region, as increased travel and trade may also facilitate introduction of species (such as many cosmopolitan weeds) which are native to other parts of the world and invasive in either the U.S. or Andean countries, but have not yet been introduced into suitable habitats of the trading partner.

The risk of introduction of invasive species varies across traded commodities; examples of commodities presenting greater risk of carrying or becoming invasive species include live fish, live plants, seeds and plant parts, cereal grains and timber products. The Andean countries are major exporters of many of these products to the United States. In addition, associated pests and pathogens may arrive as hitch-hikers in shipments of biological materials. The Andean countries (notably Colombia) account for nearly half of all U.S. imports of fresh cut flowers, as well as U.S. imports of foliage and other plant parts besides flowers. Andean FTA partners also are a source of U.S. imports of live ornamental fish..

The United States also may be a source of invasive species. For example, the United States is an exporter of grains; grain trade is a pathway for invasive species, largely through the inclusion of weed seeds. Weeds may be introduced through spillage (e.g. in the vicinity of ports or railroad yards) even where the grain is destined for food or feed rather than sowing.

The FTA will not require alteration to any country's regulatory framework for managing the introduction of invasive species. The FTA also will not require alteration to related regulations, such as those prohibiting or regulating agricultural and other trade for the purpose of protecting against the introduction of agricultural pests or diseases. Nor will it require (or, for that matter, prevent) adding any regulations to protect against the introduction of pests or diseases that may threaten wild native forest or grazing lands, protected natural areas or legislatively designated wilderness.

Our preliminary assessment suggests that there is a risk that invasive species may move between the Andean region and the United States. Experience with species that have already moved between the two regions demonstrates that such a risk is genuine and potentially significant. Our preliminary analysis is inconclusive, however, on whether the FTA, through the potential of increased trade, increases that risk or, through cooperation and consultation, decreases risks associated with invasive species. Through the environmental cooperation agreement that is expected to be part of the FTA (see section IV), the FTA can provide opportunities for cooperation and consultation to reduce risks associated with invasive species. The Administration welcomes public comments on these findings.

5. Tuna/Dolphin

Public comments raised concerns that the FTA could weaken efforts to protect dolphin populations in the eastern tropical Pacific Ocean (ETP) from the adverse affects of commercial fishing.

The Inter-American Tropical Tuna Commission (IATTC), established by international convention in 1950, is responsible for the conservation and management of fisheries for tunas and other species taken by tuna-fishing vessels in the eastern Pacific Ocean. The IATTC provides the Secretariat for the Agreement on the International Dolphin Conservation Program (AIDCP), a legally-binding multilateral agreement which entered into force in February 1999. AIDCP aims to: progressively reduce incidental dolphin mortalities in the tuna purse-seine fishery to levels approaching zero through the setting of annual limits; seek ecologically sound means of capturing large yellowfin tunas not in association with dolphins; and ensure the long-term sustainability of tuna stocks in the Agreement Area, as well as that of related marine resources, taking into consideration the interrelationship among species in the ecosystem. The United States, Ecuador and Peru are members of the AIDCP, while Bolivia and Colombia apply the Agreement provisionally but are not parties.

In order to attain the status of a "cooperating non-party" or "cooperating fishing entity" under the IATTC, non-parties and fishing entities must meet the following requirements: communicate full data on its historical fisheries in the IATTC area, including nominal catches, the number and type of vessels, names of fishing vessels, fishing efforts and fishing areas; communicate annually catch and effort data and size-frequency distribution of the catches; and communicate research programs it has conducted in the IATTC area and share the information and results with the IATTC. Non-parties and fishing entities wishing to be considered as "cooperating" also must meet several compliance requirements, which include: respect all conservation measures in force in IATTC; respect the capacity and limits already in force in IATTC for tuna vessels; inform the IATTC of all the management and conservation measures it takes to ensure compliance by its vessels (such as observer programs, inspection at sea and in port, and Vessel Monitoring Systems); and respond to alleged violations of IATTC measures by its vessels, as determined by the appropriate bodies, and communicate to IATTC the actions taken against the vessels.

During the June 2004 multilateral AIDCP and IATTC meetings in Lima, Peru, Colombia was denied "cooperating non-party" status under the IATTC under the terms of the IATTC and AIDCP Joint Working Group on Fishing by Non-Parties. Colombia's refusal to cooperate with the IATTC's 2004 fishery closure for purse-seine vessels was cited as a particular concern. In the course of the FTA negotiations the United States has emphasized the importance of multilateral conservation efforts such as the AIDCP and has stressed the importance of Colombian cooperation with IATTC.

The provisions of the proposed FTA will not alter or supersede the provisions of the IATTC or the standards of compliance and process of consultation to promote dolphin conservation. On the contrary, through proposed commitments to effectively enforce environmental laws (including those related to implementation of commitments under the IATTC), the Andean FTA can be expected to complement and reinforce existing fisheries management and dolphin conservation activities.

6. Shrimp/Turtle

Seven species of sea turtles are currently included on CITES Appendix I, and all appear in the IUCN Red Data List of threatened species where two species are listed as critically endangered. All sea turtles, except the flatback sea turtle, are protected by the U.S. Endangered Species Act. Sea turtles have been affected by a variety of human activities (exploitation for their shells, meat and eggs, 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.

