



Final Environmental Review of the U.S.-Chile Free Trade Agreement

Pursuant to Section 2102(c)(4) of the Trade Act of 2002 and Executive Orders 13277 (2002) and 13141 (1999), the Office of the U.S. Trade Representative provides the following Final Environmental Review of the U.S.-Chile Free Trade Agreement.

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EXECUTIVE SUMMARY

Pursuant to authority delegated by the President in Executive Order 13277 (November 21, 2002), the United States Trade Representative (USTR) submits this Final Environmental Review of the U.S.-Chile Free Trade Agreement (FTA) as required under section 2102(c)(4) of the Trade Act of 2002 (Trade Act).¹

Context

The Administration expects both political and economic gains to result from a stronger trading relationship with Chile. A Free Trade Agreement with Chile has the potential to provide benefits to U.S. and Chilean exporters through tariff reductions and by clearly establishing and/or simplifying the rules and procedures that U.S. and Chilean importers and exporters must follow. A U.S.-Chile FTA is also intended to demonstrate the United States' commitment to free trade throughout the hemisphere, and set the stage for further trade liberalization in the region. The Administration and the Government of Chile (GOC) announced their intent to enter into negotiations for a free trade agreement in November 2000, with the goal of developing a comprehensive, state-of-the-art agreement. Negotiations were launched in December 2000 and completed in December 2002. The Trade Act was enacted in August 2002, during the course of the negotiations.

Background

The environmental review process is designed to ensure that, through the consistent application of principles and procedures, environmental considerations are integrated into the development of U.S. trade negotiating objectives and positions. The process is intended to provide timely information that will enable trade policymakers and negotiators to understand the environmental implications of possible courses of action.

A Draft Environmental Review, prepared and released during the course of negotiations, provides policymakers and negotiators with information concerning potentially significant

¹ The USTR conducted this review consistent with Executive Order 13141, *Environmental Review of Trade Agreements*, 64 Fed. Reg. 63,169, Nov. 18, 1999 (Order) and its implementing guidelines, 65 Fed. Reg. 79,442, Dec. 19, 2000 (Guidelines). These are available at www.ustr.gov. A number of agencies on the Trade Policy Staff Committee (TPSC), the Council on Environmental Quality (CEQ), the Departments of Agriculture, Commerce (including the National Oceanic and Atmospheric Administration), Interior, Justice, Treasury, and State, the U.S. Environmental Protection Agency (EPA), and the U.S. Agency for International Development (USAID), have made significant contributions to the review. The TPSC, established under section 242 of the Trade Expansion Act of 1962, as amended (19 U.S.C. § 1872), is the principal staff-level mechanism for interagency decision making on U.S. trade policy. The current participants in the TPSC process for purposes of environmental reviews include agencies with relevant environmental, economic, and foreign policy expertise. See Guidelines, Appendix A (65 Fed. Reg. at 79,448).

environmental issues and seeks public comment to inform the development of negotiating positions. A Final Environmental Review, released after the trade agreement is concluded, describes the environmental review process and the Administration's conclusions regarding the agreement's potential environmental impacts.

The Administration released the Draft Environmental Review of the U.S.-Chile FTA (available at www.ustr.gov/environment/environmental.shtml) on November 7, 2001 (66 Fed. Reg. 56,366), and requested public comments to inform the development of the Administration's negotiating positions. The Administration delayed tabling negotiating proposals with Chile in several areas, including the Environment Chapter and certain aspects of the Investment Chapter, until after passage of the Trade Act. The Administration took both Congressional guidance and public views into account in developing its negotiating proposals, particularly those related to investment, environment, and environment-related aspects of dispute settlement, which were presented to Chile in late 2002.

This Final Environmental Review summarizes the Administration's conclusions regarding potential environmental impacts of the FTA. The review draws upon environmental and economic expertise within the Administration, information provided by the public in response to notices published in the *Federal Register* and at a public hearing, the advice of relevant advisory committees, including the Trade and Environment Policy Advisory Committee (TEPAC), and relevant published economic analyses. Consistent with the Order and Guidelines, the focus of the review is on potential impacts in the United States. However, the Administration also considered global and transboundary impacts in determining the scope of the review.

Findings

1. In this Final Environmental Review, the Administration has concluded that changes in the pattern and magnitude of trade flows attributable to the FTA will not have any significant environmental impacts in the United States. While it is conceivable that there may be instances in which environmental effects are concentrated regionally or by sector in the United States, we could not identify any such instances.

2. While environmental impacts of predicted economic changes attributable to the FTA in the United States are expected to be minimal, the Administration identified several environmental issues that warranted further consideration. In analyzing these issues, the Administration relied on public comments, advisory committee advice, expertise within federal agencies, and information provided by our Chilean counterparts. Chile's economy is heavily dependent on exports from natural resource sectors, including mining and metals processing, forestry products, fisheries, and agriculture. Production changes in these sectors can also affect the production and use of pesticides and hazardous waste. Although we concluded that the economic and environmental effects of the FTA on these sectors is likely to be minimal, our analysis of these issues helped us to identify priorities for the environmental cooperation elements of the FTA.

3. The Administration considered the potential of the FTA to promote the use of environmental technologies (goods and services). We concluded that the increase in trade in this sector attributable to the FTA would have a negligible environmental impact within the United States, but may have a small to moderate positive environmental impact in Chile and the surrounding Latin American region.

4. The Administration also considered whether provisions of the FTA could affect, positively or negatively, the ability of U.S. federal, state, local, or tribal governments to enact, enforce, or maintain environmental laws and regulations. Our analysis focused in particular on the provisions of the Environment Chapter (and related dispute settlement provisions) and the Investment Chapter.

With respect to the Environment Chapter, the Administration concluded that the environment provisions of the FTA do not alter U.S. regulatory obligations, and that these provisions may have positive implications for the enforcement of environmental laws and environmental protection in the United States and Chile. The FTA's environment provisions include core commitments by each Party concerning effective enforcement of its environmental laws, establishing and maintaining high levels of environmental protection, and not weakening environmental laws to encourage trade or attract investment. The FTA establishes an Environment Affairs Council (Council) to implement the Environment Chapter of the FTA, and to serve as a high-level forum to discuss environmental issues and concerns. The FTA also ensures transparency in the implementation of the Agreement, opportunities for public input into Council meetings, and environmental cooperation between the Parties. If either Party fails to effectively enforce its environmental laws, through a sustained or recurring course of action or inaction, in a manner affecting trade between the Parties, the other Party can seek enforcement through innovative dispute settlement procedures, including the use of monetary assessments backed by the suspension of trade benefits.

5. The Administration examined the provisions of the Investment Chapter in light of extensive public and private sector interest in the implications of these provisions for environmental regulation. We concluded that the FTA would not significantly affect the ability of U.S. governmental entities to regulate in order to meet domestic health, safety, and environmental policy objectives. The FTA's investment provisions incorporate a number of changes from previous investment agreements, consistent with relevant provisions of the Trade Act. These provisions provide greater clarity to the substantive investment obligations, significantly increase the transparency of the procedures for arbitrating investor claims, and help ensure that arbitral tribunals will interpret the investment provisions in accordance with the Parties' intent.