Recognizing that shrimp trawl fishing 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 South America, this trade restriction has been in place for countries with shrimp fisheries in the Pacific Ocean 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, or adopting a program governing the incidental taking of sea turtles that is of comparable effectiveness to the TEDs-based program in effect in the United States. On April 30, 2004, the Department of State certified 38 countries, including all Andean FTA countries as meeting the requirements set by Section 609 of P.L. 101-162 for continued export of shrimp to the United States.[13]

The provisions of the proposed Andean FTA 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 Andean FTA is expected to provide opportunities to reinforce efforts to protect turtles through proposed obligations to effectively enforce environmental laws and through environmental cooperation activities. The Administration welcomes public comments on these preliminary conclusions.

7. Camisea Natural Gas Pipeline

Public comments raised concerns that the FTA could intensify the negative environmental effects of foreign investment on the region's biodiversity. In this context, the Camisea Natural Gas Project, recently completed in the Peruvian Amazon with export facilities adjacent to a national marine reserve, was singled out for particular attention. This project will provide access to 11 trillion cubic feet of natural gas and more than 600 million barrels of liquefied petroleum gas (LPG) and includes a 700 kilometer pipeline that connects gas fields in the Camisea and Lower Urubamba watersheds and processing facilities at the Peruvian coast. The debate over the Camisea Project, including the decision to proceed using investment funds that include loans from the Inter-American Development Bank (IDB), preceded the decision to enter into negotiations for an FTA. Nevertheless, public comments on the environmental review of the FTA echoed environmental concerns that were raised from the inception of the Camisea Project. These include the effects on biodiversity from the construction and operation of the pipeline, as well as pollution of the Urubamba River. Construction and operation of a natural gas fractioning and liquefaction plant at the terminus of the pipeline in Paracas Bay, which borders a marine reserve, also is a source of concern. Supporters of the project have pointed out that the pipeline and related facilities will be a major source of revenue and energy for Peru, represent a significant step forward in the country's economic development and reduce air pollution in the Lima region.

Sensitive to the need for sustainable development, and taking into account concerns expressed about the project's impacts, the initial loan approval by the IDB (in September 2003) included a number of conditions designed to address social and environmental considerations. The

[13] Bolivia, currently an observer of the FTA negotiations, was not reviewed for certification as it does not export fishery products to the United States. Additional information is available at: http://www.state.gov/r/pa/prs/ps/2004/32529.htm.

conditions call for a number of actions to be taken by the pipeline company (TGP), the gas field developer and exporter (Pluspetrol), the Government of Peru and the IDB. Some of the conditions were to be fulfilled prior to financial closure; others are tied to loan disbursement. For its part, Peru has developed an action plan, based on a Letter of Commitment that it submitted to the IDB when the loan was approved. This plan contains milestones and completion dates for measures pertaining to both construction and operation phases of the project.

In July, 2004, the United States reviewed the status of various conditions related to loan closure. At that time, the United States communicated to the IDB that substantial progress had been made but that the United States had some concerns over whether all of the relevant conditions had been fully completed. The IDB maintained that all conditions had been met in order to proceed with closure, but agreed to address the concerns raised by the United States prior to loan disbursement. For example, the initial action plan is now outdated and, as a result, the United States is encouraging Peru to establish and publish a set of new and more realistic completion dates for actions required under the Government's Letter of Commitment. Other actions that the United States is encouraging various parties to take to strengthen the environmental and social aspects of the project include the following: (1) ensuring broad community participation and systematic and transparent monitoring procedures for the project; (2) completion of the development of the Camisea Fund, which will assist local economic, environmental and social development in areas affected by the project; (3) PlusPetrol must meet all discharge standards and continue to provide regular environmental performance reports; (4) restoration (re-vegetation) of the downstream portion of the project using appropriate native species; (5) PlusPetrol must submit a full baseline reconnaissance, further impact assessment and revised Environmental and Social Management Plan that includes biodiversity monitoring for the Project's direct area of impact, extending to Paracas Bay and the Paracas Reserve and islands; (6) Peru must implement policy and legal changes to ensure that all future hydrocarbon concessions with output through the Camisea pipeline conform to internationally recognized environmental and social safeguards and standards; and (7) PlusPetrol must develop a biodiversity monitoring plan for the construction, operation and closure phases of the upstream portion of Camisea project and TGP must develop a biodiversity monitoring program for the downstream component of the project. The Administration is currently reviewing the disbursement report submitted by the IDB for compliance with applicable conditions.

With respect to continued monitoring, the IDB is conducting consultations with Peruvian civil society to make the project monitoring system more independent, transparent and responsive to community needs. Although the IDB has closed on the loan and disbursed funds, the process for implementing conditions associated with the loan, including monitoring effects of the project, is ongoing. The United States is actively advising both the IDB as well as Peru and will continue to monitor progress of the Camisea project and related activities. For example, the condition that future hydrocarbon development conforms with international standards is relevant to the LNG export phase of the Camisea project, which is in the environmental assessment stage as of early 2005.