6. Finally, the United States and Chile have agreed to undertake eight initial environmental cooperation projects that address priorities identified by the Parties during the course of the negotiations and the conduct of our respective environmental reviews. The Parties also agreed to negotiate an Environmental Cooperation Agreement to guide future cooperative efforts. These

initiatives build upon a long history of environmental cooperation between the United States and Chile that spans many issues and fora.

I. LEGAL AND POLICY FRAMEWORK

A. The Trade Act of 2002

Congress passed the Trade Act during the negotiation of the U.S.-Chile FTA. The Trade Act provides guidance to U.S. negotiators on many aspects of bilateral and multilateral trade agreements, including the environment. The Trade Act outlines three sets of requirements: overall trade negotiating objectives, principal trade negotiating objectives, and promotion of certain priorities. The Trade Act also includes a number of requirements for reporting to Congress. Requirements related to the environment include:

Overall Trade Negotiating Objectives:

- to ensure 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));
- to seek 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)).

Principal Trade Negotiating Objectives:

- to ensure that a party to a trade agreement 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 (Section 2102(b)(11)(A)-(B));
- to strengthen the capacity of U.S. trading partners to protect the environment through the promotion of sustainable development (Section 2102(b)(11)(D));
- to reduce or eliminate government practices or policies that unduly threaten sustainable development (Section 2102(b)(11)(E));
- to seek market access, through the elimination of tariffs and nontariff barriers, for U.S. environmental technologies, goods, and services (Section 2102(b)(11)(F));

- to ensure 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)).

Promotion of Certain Priorities and Associated Reporting Requirements:

- 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, and report 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));
- conduct environmental reviews of future trade and investment agreements consistent with Executive Order 13141 and its relevant guidelines, and report to the Committees on the results of such reviews (Section 2102(c)(4));
- take into account other legitimate U.S. domestic objectives, including but not limited to the protection of legitimate health or safety, national security, and consumer interests and related law and regulations (Section 2102(c)(6));
- continue 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)).

As noted below, the negotiating objectives related to investment and other issues may also be relevant to U.S. environmental laws and regulations.

B. The Environmental Review Process

Executive Order 13141, *Environmental Review of Trade Agreements* (64 Fed. Reg. 63,169, Nov. 18,1999) and implementing Guidelines (65 Fed. Reg. 79,442, Dec. 19, 2000) require written environmental reviews of certain major trade agreements, such as the U.S.-Chile FTA. The Trade Act provides that the President shall conduct environmental reviews consistent with the Order and relevant guidelines, and report on such reviews to the Committee on Ways and Means of the House of Representatives and the Committee on Finance of the Senate.

The purpose of reviews is to ensure that policymakers are informed about reasonably foreseeable environmental impacts of trade agreements (both positive and negative), to identify complementarities between trade and environmental objectives, and to help shape appropriate responses if environmental impacts are identified. 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 jointly oversee implementation of the Executive Order and Guidelines. USTR, through the Trade Policy Staff Committee, is responsible for conducting the individual reviews.

The Order and Guidelines seek to provide significant opportunities for public involvement in the development of trade agreements, including early consultations with stakeholders and 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. Except in unusual cases, the public is given an opportunity to comment on a draft written review prepared while the negotiations are pending. The draft environmental review of the U.S.-Chile FTA was released for public comment on November 7, 2001. This final review was prepared after the U.S.-Chile FTA negotiations concluded on December 10, 2002.

As the Guidelines recognize, the approach adopted in individual reviews will likely vary from case to case, given the wide variety of trade agreements and negotiating timetables. Generally, reviews address two types of questions: (1) the extent to which positive and negative environmental impacts may flow from economic changes estimated to result from the prospective agreement; and (2) 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). The primary focus of reviews is on effects in the United States, although global and transboundary effects may be considered as appropriate and prudent.

Environmental reviews are more than a written document: they are a process. The overall goals of the review – integrating environmental considerations into the development of U.S. trade negotiating objectives and positions – can be achieved by a variety of formal and informal means, taking into account the dynamic nature of trade negotiations and the sensitivity of interactions with other countries. In that context, written documents memorialize the review process, explain the rationale for conclusions reached, and inform the negotiating process. (*See Guidelines, Sections III & VII, 65 Fed. Reg. at 79,444-45, 79,447, Dec. 19, 2000.*)

Where significant regulatory and/or economically driven impacts are identified in the review, information concerning those impacts is provided to negotiators and decisionmakers throughout the government, and the review analyzes options to mitigate negative impacts and create or enhance positive impacts. Because the review is closely integrated into the overall trade policy development process, relevant options involving negotiating positions are typically addressed in the interagency groups developing positions on the topics in question. Options in other policy areas (*e.g.*, environmental policies) are addressed through the appropriate policy process.

II. OVERVIEW OF THE U.S.-CHILE FTA

A. Relevant Provisions of the FTA

Through the FTA, the United States and Chile intend to liberalize trade in a number of areas, while preserving each country's ability to set and maintain its chosen levels of protection for health, safety and the environment. The FTA contains 24 chapters, in addition to the preamble: initial provisions, general definitions, national treatment and market access for goods, rules of origin and origin procedures, customs administration, sanitary and phytosanitary measures, technical barriers to trade, trade remedies, government procurement, investment, cross-border trade in services, financial services, telecommunications, temporary entry, electronic commerce, competition policy, designated monopolies and state enterprises, intellectual property rights, labor, environment, transparency, administration of the agreement, dispute settlement, exceptions, and final provisions. A summary of each chapter as well as the full text of the U.S.-Chile FTA can be found on USTR's website at <http://www.ustr.gov>. The Administration identified twelve sections of the Agreement as having particular import for this environmental review. These sections are described below.

Preamble

The preamble to the Agreement expresses the Parties' common goals regarding trade and the implementation of the Agreement. The U.S.-Chile FTA preamble recognizes environmental issues, stating that the Parties are, "resolved to: Implement this Agreement in a manner consistent with environmental protection and conservation; Conserve, protect, and improve the environment, including through managing natural resources in their respective territories and through multilateral environmental agreements to which they are both parties; Preserve their flexibility to safeguard the public welfare; and Promote sustainable development."

Environment

The Environment Chapter of the U.S.-Chile FTA contains several core obligations under which each Party agrees to provide for high levels of environmental protection and strive to improve those levels; not to fail to effectively enforce its environmental laws, through a sustained or recurring course of action or inaction, in a manner affecting trade; and not to weaken or reduce the protections afforded in such laws to attract trade or investment. The Chapter also creates an Environment Affairs Council to discuss matters that may arise regarding the Chapter. In accordance with the Trade Act, the effective enforcement obligation is enforceable through the FTA's State-to-State dispute settlement provisions.

Environmental cooperation is another key component of the Chapter: eight initial cooperative projects are established, and the Parties agree to negotiate a separate agreement to guide future cooperative efforts.