The FTA will not alter these arrangements and conditions and may provide opportunities to

reinforce or extend both monitoring and efforts to mitigate the effects of the Camisea investment. For example, commitments to effectively enforce environmental laws, proposed as an element of the Environment Chapter (see section II.D), will include laws that apply to the environmental effects of the pipeline's operation. In addition, the FTA is expected to provide opportunities for environmental cooperation that can be used to enhance and complement efforts already planned, including building capacity for effective public participation in environmental assessment and decision making. The Administration welcomes comments on this preliminary assessment.

8. Coastal Habitats and Migratory Marine Species

The Andean countries provide critical habitats for migratory marine species of importance to the United States. Coastal and marine ecosystems in this region are rich in biological diversity and living marine resources and are habitats for migratory shorebirds and sea turtles. Coastal wetlands are important as stopover and concentration sites for migratory shorebirds. Coastal areas and inshore waters of Colombia and Ecuador contain important nesting sites and foraging habitat for endangered species of sea turtles. Migration routes for some species of whales include waters off the Pacific Coast of Colombia and Ecuador. Many of these ecosystems are threatened by a variety of factors, including exploitation, development and pollution.

Peru, Colombia and Ecuador host important nesting, foraging and migrating populations of five species of sea turtles. All species of sea turtles are endangered and listed under the U.S. Endangered Species Act as well as CITES Appendix I (the most protective listing). The inshore and nearshore Pacific waters of Colombia, Ecuador, and Peru provide large areas of important foraging habitat for green turtles, while the nearshore and offshore waters provide important foraging habitat for olive ridleys *(Lepidochelys olivacea)*. Ecuador hosts one of the two most important nesting populations of green turtles in the Eastern Pacific, which is generally well protected in Galapagos National Park. The coastal waters of all three countries also are an important migration corridor for the severely depleted east Pacific leatherback *(Dermochelyscoriacea)* population. In addition, the Caribbean coast of Colombia hosts important nesting populations of leatherbacks, green turtles *(Chelonia mydas)*, hawksbills *(Eretmochelys imbricata)* and a remnant nesting population of loggerhead turtles *(Caretta caretta)*, and also provides expansive areas of foraging habitat for these three species.

Leatherback, olive ridleys, green and loggerhead turtles are all subject to accidental capture from long line, gill net and trawl fisheries. The National Marine Fisheries Service (NMFS) is working closely with the Andean countries to reduce sea turtle bycatch in these fisheries (see annex I.E). Illegal trade in hawksbill shell and its jewelry products is a concern in a number of countries (see section III.C.3 for additional information on CITES). Protection of nesting turtle populations along Colombia's Caribbean coast varies in quality. Although some community-based conservation programs are successful there are continuing threats due to poaching of eggs or nesting turtles. In addition, shrimp fishing can have severe effects on sea turtles, though these impacts can be greatly ameliorated through the use of turtle excluder devices (see section III.C.6 for additional information).

The effects of shrimp aquaculture on coastal habitats are a source of particular concern. Since

the 1980s, shrimp aquaculture has grown rapidly and has contributed to significant alteration of coastal landscapes and ecosystems. By 1991 there were more than one million hectares of shrimp ponds worldwide and it is estimated that the shrimp aquaculture has destroyed an equivalent area of critical coastal wetlands and mangroves. Although there are many factors associated with mangrove destruction, including population growth, urban and industrial development, agriculture and tourism, aquaculture has been a significant contributor.

In Ecuador, shrimp farming has been responsible for the destruction of some of the country's most extensive mangrove swamps and salt flats. Aquaculture also has contributed to destruction of large areas of shorebird habitat in northern Peru. Aggravating the problems generated by land conversion, few shrimp farms treat waste water before it is returned to coastal ecosystems. This contributes to the introduction of exotic species and potential transmission of diseases to the wild, both of which can have severe impacts on local food webs and migratory species. In addition, abandonment of shrimp ponds is common, and conversion of degraded pond areas to other uses is infrequent. Although there are no accurate estimates of pond dereliction, the extent of ponds left in idle condition is a significant problem in Ecuador and Peru.

The tariff provisions of the FTA are not expected to have direct, significant effects on products whose production methods currently affect coastal habits because U.S. tariffs on these products are already zero or very low. The longer-term economic and environmental effects of the FTA, for example through investment, are more difficult to identify and assess. Nevertheless, the FTA may provide a number of opportunities to address concerns related to coastal ecosystems, including mangrove habitats. One such opportunity is the International Wetlands Convention (Ramsar).

The United States and all of the Andean countries are Parties to Ramsar which has urged its Parties to suspend the promotion and creation of new facilities and expansion of unsustainable aquaculture activities harmful to coastal wetlands until environmental and social impact of such activities are determined and measures can be enacted to establish a sustainable system of aquaculture.[14] The FTA, through its environmental cooperation activities, provides a basis for enhancing implementation of this decision. In addition, the U.S. Fish and Wildlife Service provides assistance to the Andean countries through competitive grant programs to protect mangrove forests, wetlands and coastal habitat of migratory birds (see annex I.A) and the FTA provides opportunities to augment these efforts through environmental cooperation activities (see section IV).

FTA provisions proposed in the environment chapter, such as the commitment to effectively enforce environmental laws, also can provide the basis for strengthened enforcement of relevant environmental laws, better public understanding and more active public participation in the development of relevant laws and standards and enhanced compliance. The Administration welcomes public comments on these preliminary conclusions and the possible effects of the FTA.

[14] See Ramsar Resolution VII.21 (available at http://www.ramsar.org/key_res_vii.21e.htm).

9. Transboundary Air Pollution

The potential for transboundary transmission of air pollutants depends largely on the prevailing wind directions between the sources and receptors and the persistence of the pollutants in the environment. The Andean countries are located where easterly trade winds prevail and, as a consequence, any air pollution generated is most likely to affect the tropical South Pacific. However, some emission sources in Columbia may contribute to pollution in and above the Caribbean.

To date, most studies of transboundary air flows in the region have focused on the effects of biomass burning and have identified the South American outflow in the trade winds across the northern Andes as a major source of pollution in the lower troposphere over the eastern Pacific.[15] Given the location of the Andean countries, transboundary flows of most pollutants are unlikely to impact the United States. However, there are two broad exceptions to this general conclusion: pollutant flows affecting the tropical South Pacific (and the Caribbean) could have an impact on commercial fisheries that supply fish to the United States; and pollutants that persist in the environment for more than several months may migrate out of the tropics, northward to the United States. The pollutants of concern in both cases are persistent organic pollutants (POPs), including chlorinated pesticides such as DDT, industrial chemicals such as polychlorinated biphenyls (PCBs) and unintentionally produced chemicals such as dioxins and persistent bioaccumulative toxins, such as mercury.

POPs and PBTs are of particular concern 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 deposit 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 or Antarctic, 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.[16] Other studies have shown the Great Lakes to be a receptor of this discharge.[17]

Ecuador has ratified the Stockholm Convention on Persistent Organic Pollutants, a global treaty designed to eliminate or reduce the production, use and/or release of POPs into the environment.

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[15] Schultz, M.G., Bey, I., Numerical modeling of long-range pollution transport, *Intercontinental Transport of Air Pollution*, A. Stohl (ed.), The Handbook of Environmental Chemistry Vol. 4, Part G, p. 197-223, Berlin: Springer-Verlag, 2004

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

[17] 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.

Columbia and Peru have signed the treaty but have not yet ratified it. A separate program of action is being developed by the United Nations Environment Program to address sources and international flows of mercury. The active involvement of the Andean countries in these international efforts and their adherence to the commitments in the treaty and recommendations of the program will help to reduce the sources of these pollutants in this region and their impacts on the United States and elsewhere.

A number of industries in the Andean region produce air pollution, including POPs and PBTs.[18] However, the Administration has no forecasts of possible changes in production and transboundary transmission of these pollutants that might result from the FTA. The FTA 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 I). The Administration welcomes public comments on these issues and related activities.

10. Transboundary Water Pollution

Oceanographic transport patterns along the Pacific Coast of the United States are dominated by the southward flowing California Current. This pattern, combined with the divide of the Pacific Equatorial Countercurrent, makes it unlikely that oceanographic patterns would allow waste and debris from the Pacific coasts of Columbia, Peru or Ecuador to have an impact on the Pacific coast of the United States. However, the waters off Columbia's Caribbean coast generally flow north along the Central American Caribbean Coast and east to the Straits of Florida. Therefore, those oceanographic patterns have the potential to transport contaminants and debris to the Gulf Coast of the United States and the Florida Keys. There is uncertainty, however, concerning the type of contaminants that may be transported, their actual transport of contaminants in the respective currents and their ultimate fate and deposition.

Significant volumes of marine debris are deposited along the Texas coasts as a result of oceanographic currents in the Caribbean and Gulf of Mexico. Numerous studies have demonstrated that the vast majority of marine debris is a result of land-based activity that accumulates in debris fields being washed to sea. While there is significant transport of debris in surface currents, there is little empirical data to confirm the presence of contaminants and the patterns that determine their ultimate deposition, residence time and ecological effects.

Coral reefs in the southern area of the Caribbean are affected by marine pollution as well as other factors such as resource extraction, tourism, mining and coastal development. Some of the most serious threats to coral reefs effects are a result of sediment in runoff linked to logging, land clearing and agriculture. Nutrients from untreated sewage in high population centers also are a significant problem, as is oil pollution, including from ship traffic.

Although the FTA is not expected to have significant, direct effects through changes in tariffs, the FTA's effects through investment (for example, on agricultural production) are more difficult

[18] Examples include petrochemical production, copper smelting and agriculture (biomass burning and pesticide use).

to predict and assess. As described above (see, for example, section III.C.1) the long-term environmental effects of investment may be both positive and negative. Nevertheless, any increases in agricultural production in northern watersheds of Colombia may contribute to land clearing, pesticide and fertilizer use and may exacerbate existing pollutant stressors on local coastal ecosystems. Suspended sediment flows and the contaminants that adsorb/absorb to particulates can travel significant distances. While the sediment flows may not reach U.S. coastal waters, the United States could experience secondary effects connected with the alteration of spawning areas that feed marine populations that spend significant life stages in the Gulf of Mexico or other U.S. waters.