Investment

The FTA's Investment Chapter is a comprehensive set of well-established standards found in investment treaties, including non-discrimination provisions obligating each Party to treat investors of the other Party and their investments no less favorably than its own investors and their investments in like circumstances (national treatment) and no less favorably than the investors of other countries and their investments in like circumstances (most-favored-nation treatment). Likewise, the Chapter contains disciplines on imposing specified "performance requirements" on investments of investors as a condition of the investment or during the life of the investment (with appropriate exceptions for non-discriminatory health, safety, and environmental requirements).

The Chapter also incorporates a number of clarifications of traditional investment provisions in accordance with investment objectives in the Trade Act. In particular, the provisions on minimum standard of treatment and expropriation, together with supplementary annexes, provide more detail and context to the Parties' understanding of these obligations to ensure that they are properly interpreted and applied. The FTA's provisions on investor-State dispute settlement procedures (a mechanism allowing an investor to pursue a claim in arbitration against a host government for alleged breach of its investment obligations) include a significant number of innovations to improve the transparency of arbitral proceedings and to help ensure that arbitral panels properly interpret the FTA's investment provisions.

Government Procurement

The FTA's Procurement Chapter is modeled on current U.S. commitments in the WTO Government Procurement Agreement, which ensures non-discrimination, transparency, predictability, and accountability in the government procurement process. The FTA provides appropriate reciprocal, competitive government procurement opportunities to U.S. suppliers in Chile's government procurement market. The FTA clarifies that the obligations in the Chapter related to technical specifications are consistent with the ability of the Parties to prepare, adopt, or apply technical specifications that promote the conservation of natural resources in government procurement covered by the Chapter. The Chapter also contains exceptions for non-discriminatory measures necessary to protect human, animal or plant life or health, and incorporates the Parties' understanding that the exception includes necessary environmental measures.

Sanitary and Phytosanitary Measures (SPS)

The Parties affirm their rights and obligations arising under the WTO SPS Agreement, which provides disciplines on government measures aimed at protecting human, animal, or plant life or health from risks arising from the spread of pests and diseases, or from additives or contaminants found in food, beverages, or feedstuffs. The SPS Chapter also establishes a bilateral SPS committee to discuss SPS issues between the Parties and technical assistance, and to consult on issues arising in other international SPS-related fora.

Technical Barriers to Trade (TBT)

The Parties affirm their rights and obligations arising under the WTO TBT Agreement, and have created a committee to exchange information on technical regulations, standards, and conformity assessment procedures. The Parties have also agreed to transparency measures in addition to those required in the WTO TBT Agreement.

Market Access for Goods

The FTA provides for the elimination or reduction of tariffs on goods. Duties will be immediately reduced to zero on more than 100 environmental goods and technologies.

Dispute Settlement Procedures

The FTA sets out detailed provisions providing for speedy and impartial resolution of State-to-State disputes arising under the Agreement. In accordance with Trade Act guidance, the FTA's core obligation to effectively enforce environmental laws is subject to the dispute settlement provisions. An innovative enforcement mechanism includes monetary assessments as a way to enforce environmental obligations of the FTA. Special provisions give guidance on factors panels should take into account in considering the amount of monetary assessments in environmental disputes, and provide for assessments to be paid into a fund to be expended for appropriate environmental initiatives. In the event that assessments are not collected, the FTA allows a Party to take other steps to collect the assessment, including the suspension of trade benefits where appropriate.

The dispute settlement provisions also set high standards for openness and transparency, including provisions for open public hearings, public release of submissions, and rights for interested third parties to submit views.

Transparency

The Agreement contains transparency obligations similar to those in the North American Free Trade Agreement (NAFTA), which will require both Parties to the FTA, to the extent possible, to publicize their laws and regulations in a manner that will allow interested persons and the general public to understand the applicable legal requirements and the basis for any decisions taken, and also to participate in their development.

Services

The FTA's core obligations regarding services are modeled on obligations and concepts in the WTO General Agreement on Trade in Services (GATS), NAFTA, and other FTAs to which the United States is a party. These obligations apply to cross-border supply of services (such as those delivered electronically, or through the travel of services professionals across borders). Investment to supply services is governed by the Investment Chapter although a few of the cross-border obligations also apply to services investment. Core obligations include national treatment and most-favored nation treatment for services suppliers in like circumstances and avoiding application of non-discriminatory measures such as numerical limitations. The Chapter also

includes obligations on transparency in regulatory processes. The Chapter excludes services supplied in the exercise of governmental authority, *i.e.*, any service that is supplied neither on a commercial basis, nor in competition with one or more services suppliers.

The FTA also supplements traditional market access for services with strong and detailed disciplines on regulatory transparency. Regulatory authorities must use open and transparent administrative procedures, consult with interested parties before issuing regulations, provide advance notice and comment periods for proposed rules, and publish all regulations.

Labor

The Labor Chapter is similar to the Environment Chapter and creates three core provisions which oblige Parties to set high levels of protection for workers, to effectively enforce domestic labor laws, and not to weaken or reduce such laws to attract trade or investment. The Labor Chapter also creates a mechanism for high-level dialogue among labor officials, and includes an annex on cooperation. Laws designed to protect worker safety and health, including protections from environmental hazards in the workplace such as pesticide exposure, are covered under this Chapter. Pursuant to the Trade Act, the Administration is conducting a review of the FTA's likely effects on U.S. employment and labor markets. That review (available at www.ustr.gov) contains a fuller discussion of the provisions of the Labor Chapter.

Exceptions

Finally, the FTA provides for exceptions to the obligations contained in specified FTA chapters by incorporating by reference exceptions in other trade agreements, *i.e.*, the General Agreement on Tariffs and Trade 1994 (GATT 1994) and the WTO GATS Agreement. These include exceptions for certain measures that are necessary to protect human, animal or plant life or health (Article XX(b) of the GATT 1994, Article XIV(b) of the WTO GATS Agreement) and related to the conservation of natural resources (*e.g.*, Article XX(g) of the GATT 1994). The FTA specifically reflects the Parties' understanding that environmental measures may fall within the above exceptions. The FTA also incorporates Article XX(d) of the GATT 1994, which provides an exception for measures necessary to secure compliance with laws or regulations that are not inconsistent with the FTA (which could include measures to ensure compliance with environmental laws if such measures are consistent with the FTA).

B. Advisory Committee Views

The Trade Act requires that the government advisory committees on trade agreements (required by Section 135(e)(1) of the Trade Act of 1974) provide a report to Congress expressing their views on proposed trade agreements not later than thirty days after the date of the President's notification to Congress of his intent to enter into the agreement (Section 2104(e)). The advisory committees are asked to assess whether the FTA achieves the overall negotiating objectives as set forth in the Trade Act, and whether the FTA meets, with equity and reciprocity, the negotiating objectives within the sectoral and functional area of the particular committee.