The United States addresses marine pollution concerns in existing cooperative activities (see annex I). The FTA provides opportunities to enhance these activities. The Administration welcomes pubic comments on these efforts and opportunities.

D. Potential Regulatory Impacts

Consistent with EO 13141 and its Guidelines, this review includes consideration of the extent to which the Andean FTA might affect U.S. environmental laws, regulations, policies and/or international commitments. Andean FTA 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 Andean FTA negotiations proceed, negotiators will continue to focus on this important objective.

Within the realm of FTA obligations, those related to services, SPS measures and 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 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 http://www.ustr.gov/Trade_Agreements/Bilateral/Section_Index.html), the Administration does not expect that the Andean FTA 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/Trade_Sectors/Environment/Section_Index.html.

Investment

FTA investment provisions, in particular, were a matter of intense debate during Congress' consideration of the Trade Act. The central question was the appropriate balance that should be struck between the rights of U.S. investors abroad and preserving the ability of the federal government and state and local governments to regulate with respect to health, safety and the environment. The Trade Act strikes this balance by establishing negotiating objectives with respect to both substantive investment provisions of particular concern (notably provisions on expropriation and "fair and equitable treatment") and procedures for resolving disputes between Parties and investors (the investor-State dispute settlement mechanism).

Following TPA guidance, and after consultations with interested stakeholders, the Administration has included a number of substantive clarifications and procedural innovations in Investment Chapters of recent FTAs, including the Chile, Singapore, Morocco and Central American FTAs. A fuller discussion of these and other relevant investment provisions and their potential regulatory impact is provided in the final environmental review of the Morocco FTA.[19]

The Administration is seeking similar provisions in the Andean FTA, including: clarifications of the expropriation and minimum standard of treatment ("fair and equitable treatment") provisions to address regulatory concerns; increased transparency in the investor-State dispute settlement mechanism; provisions to promote the elimination and deterrence of frivolous claims; and provisions to promote the consistency and coherence of arbitral decisions. Based on the previous analysis, and assuming that the Andean FTA contains provisions similar to the previous FTAs, we do not expect that the FTA will result in a significant potential for negative impacts on U.S. environmental measures. We invite comments on this preliminary finding.

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 three Andean countries already work together on a bilateral basis to address environmental issues through a number of ongoing projects. The United States also works with these countries through other mechanisms such as the Organization of American States, International Tropical Timber Organization, Inter-American Development Bank, Summit

[19] See: http://www.ustr.gov/Trade_Sectors/Environment/Environmental_Reviews/Section_Index.html.

of the Americas, the UN Environment Program and the World Bank. U.S. agencies have several regional and bilateral programs involving the three countries, principally under the auspices of the Agency for International Development, the Department of the Interior, the Department of State and the Environmental Protection Agency. Annex I summarizes recent environmental cooperation activities supported by federal agencies.

The United States and the Andean countries expect to enter into an environmental cooperation agreement (ECA) similar to those negotiated in parallel with the FTAs with Chile and the Central American countries. A framework for cooperative activities between the United States, Colombia, Ecuador and Peru is expected to contribute to national and regional efforts to protect, improve and conserve the environment. Equally important, it will provide additional opportunities for the exchange of ideas and cooperation among the Andean countries, reinforcing existing efforts. Public participation in the cooperative work, including public-private partnerships, is expected to be an important element of this framework.

ANNEX I—Selected Recent Environmental Cooperation Activities with the Andean Countries

This annex provides examples of recent environmental cooperation activities between agencies of the U.S. Government and partners in Colombia, Ecuador and Peru. Although 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 the Interior

The U.S. Department of the Interior provides financial and technical support for a number of projects in the Andean countries, with broad objectives that include assisting in establishing and managing parks and protected areas, species conservation, research, education and natural resource management. Examples of these projects include:

In Colombia:

- Strategy for the exchange of experiences in conservation and wildlife management in Latin America
- Mountain tapir population and habitat viability assessment workshop
- Conservation in the Coffee-producing Zone of Sierra Nevada de Santa Marta
- La Conejera Wetland Conservation
- Migratory Bird Conservation in the Laguna de Fuquene
- Providing Safe Haven: Habitat Conservation in the Orinoco River basin
- Silvopastoral System as Habitats for Wintering Passerines
- Curation of the North American Vertebrate Collections

In Ecuador:

- Restoration of the Manabi mangrove for the benefit of the ancestral users of the ecosystem
- Protection of Neotropical Migrants in Lowland Chaco Forest
- Wild Bird Project: Sharing the Beauty of Neotropical Birds

In Peru:

- Tikay Wasi environmental education program for costal areas of Peru
- Freshwater Wetland Habitat Conservation, Pacific Coastal Lowlands
- Reforestation in the Wakarpay Wetland
- Behavior and ecology of birds with emphasis on tropical areas (much of this study focuses on the wintering grounds of the Alder flycatcher in Peru)
- Floristic surveys and effects of air pollutants on plants in National Parks (this larger study includes collection of samples from Peru and collaboration with Peruvian scientists)

– Floristic surveys and effects of air pollutants on plants in National Parks (this larger study includes collection of samples from Peru and collaboration with Peruvian scientists)

B. U.S. Agency for International Development

1. USAID Bilateral Environmental Activities in Colombia

In Colombia, USAID's bilateral programs support activities designed to encourage small farmers to embrace the legal economy in regions primarily influenced by the cultivation of illicit crops. In this context, the bilateral environment program promotes the sustainable management of natural resources through work with indigenous groups, the Colombian National Parks Unit and the forest sector. USAID trains indigenous groups to manage Indi Wasi National Park, which is located on ancestral indigenous land, and encourages them to return to traditional, environmentally friendly means of producing medicinal plants and forest products (timber and non-timber). USAID assistance to the Colombian National Parks Unit (CNPU) supports the protection of natural resources and the improvement of visitor services and the overall management of the Colombian Park System.

USAID forestry projects: encourage the sustainable management of primary and secondary forests; work with community groups; conduct research; build partnerships with the public and private sectors; and assist the private commercial forestry sector to improve efficiency through better technology and knowledge of the markets for their products. One of these projects, the Colombia Forestry Development Program, promotes Colombia's potential in forest products by addressing four main thematic areas: 1) Forest Policy Improvement; 2) Support of Plan Colombia's Forestry Initiative; 3) Improved Production and Income Generation in the Forestry Sector; and 4) the creation of a Forestry Development Fund to provide technical assistance in the development of work plans, marketing and feasibility studies. In addition, USAID will participate on the board of the new conservation fund which was created through debt treatment under the Tropical Forest Conservation Act (TFCA). The fund will yield approximately $10 million over 12 years for the conservation of Colombia's tropical forest.

2. USAID Bilateral Environmental Activities in Ecuador

USAID Ecuador's bilateral environment program is aimed at strengthening Ecuador's capacity to protect its biodiversity by focusing efforts on protected areas, their buffer zones and indigenous territories, the most critical areas for conserving biodiversity. This includes providing indigenous populations with technical assistance in natural resources management, territorial consolidation, conflict management and income generation. In the Galapagos Islands, USAID encourages the development of ecotourism as an alternative income source, promotes public participation in conservation efforts and supports the Galapagos National Park Service in its efforts to patrol and protect its Marine Reserve from illegal fishing and drug trafficking. In addition, USAID works closely with Ecuador's Ministry of Environment and non-governmental organizations to implement effective policies and laws that prevent the loss of grasslands and forests within Ecuador's Condor BioReserve, which provides 70 percent of the capital's water

supply. USAID's support of improved resources management and conservation has helped Ecuador achieve sustainable development and higher environmental standards. Through the preservation of natural resources such as carbon-storing forests, USAID has assisted Ecuador in addressing climate change while simultaneously protecting vulnerable ecosystems.

In recent years, USAID programs have contributed to the management and conservation of 2.2 million hectares of land, the strengthening of local NGOs active in conservation and the passage of key laws such as the Special Law for the Galapagos. USAID began a new strategy in 2003 which builds upon these past accomplishments through increased focus on protected areas and indigenous territories, institutional stability, good local governance and building local capacity for improved natural resource management. In addition, a new public-private alliance activity under the Global Development Alliance is testing innovations in wood processing and marketing, thereby reversing the loss of forests by providing sustainable, alternative, high-value wood products.

3. USAID Bilateral Environmental Activities in Peru

USAID Peru's bilateral environment program focuses on: improving forest management and combatting illegal logging; conserving biological diversity and promoting economic alternatives to transform land-use dynamics in the Central Huallaga Valley of Peru; assisting Peruvian industry to become more efficient and competitive; and supporting efforts to mitigate impacts in the Paracas Bay buffer zone and Reserve associated with the construction of a processing plant and loading platform for the Camisea Natural Gas project.

USAID's forestry program (named CEDEFOR) supports the modernization of Peru's forest sector, primarily by increasing sustainable forest management, promoting private investment in the sector, encouraging improved opportunities for licit economic activities and job creation, and reducing illegal logging. USAID also supports efforts by the National Natural Resources Institute (INRENA) and the National Agrarian University to implement the mahogany "uplisting" under CITES. In the Cordillera Azul National Park, USAID is supporting activities to protect natural systems and species and to increase the local awareness regarding the biological and economic importance of the park by developing compatible use programs and involving key stakeholders in park conservation and management. USAID is also expanding a program to strengthen the System of Natural Protected Areas (SINANPE) by training park professionals in financing and management systems for protected areas. In addition, USAID participates on the board of the TFCA debt-for-nature fund. The fund will provide approximately $10 million over 12 years for the conservation of Peru's tropical forest.

In addition to promoting sustainable forest management and protecting critical biodiversity areas, USAID also addresses urban pollution through a program aimed at reducing industrial contamination while increasing industry efficiency and competitiveness. Interventions include technical assistance, training, institution building, technology transfer and a loan guarantee program to facilitate access to credit by medium size industrial plants, which require financing to improve production processes and decrease pollution. USAID's climate change program is helping Peru confront threats to biodiversity and maintain carbon sinks in its vast tropical

forests. Policy reforms and improved management of protected areas are important strategies for meeting these challenges. Climate change activities also include supporting the use of clean technologies to reduce industrial and urban pollution.