The Trade and Environment Policy Advisory Committee (TEPAC) is charged with providing advice to the U.S. Trade Representative and the Administrator of the Environmental Protection Agency regarding trade and environment matters. Pursuant to Trade Act requirements, the TEPAC submitted reports on the U.S.-Chile FTA to the President, the Congress, and the U.S. Trade Representative on February 28, 2003. A majority of TEPAC members advised that the U.S.-Chile FTA meets the Trade Act objectives regarding the environment. The TEPAC noted positively that the environmental provisions were located in the body of the FTA and not in a separate or side agreement. A majority of the TEPAC believes that the investment and dispute settlement provisions of the FTA are an improvement over those found in the NAFTA and other previous trade agreements. A majority of the TEPAC was also supportive of the environmental cooperation elements of the Agreement, but expressed concern that these efforts are not adequately funded. TEPAC also noted that the reduction of tariffs and non-tariff trade barriers achieved regarding environmental technologies, used goods, and environmental services fulfill the Trade Act mandate in this area. Several TEPAC members expressed dissenting views, in particular regarding the investment provisions of the agreement. One dissenting member expressed a view that the investment provisions unnecessarily weakened investors' rights, while other dissenters felt that the provisions were inadequate to protect the U.S. Government's ability to regulate on environmental matters.

C. History and Anticipated Benefits of the FTA

On November 29, 2000, Presidents Clinton and Lagos announced their intention to negotiate a U.S.-Chile Bilateral Free Trade Agreement (FTA). Negotiations were launched on December 6 in Washington, D.C. by the U.S. Trade Representative and the Chilean Foreign Minister. Negotiating rounds concluded on December 10, 2002.

The U.S. decision to enter into FTA negotiations with Chile was motivated by a long-standing interest in expanding bilateral trade relations with Chile and strengthening hemispheric ties. At the launch of the U.S.-Chile FTA negotiations, both the United States and Chile committed to addressing the environment in the course of the negotiations. Unlike many U.S. trading partners, the Chilean government has previously accepted environmental commitments in conjunction with the adoption of trade agreements. In 1998, Chile signed an FTA with the Canadian government that closely parallels the NAFTA. It includes an agreement similar to NAFTA's environmental side agreement. Since 1998, the United States and Chile have also exchanged information on trade and the environment through the U.S.-Chile Joint Commission on Trade and Investment (JCTI).

The United States expects both political and economic gains to result from a stronger trading relationship with Chile. An FTA with Chile has the potential to provide benefits to U.S. and Chilean exporters through tariff reductions and by clearly establishing and/or simplifying the rules and procedures that U.S. and Chilean importers and exporters must follow. A U.S.-Chile

FTA is also intended to demonstrate the United States' commitment to free trade throughout the hemisphere, and set the stage for further trade liberalization in the region.

III. DETERMINATION OF SCOPE OF REVIEW

To determine the scope of this review, the Administration considered information provided by the public, advice of the TEPAC and other advisory committees with relevant expertise, and input from environmental, trade and investment experts within federal agencies. Throughout the review process, the Administration has considered relevant environmental information and analysis in developing U.S. negotiating positions, so as to ensure that insights from the review were appropriately taken into account. Domestic impacts, as mandated in Executive Order 13141, were the priority of the environmental review. However, in accordance with section 5(b) of that Executive Order, we examined possible transboundary and global effects as appropriate.

A. Public and Advisory Committee Outreach and Comments

The review was formally initiated by publication of a notice in the Federal Register, which requested public comment on the scope of the review (65 Fed. Reg. 78,253, Dec. 14, 2000). Public comments were also requested on the Draft Environmental Review, published November 7, 2001 (66 Fed. Reg. 56,366). At the time the Draft Environmental Review was published, the Administration anticipated that negotiations with Chile would be concluded in December, 2001. When the decision was made to extend significantly the negotiating period, USTR extended the deadline for comments (66 Fed. Reg. 64,897, Dec. 14, 2001). In addition, USTR and other agencies held a number of meetings with advisory committees and industry and civil society groups regarding environmental issues as the negotiations continued.

Public commentators identified a number of environmental issues in connection with the proposed FTA. The majority of these concerns related to the major natural resource and extractive industries that are central to Chile's economy, including mining, fishing, forestry and agriculture. Some comments focused on possible impacts of the FTA on the environment in Chile. Others were concerned that differences between environmental regulations in the United States and Chile would lead to a competitive advantage for Chilean industrial and agricultural producers and fishers. Additional comments on these sectors expressed concern about measuring the marginal impacts of the Chile FTA in the context of other U.S. agricultural policies and trade liberalization.

Other comments focused on the investment provisions of the Agreement and their potential impact on U.S. environmental laws and regulations. Commentators also raised issues related to sanitary and phytosanitary measures and possible increases in pollution due to increased goods transport between the United States and Chile.

The concerns raised by the public were communicated to the relevant U.S. negotiators for their consideration as they developed negotiating positions and strategy. To the extent possible, the Administration has also attempted to address these concerns in the review document. A list of all public comments received in response to the Draft Environmental Review of the Chile FTA is available in Annex IV.

B. Scoping Process Regarding Economic and Environmental Impacts

The Guidelines provide that the review shall examine “the extent to which positive and negative environmental impacts may flow from economic changes estimated to result from the trade agreement.” (*See* Guidelines, Section V.C.1, 65 Fed. Reg. 79,446.) The Administration considered available economic information in determining whether any significant potential environmental effects were likely to be associated with the predicted economic changes, and concluded that any such effects were likely to be minimal. However, given the substantial trade between the United States and Chile in natural resource sectors, we determined that several issues warranted further discussion. We examined possible environmental impacts in the areas of: agriculture, fisheries, forestry, environmental technologies, hazardous waste, mining and metals processing, pesticides and toxic substances, and wildlife and endangered species.

C. Scoping Process Regarding Regulatory Impacts

To examine possible regulatory impacts for the Final Environmental Review (*see* Guidelines, Section V.B., 65 Fed. Reg. 79,446), the Administration examined the texts of each chapter of the proposed Agreement after the negotiations concluded. In each case, we compared the obligations in these texts with current measures that would apply in the absence of the Agreement. The Administration sought to identify provisions that could affect, positively or negatively, the ability of federal, state, local or tribal governments to enact, enforce or maintain U.S. environmental laws and regulations. We also considered provisions affecting the U.S. Government’s ability to fulfill its international obligations or participate in international cooperative fora.

The Draft Environmental Review of the Chile FTA provided a brief summary for each chapter of the proposed Agreement and an analysis of any possible regulatory impacts. As noted in the Draft Review, many of these chapters do not raise significant environmental issues.² The Administration found that the environmental significance of the provisions on investment, technical barriers to trade, government procurement, environment, and labor warranted further discussion in the Final Review. Although sanitary and phytosanitary (SPS) measures were deemed environmentally significant, the SPS Chapter of the U.S.-Chile FTA simply affirms

² For summaries of the chapters or a copy of the complete text of the U.S.-Chile FTA, see <http://www.ustr.gov>.

obligations taken by both Parties under the WTO, and contains no new obligations. Accordingly, we concluded that the SPS Chapter need not be addressed in the Final Review.

D. Scoping Process Regarding Global and Transboundary Impacts

Section 5(b) of Executive Order 13141 provides that “as a general matter, the focus of environmental reviews will be impacts on the United States,” but “[a]s appropriate and prudent, reviews may also examine global and transboundary impacts.” The Guidelines state that potential global and transboundary impacts should be considered as part of the scoping process for every review, and provide guidance concerning particular factors to take into account. (*See* Guidelines, Section IV.B.5, 65 Fed. Reg. 79,446.)