Finally, USAID is providing support to Peru and private sector stakeholders to create appropriate conditions for the sustainable development of the Paracas Bay and Reserve, including cleaning up environmental contamination in the Paracas Bay and reducing pollution produced by local fishmeal plants; developing mid- and long-term planning, environmental monitoring, community participation, information and awareness campaigns; and establishing regional and local environmental management systems.

4. Parks in Peril

Parks in Peril is USAID's flagship biodiversity conservation program in South America. Implemented in Colombia, Ecuador and Peru by The Nature Conservancy (TNC), the Parks in Peril program builds on the capacity of local organizations and provides technical assistance to indigenous and other local communities. Components of the program in the Andean region include: conservation planning for freshwater biodiversity; conservation strategies and policies for private lands; mitigation of climate change through carbon sequestration; and increasing management capacity in the Pacaya-Samiria National Reserve in Peru; three protected areas in the Central Selva region of Peru; and the Condor Bioreserve in Ecuador by improving personnel, financial management, operations and strategic planning skills.

5. Sustainable Forest Products Global Alliance

The Sustainable Forest Products Global Alliance (SFPGA) is a public/private partnership that catalyzes businesses, public agencies and non-governmental organizations to encourage the responsible management of forest resources, reduce illegal logging and improve the well-being of local communities. USAID, World Wildlife Fund and Metafore are achieving these goals by working with organizations like The Home Depot, Forest Trends and USDA Forest Service International Programs to connect producers of responsible forest products in the developing world to buyers in the developed world. In the Andean region, the SFPGA has worked to: support the development of forest products producers groups; organize trade fairs designed to link legitimate producers of legal wood products with buyers; and collect and disseminate information on "lesser known" timber species, including preparing a proposal for standardizing common and commercial names for selected lesser known timber species and developing a new classification system for such species.

C. Department of State

As part of its activities related to international conservation, the Department of State provides voluntary financial support for project and policy activities of the ITTO. Colombia, Peru and Ecuador are Producer members of the ITTO. At the 36th and 37th sessions of the International Tropical Timber Council (July 2004 and December 2004) the United States provided voluntary contributions to fund project work in each of the Andean countries, as well as funds for policy

activities with regional benefits.

Projects approved in July, 2004 with financial contributions from the United States included:

Colombia	Economic modeling and technical training
Peru	Mahogany inventory
Ecuador	Genetic resources conservation in natural forests

The United States also provided additional support (supplementing funding provided at an earlier Council session) to enable ITTO to publish and disseminate the results of a regional workshop (Peru, Bolivia and Brazil) on implementation of the CITES Appendix II listing for mahogany, and funds for policy activities to address illegal logging.

Projects approved in December, 2004 and funded with financial contributions from the United States included:

Peru	Implementation of a national forest strategy
Ecuador	Sustainable management of secondary forest

The United States also provided funding to implement a Council decision to enhance cooperation between ITTO and CITES, with a specific focus on tropical timber species listed on Appendix II of CITES. Among other objectives, this decision will support additional work to build capacity in the Andean region to implement CITES.

D. Environmental Protection Agency

EPA's cooperation with Andean countries focuses on building capacity to monitor and manage air quality, provide energy alternatives that promote a cleaner environment and regulatory management of pesticides.

A significant component of the work on monitoring and managing air quality is developing and disseminating the International Vehicle Emissions Model (IVEM), an analytical tool designed to estimate emissions from motor vehicles in developing countries.[20] This model includes information on local air pollutants, greenhouse gas emissions and toxic pollutants and helps cities and regions to:

- Focus control strategies and transportation planning on those that are most effective;
- Predict how different strategies will affect local emissions; and
- Measure progress in reducing emissions over time.

EPA, with financial support from the World Bank and USAID, transferred and assisted in the application of IVEM in the region. Vehicle activity studies, carried out in cooperation with local

[20] Cooperative work of the University of California at Riverside, Global Sustainable Systems Research and the International Sustainable Systems Research Center.

universities and air quality authorities, have been completed for Lima, Peru and Bogota, Colombia. Follow up work with Peru will include a seminar to disseminate results to a broader audience.

In November of 2004, Colombia and the United States were among the 14 countries that launched the Methane to Markets Partnership. This initiative is designed to capture and profitably use, as a clean energy source, methane (the main component of natural gas) that is currently wasted from underground mines, landfills and oil and gas systems. The Partnership's goal is to reduce global methane emissions in a manner that enhances economic growth, promotes energy security and improves the environment. Under this initiative, Partner countries will collaborate with each other and interested organizations such as private industry, development banks, and other governmental and nongovernmental entities to encourage cost-effective investment in projects that reduce methane emissions. EPA is the lead U.S. agency for this initiative and collaborates with USAID, Department of Energy, Department of State, Department of Agriculture and the Trade Development Agency. Additional information on this initiative is available at www.methanetomarkets.org or www.epa.gov/methanetomarkets.