In considering possible global and transboundary impacts, the Administration examined a number of factors, including Chile’s own efforts to evaluate possible environmental impacts of the FTA, and comments submitted by TEPAC and other advisers, environmental NGOs, the business community, and other members of the public. We also considered the number and breadth of multilateral environmental agreements (MEAs) to which Chile is a party, and the Chilean environmental regulatory system. (A list of these MEAs is provided in Annex III, and a summary of the Chilean regulatory system is found in Annex I.) We determined that potential impacts regarding invasive species, the use of methyl bromide, and the protection of wildlife and endangered species should be further examined. These issues are discussed in section V of the review.

IV. POTENTIAL ECONOMIC IMPACTS OF THE FTA

A. Chile’s Economy

Chile is a country of approximately 15.5 million people, located in southern South America, bordering the South Pacific and South Atlantic Oceans, Argentina, Bolivia, and Peru. Chile has a land area of roughly 750,000 square kilometers (about 8 percent of the size of the United States) that encompasses a wide range of climatic conditions (primarily temperate, but also including Mediterranean, alpine, and desert conditions). Chile has an extensive coastline (more than 6,000 km) on the southern Pacific Ocean.

Chile has a market-oriented economy characterized by a high level of foreign trade. Based on average income equivalent to about \$4,600 per person, Chile is classified by the World Bank Group as an “upper-middle-income” developing country. During the early 1990s, Chile strengthened its reputation as a role model for economic reform and experienced strong growth in real GDP as a result. Growth in real income (gross domestic product—GDP) averaged 6 percent throughout the 1990s, although the rate of growth fell in the late 1990s in part as a consequence of lower export earnings associated with the global financial crisis. Natural resources (notably

mining and forest products), agriculture, and services account for a significant share of Chile's economic activity. Exports of goods and services account for about one-third of Chilean GDP; trade with the United States accounts for about 18 percent of Chile's total exports.

B. Bilateral Trade and Investment

Chile is currently the United States' thirty-sixth largest goods trading partner, with \$6.4 billion in two-way trade during 2002. U.S. goods exports to Chile in 2002 were \$2.6 billion, down 16 percent (\$506 million) from 2001. U.S. exports to Chile accounted for 0.4 percent of overall U.S. exports in 2002. The top U.S. export categories (2-digit HS) in 2002 were: machinery (\$885 million); electrical machinery (\$355 million); vehicles (trucks, parts, and cars)(\$206 million); and optic and medical instruments (\$146 million). Chile was the United States' thirty-sixth largest source of imports in 2002. U.S. imports from Chile totaled \$3.8 billion in 2002, an 8 percent increase (\$286 million) from 2001. U.S. imports from Chile accounted for 0.3 percent of overall U.S. imports in 2002. The largest import categories in 2002 were: edible fruit and nuts (\$772 million); copper (\$655 million); wood products (\$557 million); fish and seafood (salmon fillets) (\$492 million); and organic chemicals (\$140 million). The U.S. goods trade deficit with Chile was \$1.2 billion in 2002, an \$800 million increase from the \$0.4 billion trade deficit in 2001.

U.S. trade in services with Chile (exports and imports) is 32 percent of the level of U.S. goods trade with Chile. U.S. exports of private commercial services (i.e., excluding military and government) to Chile were \$1.3 billion in 2001 (latest data available), 6.7 percent (\$94 million) less than 2000. Other private services and tourism accounted for most of U.S. exports in 2001. U.S. imports of private commercial services (i.e., excluding military and government) were \$840 million in 2001 (latest data available), down 3.6 percent (\$31 million) from 2000. Travel accounted for most of U.S. services imports from Chile. The United States registered a services trade surplus of \$472 million with Chile in 2001.

The stock of U.S. foreign direct investment (FDI) in Chile was \$11.7 billion in 2001 (latest data available), a 23.5 percent increase from 2000. U.S. direct investment in Chile is primarily concentrated in the finance, manufacturing, and banking sectors. The distribution of Chile direct investment in the United States is not available for 2001.

C. Barriers to Goods Trade

Chile already faces low tariffs on most of its exports to the United States. In 2002, the average duty on imports from Chile was 0.7 percent. Duties are applied to about 35 percent of U.S. imports from Chile, with an average rate of 1.8 percent ad valorem. The remaining imports enter duty-free. Roughly 20 percent of the duty-free trade entered under the provisions of the Generalized System of Preferences (GSP); the remainder entered under headings with a duty rate

of free.³ In contrast, a Chilean tariff of 6 percent ad valorem is applicable to virtually all U.S. export products.

Chile has signed preferential trade agreements with many countries in the Western Hemisphere; exports to Chile from countries such as Mexico, Canada, and Brazil generally receive tariff-free access to the Chilean market as a result of recent trade agreements. U.S. exports to Chile in several sectors have declined in recent years, in part as a consequence of differences in tariffs that U.S. exports face relative to those receiving preferential treatment. An FTA will address this disparity, and will facilitate trade relations between the United States and Chile, and expanded opportunities for U.S. suppliers.

D. Potential Economy-Wide Economic Impacts of the FTA

The Administration drew on a variety of sources in order to assess the likely economic impact of the U.S.-Chile FTA, including agencies with economic and trade expertise, and publicly-available, academic studies. All of these sources provided broadly similar conclusions.

Estimates of the global as well as bilateral effects of the FTA were provided by an independent study that used the Michigan Model of World Production and Trade to predict economic effects of various free trade agreements. In this study, it is estimated that a U.S.-Chile FTA would boost global welfare by \$5.0 billion.⁴ In absolute terms, most of this positive welfare effect would be enjoyed by the United States (\$4.4 billion, or 0.05 percent of GNP). Chile's welfare would increase by \$550 million (0.8 percent of GNP). Changes in the pattern and magnitude of trade attributable to the FTA will not have significant effects on the overall U.S. economy. Possible effects on U.S. employment are addressed in the Administration's review of employment impacts pursuant to section 2102(c)(5) of the Trade Act.

E. Conclusions Regarding Economically-Driven Environmental Impacts

The Administration concluded that the FTA will provide economic benefits that are positive, but small when compared to the overall size of the U.S. economy and current patterns and volumes of trade. Effects on U.S. production as a consequence of the FTA and attributable to changes in exports to Chile or other markets will be small. Similarly, effects on U.S. production from changes in imports as a consequence of the FTA also are expected to be small. The effects of the FTA are likely to vary across sectors of the economy, and may be greater for some specialized industries or subsectors. However, the conclusion that the FTA will have a small impact on the

³ Data on U.S. goods trade with Chile and tariffs applied to U.S. imports are available at: <http://dataweb.usitc.gov>.

⁴ Drusilla Brown, Alan Deardorff, and Robert Stern, "Multilateral, Regional, and Bilateral Trade-Policy Options for the United States and Japan," University of Michigan School of Public Policy Discussion Paper No. 490 (December 16, 2002) (available at <http://www.spp.umich.edu/rsie/workingpapers/wp.html>).

U.S. economy as a whole is based on an assessment that there will be a small impacts on trade and production in nearly all sectors and subsectors. For example, the sectoral effects estimated using the Michigan Model illustrate variation, but they are uniformly small.⁵

Based on the conclusion that the impact of the U.S.-Chile FTA on total U.S. goods imports, goods exports, and production is likely be small, the Administration concluded that the economically-driven environmental impacts in the United States resulting from the FTA would not be significant. For similar reasons, we concluded that the potential for overall increases in pollutant emissions and spills of hazardous materials as a result of increased goods trade attributable to the FTA (as suggested by some public comments) was not likely to be significant.

The Administration could not identify any environmentally sensitive sectors in the United States likely to be affected by the liberalization of services. The United States already allows substantial access to foreign service providers, including in environmentally sensitive areas (*e.g.*, tourism, maritime shipping, and services incidental to energy distribution). As a general matter, the U.S. market access commitments for the FTA do not go beyond access provided under the NAFTA or the GATS depending on the particular obligation. Further, Chile did not make any requests regarding U.S. non-conforming measures (*i.e.*, measures the United States has excluded from the services obligations) related to environmental regulation.

V. ADDITIONAL ECONOMICALLY-DRIVEN ENVIRONMENTAL IMPACTS SELECTED FOR REVIEW

While the environmental impacts of predicted economic changes in the United States attributable to the FTA are expected to be minimal, the Administration nevertheless identified, early in the negotiations, several environmental issues that warranted further consideration. In identifying and analyzing these issues, the Administration drew on public comments and TEPAC advice, as well as on expertise within federal agencies, and information provided by Chile. The analysis of these issues is described in greater detail in the Draft Environmental Review of the U.S.-Chile FTA (available at www.ustr.gov/environment/environmental.shtml). The analysis documented in the Draft Environmental Review, and public comments on that document helped to inform, *inter alia*, the Administration's consideration of provisions in the FTA, as well as its discussion of opportunities for environmental cooperation activities with Chile.

While the focus of environmental reviews is primarily domestic effects of the FTA, the Administration also considered issues where economic changes resulting from the FTA could have potential global and transboundary impacts. Examples of such issues include possible effects of the FTA on the use of ozone-depleting substances (methyl bromide), increased risk to both parties from invasive species, and possible effects of the FTA on wildlife and endangered

⁵ Brown, Deardorff, and Stern, *loc. cit.*

species. These issues are discussed in this section of the review.

In addition to concerns about specific environmental issues linked to the FTA, a number of comments received in response to the Draft Review expressed general concerns about environmental conditions and environmental law enforcement in Chile. The Administration carefully considered these comments, and how best to address them in the context of trade negotiations. The Administration concluded that many of these concerns are addressed through the FTA's core commitments to high levels of environmental protection, effective enforcement of environmental laws, and the commitment of the Parties to not weaken environmental laws to encourage trade or investment.

In addition, several of these comments informed the content and structure of the environmental cooperation projects included in the FTA, and provided guidance for the negotiation of the U.S.-Chile Environmental Cooperation Agreement. Cooperation efforts highlighted and enhanced through the FTA build on a long history of cooperation between the United States and Chile in many of these economic sectors. These ongoing cooperative efforts are outlined in Annex II.

Finally, the Administration took note of the fact that the Government of Chile conducted a review of certain environmental impacts from the U.S.-Chile FTA in Chile, its first for an agreement of this nature. In order to determine and measure possible environmental impacts of the FTA, the Chilean Office of International Economic Relations (DIRECON) of the Ministry of Foreign Relations developed, with the assistance of the School of Engineering of the University of Chile, an environmental impact assessment process employing a computable general equilibrium model that complements their economic and commercial assessments. The exercise, which suggested that additional economic activity could produce a slight increase of under 1 percent in certain emissions, provided data relevant to the Government of Chile's policy on pollution mitigation.

A. Environmental Effects of Changes in Agricultural, Fisheries and Forestry Trade

The Administration concluded that the impact of the FTA on U.S. production and trade in the agriculture, fish and forestry sectors is likely to be small, and that the environmental effects of the FTA also will be small. Nevertheless, some public comments suggested that there may be environmental effects in either the United States or Chile associated with the FTA. Specifically, some public comments highlighted differences between the United States and Chile in environmental laws and differences in the environmental impacts of production methods used in agriculture, fisheries, and forestry.

Agriculture

In examining this concern, the Administration considered current patterns of production and trade for both the United States and Chile, and the manner in which these may be affected by the FTA. Over the past twenty years, Chile has expanded its agricultural production and exports,

particularly in fresh and processed horticultural products and wine. Chile is a net exporter of agricultural products to all markets, including the United States. The United States is a major market for Chilean agricultural exports based on consumer demand for fresh produce and Chile's ability to grow and ship fresh produce when U.S. production seasonally declines.

Although the FTA may affect some bilateral trade in agricultural products, the Administration expects these effects to be small, and has concluded that these prospective changes are unlikely to lead to environmental impacts. For those products for which trade does increase as a result of the FTA, existing U.S. regulations regarding food safety, pesticide residues, handling and use will continue to apply and are expected to continue to be effective. Therefore, we conclude that the environmental effects of the FTA associated with agricultural products grown in the United States, or imported for U.S. consumption, will be small.

The FTA will open new market opportunities for U.S. exporters, including vis-à-vis Chile's current suppliers. Chile currently relies on markets other than the United States (Argentina, Brazil, Canada, Ecuador and Paraguay) for about two-thirds of its imported agricultural products. The marginal change in U.S. agricultural production that may result from these opportunities will be small, however, because Chile is a small market (15 million consumers). The Administration does not expect significant changes in either the level of economic activity (a scale effect), or the composition of the agricultural trade profile that would change production methods. Therefore, the effects of the FTA on the agricultural environment of the United States are expected to be small.

Fisheries

Trade between the United States and Chile in fish and related products is quite open, with low duties currently in place. Some public comments raised concerns about both the level of environmental standards (specifically as applied to aquaculture production in Chile), and compliance with environmental standards by Chilean seafood producers. Because Chilean farm-raised salmon currently enters the United States duty-free, the Administration concluded that FTA will not affect this trade. We also concluded that these concerns are addressed, in part, through the commitments in the FTA to provide for high levels of environmental protection, to not fail to effectively enforce environmental laws, and to not weaken or reduce environmental protections as an inducement to trade. In addition, the Environmental Cooperation Agreement currently under negotiation may provide further opportunities to address these concerns.

Forestry and Forest Products

Current tariffs on forest products in both the United States and Chile are low. Therefore, any changes in production and trade in forest products resulting from the FTA are expected to be small. Any changes in U.S. production of forest products that may be a result of the FTA will be minimal because exports account for a small share of U.S. production, and Chile is a small market. Over the past twenty years, Chile expanded its production and export of forest products,

based largely on plantations of introduced species. Although the United States is an important market for Chilean forest products exports, U.S. tariffs on forest products are already low, so the FTA is not expected to have a significant effect on Chilean exports.