In the area of pesticide regulatory management, EPA provides weekly updates to pesticide regulators in Peru, Ecuador, Colombia, and Bolivia. The updates contain current information on EPA's pesticide registrations, the results of pesticide risk assessments, the establishment of maximum residue limits or tolerances for the use of pesticides on food crops, and risk mitigation actions or cancellations for pesticide products.

E. Department of Commerce, National Marine Fisheries Service (NMFS)

In cooperation with the IATTC, the NMFS Southeast Fisheries Science Center staff conducted longline mitigation training and workshops in Peru (June 2004). In October 2004, NMFS followed up on a training workshop held in 2003 (in cooperation with Peru) by working with Peruvian researchers to initiate experiments in circle hook implementation and in the artisanal mahi and shark fisheries.

In collaboration with the IATTC, the Western Pacific Regional Fishery Management Council and WWF, NMFS provided hooks, dehookers and technical assistance to Ecuador to support testing of non-offset circle hooks in the mahi mahi fishery and offset circle hooks in the tuna/shark fisheries. Similar work is planned for Peru.

An MOU has been developed between the Southwest Fisheries Science Center and IMARPE (Peru) to collaborate on sea turtle/fisheries research.

ANNEX II—Data Tables

Table 1—Population, economic and trade data for Andean Countries and the United States in 2003

	Population *Millions*	Gross National Income			Exports of goods and services	
		Total, nominal *Billion US$*	Per capita *US$/capita*		Total *Billion US$*	As a share of GDP *Percent*
			Nominal	PPP[a]		
Colombia	44.4	77.6	1,748	6,300	12.9	16.6
Ecuador	13.0	27.2	2,092	3,300	4.9	18.0
Peru	27.1	60.6	2,236	5,100	10.7	17.7
United States	291.0	11,004.0	37,394	37,800	1,020.5	9.3

[a] Purchasing Power Parity.

Sources: World Bank, U.S. Department of Commerce, U.S. Central Intelligence Agency.
Data available at: http://www.worldbank.org/data and http://www.ita.doc.gov/td/industry/otea/ and http://www.cia.gov/cia/publications/factbook/

Table 2—Selected development indicators for Andean Countries and the United States in 2002

	Population density *People per square km*	Urban Population *Percent*	Access to		Under-5 mortality *Number per 1,000*	Life expectancy at birth *Years*
			Improved water source[a] *Percent*	Improved sanitation facilities[a] *Percent*		
Colombia	42.1	76	91	86	23	72
Ecuador	46.3	64	85	86	29	70
Peru	20.9	73	80	71	39	70
United States	31.5	78	100	100	8	77

[a] Average for urban and rural population; data for the year 2000.

Source: World Bank, World Development Indicators, 2004.
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 Andean Countries and the United States for 2002

	Land area *Million square kilometers*	Land use *Percent total land*		Annual change in forest cover, 1990-2000 *Percent*	Share of land in protected status[a] *Percent*
		Forest	Agriculture		
Colombia	1.0	48	43	-0.4	10
Ecuador	.3	38	29	-1.2	18
Peru	1.3	51	24	-0.4	6
United States	9.2	25	46	.2	26

[a] Nationally protected areas.

Sources: United Nations Food and Agriculture Organization; World Bank 2004 World Development Indicators.
Data available at: http://www.fao.org and http://www.worldbank.org/data.

Table 4—Recent biodiversity indicators for Andean Countries and the United States

	Number of protected areas *Number*	Area of biosphere reserves *Thousand hectares*	Species threatened *Number (Percent known species)*		
			Mammals	Birds	Plants[a]
Colombia	101	3,338	41 (11)	78 (11)	51,220 (0.4)
Ecuador	27	17,375	33 (11)	62 (10)	19,362 (1.0)
Peru	36	3,268	49 (11)	76 (11)	17,144 (1.6)
United States	3,481	31,570	37 (8.6)	55 (8.5)	19,473 (..)

[a] Flowering plants only.

Sources: United Nations Environment Program; World Bank; and World Resources Institute Earth Trends Country Profiles. Data available at: www.worldbank.org and www.earthtrends.wri.org.

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 Andean Countries, 2001-2003
Billion dollars

Trading partner	United States exports			United States imports		
	2001	2002	2003	2001	2002	2003
Colombia	3.6	3.6	3.8	5.7	5.6	6.4
Ecuador	1.4	1.6	1.4	2.0	2.1	2.7
Peru	1.6	1.6	1.7	1.8	1.9	2.4
Subtotal	6.6	6.8	6.9	9.5	9.6	11.5
All trading partners	731.0	693.3	723.7	1,142.0	1,163.5	1,259.4
Andean country share *(percent)*	0.9	1.0	1.0	0.8	0.8	0.9

Source: U.S. Department of Commerce
Data available at: http://www.ita.doc.gov/td/industry/otea/, http://www.ustr.gov/reports/2003atpa.pdf and http://dataweb.usitc.gov

ANNEX III—Organizations Proving Comments

Received in response to 69 *Fed. Reg*. 19261

Natural Resources Defense Council, Center for International Environmental Law, Defenders of Wildlife, Friends of the Earth, Oxfam (joint submission)
American Sugar Alliance