Public comments raised concerns regarding Chilean forestry practices, including the administration of environmental regulations in the Chilean forestry and forest products sectors. Commentators were concerned that lower standards and lack of enforcement of forestry laws would lower production costs in Chile, and provide Chilean producers and investors a comparative advantage. In reviewing these concerns, the Administration noted that Chile has enacted and introduced a number of environmental laws since 1994, including in the forestry sector. (Additional information about Chilean forestry policies is available in Annex I, a more thorough description of Chilean environmental laws and regulations is available in Annex III of the Draft Environmental Review of the U.S.-Chile FTA, available at <http://www.ustr.gov/environment/environmental.shtml>.) We concluded that commitments in the FTA, including to provide for high levels of environmental protection, and to not fail to effectively enforce environmental laws, address some of these concerns. In addition, the Administration raised a number of these issues with Chilean negotiators during the negotiations, and concluded that the remaining issues are best addressed in a cooperative fashion. As a result, and through the FTA, the United States and Chile agreed to pursue a cooperative project to improve environmental law enforcement.

B. Environmental Technologies

Environmental technologies can improve quality of life and economic well-being, enhance economic efficiency, and foster environmentally sound business practices by helping control and mitigate air, water, and soil pollution. The functional areas for environmental technologies include: pollution control, pollution avoidance, monitoring and assessment, and remediation.

Under the U.S.-Chile FTA, Chile has agreed to the immediate elimination of tariffs on over 100 environmental goods and technologies. One additional technology will see tariff elimination in four years, and tariffs on four other environmental goods and technologies will be eliminated in eight years. This tariff structure will replace a current six percent *ad valorem* tariff on all imported environmental products. These tariff reductions may increase access to and the affordability of environmental technologies in Chile, which may lead to faster or more widespread adoption of such technologies.

U.S. environmental technologies exports to Chile are approximately \$80 million. U.S. environmental technologies imports from Chile are less than \$1 million. A large portion of Chile's environmental technologies market to date has been centered on providing environmental solutions for Chile's key export sectors (mining, pulp and paper, and fish products) and for mobile and stationary sources of air pollution in and around Santiago. As Chilean environmental standards for these sectors continue to be strengthened, the market for environmental goods and technologies in Chile will likely grow. Liberalization of environmental goods and services under

the U.S.-Chile FTA may provide additional opportunities to meet Chile's environmental technology needs. Bilateral cooperation projects outlined in the FTA, such as the remediation of abandoned mining sites, may also provide opportunities for the demonstration and/or adoption of U.S. environmental technologies in Chile.

C. Trade in Used Goods

The U.S.-Chile FTA calls for the immediate elimination of Chile's 50 percent surcharge on imports of used goods, which is anticipated to greatly facilitate the flow of used goods from the United States to Chile. Chilean demand exists for used capital goods, such as construction and mining equipment. This equipment is rebuilt and meets original specifications, but is not considered new. This provision of the FTA may make it affordable for Chilean businesses and individuals to replace older, less environmentally sound production equipment with newer models that may be more energy efficient or produce fewer emissions. The FTA does not require Chile to remove its import ban on used automobiles.

D. Hazardous Waste

The U.S.-Chile FTA is unlikely to lead to a significant change in the amount of hazardous waste produced in the United States. Any hazardous waste generated as a result of the FTA would be subject to U.S. regulations under the Resource Conservation and Recovery Act, and could be handled by existing treatment, storage, and disposal and recycling facilities in the United States.

In addition, there is no reason to believe that the proposed FTA will result in any increase in shipments of hazardous waste from the United States to Chile or vice versa. Although concerns were raised about such transport, a number of factors, including capacity and geography make waste shipments unlikely. Neither Chile nor the United States currently places tariffs on hazardous waste, so FTA tariff reductions will not have any effect on such trade. In addition, there are a number of factors that make shipments of hazardous waste unlikely, including the current sufficient U.S. capacity to store or process its waste, and the high cost of shipping such waste over the considerable distance between the United States and Chile.

The Chile FTA recognizes that improper treatment or storage of hazardous waste can be damaging to the environment and human health. To address this issue, the Parties have agreed to a cooperative project to remediate abandoned mining sites in Chile, including hazardous wastes in those sites.

E. Invasive Species

Because the West Coast of the United States and Chile have similar terrain, climate, and natural habitat types, the administration carefully examined the potential for movement of invasive

species between the two countries.⁶ Given the similarity in ecosystems, an increase in trade could potentially increase the risk of transfer of such species. Invasive species are typically introduced into a country through pathways such as vehicles, people and goods. Once established, invasive species can have severe economic and environmental impacts. Existing regulations to prevent entry of invasive species will not be changed by the FTA and will continue to apply in both countries. For a more detailed discussion of invasive species, see the Draft Environmental Review or visit the website of the National Invasive Species Council at <http://www.invasivespecies.gov>.

Public comments expressed a concern that increased shipping traffic between the United States and Chile may increase the spread of invasive species. Ships can serve as a pathway for invasive organisms – in ballast water, as fouling organisms on hulls, in cargo, or in packaging material. The U.S. Coast Guard currently has voluntary guidelines in place for ballast water management that apply to international ships entering U.S. ports. The U.S. Coast Guard also is in the process of establishing a national mandatory Ballast Water Management Program. Under this program, ballast water management will be mandatory for voyages originating outside the United States. The Coast Guard expects to publish the Final Rule in 2004. Such regulations should reduce the risk of introductions of invasive species. Given the small increase in trade estimated from the FTA, the likelihood of increasing the spread of invasive species through ships should be slight.

The U.S.-Chile FTA makes no changes to the programs, procedures, or standards implemented by the Animal and Plant Health Inspection Service (APHIS) to prevent the establishment and spread of invasive species. The stringent SPS requirements in the United States are appropriate for managing new or increased risks associated with the potential introduction of invasive species. The FTA does, however, provide for enhanced cooperation regarding invasive species issues through the Wildlife Without Borders Program.

F. Methyl Bromide

Commentators expressed concerns that increased exports of agricultural products from Chile may lead to additional releases of methyl bromide, an ozone-depleting substance. Methyl bromide is used in the United States and Chile as a soil fumigant and as an insecticide and fungicide on grains, fruits, nuts, wood products and flowers, as well as in storage facilities or transport containers prior to shipping, and in agricultural quarantine facilities.

In examining this issue, the Administration concluded that tariff changes under the Agreement are not expected to spur significant increases in exports of agricultural commodities requiring preshipment and quarantine treatment with methyl bromide. Therefore, the FTA is unlikely to

⁶ Two of the world's five Mediterranean-climate regions are found in California and Chile. See: Harold A. Mooney, 1988. "Lessons from Mediterranean-Climate Regions", p. 158-59. In E. O. Wilson, ed. *Biodiversity*. Washington: National Academy Press.

have a significant impact on stratospheric ozone depletion from methyl bromide. In fact, the FTA may lead to reductions in methyl bromide use, as the Parties have agreed to a cooperative project to research less harmful, economically viable alternatives to methyl bromide.

Both the United States and Chile are parties to the Montreal Protocol on Substances that Deplete the Ozone Layer, a multilateral environmental agreement (MEA) to reduce stratospheric ozone depletion.

G. Mining and Metals Processing

It is unlikely that the elimination of already low U.S. tariffs on metal products from Chile will have a significant impact on long-term mining or metal production capacity and utilization rates in the United States. Since neither U.S. mine production nor primary metal production is expected to increase as a result of the FTA, the Agreement is not expected to have a significant impact on the environment in the United States.

Some groups expressed concerns that the investment provisions of the FTA could encourage increased U.S. investment in mining in Chile, thereby increasing pollution from mining and metals production. Based on its analysis, the Administration does not expect significant change in U.S. investment in the mining sector in Chile as a result of the FTA. In addition, investment changes from a free trade agreement would be difficult to distinguish from increases in investment that are the result of other factors, including the high quality and quantity of Chilean copper deposits that currently confer a comparative advantage to Chile in the global marketplace.

Both Chile and the United States participate in a number of fora to address sustainable development issues related to mining, including mining-related pollution. The FTA includes a cooperative environmental project specifically focused on remediating abandoned mining sites in Chile.

H. Pesticides and Toxic Substances

The potential health risks associated with the consumption of pesticide residues on agricultural imports from Chile are likely to be minimal, since all imported products must meet pesticide residue tolerances set by the U.S. government. The systems currently in place to test and monitor these residue levels are sufficient to meet any expected increases in agricultural imports as a result of the Agreement. The FTA is also unlikely to change agricultural production decisions in the United States, and therefore unlikely to increase the use of pesticides in this country.

Both the United States and Chile have signed the Stockholm Convention on Persistent Organic Pollutants (POPs). Once the Stockholm Convention enters into force for its parties it will require them to control or eliminate the intentional generation and use of certain chemicals used as pesticides and in industrial applications. Should they become Party to the Convention, the

United States and Chile would conduct trade in a manner consistent with their obligations under the Convention.

Both countries are also signatories to the Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade (PIC). Once the Rotterdam Convention enters into force for its parties, it will require them to comply with specific, internationally accepted practices governing trade in chemicals that have been domestically banned or severely restricted based on health or environmental concerns.

During the course of the FTA negotiations, the Parties identified an opportunity to address pesticide issues, and have agreed to undertake a cooperative environmental project to provide training on the safe handling of pesticides for small farmers and agricultural workers in Chile.

I. Wildlife and Endangered Species

In response to both public comments and interagency review of environmental issues, the Administration examined the possible effects of the FTA on wildlife and endangered species. Details on the species and trade-related concerns examined are contained in the Draft Environmental Review (<http://www.ustr.gov/environment/environmental.shtml>). We concluded that the FTA is unlikely to cause an increase in legal trade in wildlife because tariffs in such products in both Chile and the United States are already low. In addition, given the strong legal protections for wildlife and endangered species in place in both the United States and Chile, the Administration concluded that it is unlikely that the FTA will contribute to an increase in illegal trade of wildlife or endangered species. Both countries have good records on compliance with international laws governing wildlife trade, and have worked cooperatively on many of these issues.

The Administration also considered the possibility that the FTA could affect wildlife through possible changes in production in industries that affect wildlife or wildlife habitat. Such effects, however, are not expected to be pronounced for several reasons. U.S. tariffs on products in the fishing, forestry, and mining sectors already are low, so the FTA is not expected to significantly alter Chilean exports to the United States. Chilean tariffs are relatively low in the fishing and forest product sectors, so any additional reductions will be small, making them unlikely to alter U.S. production.

VI. POTENTIAL ENVIRONMENTAL REGULATORY IMPACTS SELECTED FOR REVIEW

A. Environment

Overview

The FTA's environment and related provisions were developed in accordance with the Trade Act (see Section I.A above) and our experience with other trade agreements to which the United States is a party. The environment-related provisions are designed to ensure that U.S. trade and environment policies are mutually supportive and to develop mechanisms for dialogue and cooperation between the Parties that will assist them in creating or enforcing environmental laws and policies and protecting the environment. The provisions recognize that trade agreements can provide positive opportunities for enhancing environmental protection and that the public can play an important partnership role in crafting environmental policies, achieving environmental goals, and building capacity for environmental protection. The provisions also respond to concerns that countries may choose not to enact or enforce environmental laws as a means to attract or retain trade or investment, or to weaken environmental laws in order to do so. Further, industry and public interest groups have stressed the importance of transparent environmental laws and regulations and consistent and accessible procedures for the enforcement of such laws, both of which allow businesses and citizens to clearly understand their obligations and the remedies available under the law.

The resulting FTA environment package places core environmental obligations within the body of the FTA. These obligations include: (1) a commitment to maintain high levels of environmental protection and to strive to improve those levels (Article 19.1); (2) an obligation not to fail to effectively enforce environmental laws through a sustained or recurring course of action or inaction in a manner affecting trade between the Parties, subject to the right to exercise enforcement discretion and to make decisions regarding the allocation of resources to other environmental matters deemed to be a higher priority (Article 19.2.1); and (3) a commitment not to weaken or reduce the protections afforded by environmental laws in order to attract trade or investment (Article 19.2.2).

The Chapter creates a ministerial-level Environment Affairs Council, which, for the United States, will be chaired by the Under Secretary of State for Global Affairs. The Council will serve as a forum for dialogue and information sharing on environmental matters. Either Party may request a meeting of the Council regarding any matter covered by the Environment Chapter of the FTA.

As discussed previously, the effective enforcement obligation is enforceable through the FTA's dispute settlement procedures (*see* Article 19.6). An innovative feature allows the imposition of an annual monetary assessment on a Party that fails to remedy a violation of its effective enforcement obligation. Once paid, the assessment will be placed in a fund and used for appropriate environmental initiatives, including efforts to enhance environmental law

enforcement. To provide additional incentives for compliance, there are also provisions for backup mechanisms in the event that an assessment is not paid. These backup mechanisms include the suspension of tariff benefits to collect the assessment.

Elements of the Agreement's dispute settlement procedures ensure that environmental expertise will be available to help resolve environmental disputes. The Parties must attempt to resolve all environment related disputes through consultations in the Environment Affairs Council before requesting that an arbitral panel be convened. In addition, the FTA creates a roster of individuals with expertise in environmental law that the Parties can use to select panel members for environmental disputes. Arbitral panels may also consult environmental experts during their deliberations, and must consider requests from non-governmental entities to submit written views regarding the dispute that may assist the panel in evaluating the arguments of the Parties.

An article on procedural matters (Article 19.8) contains commitments by each Party to provide certain basic remedies for violations of its environmental laws and to provide appropriate due process and public access to environmental enforcement proceedings. Several provisions in the Chapter establish mechanisms for public participation (*e.g.*, Articles 19.3, 19.4, 19.5, and Annex 19.3). Article 19.9 addresses the relationship of the FTA to multilateral environmental agreements (acknowledging the negotiations on this issue currently taking place in the WTO), and Article 19.10 is a hortatory provision encouraging the promotion of voluntary corporate stewardship.

Eight initial environmental cooperation projects are outlined in the Agreement, and the Parties commit to negotiate a separate Environmental Cooperation Agreement (ECA) that will guide future cooperative endeavors. Both the initial projects and the ECA should improve the ability of the Parties to effectively enforce environmental laws and protect the environment. Section VII of this review provides additional information on environmental cooperation.

As in previous agreements, the FTA contains a number of environment-related exceptions to the obligations in certain chapters. These exceptions are based on those in the NAFTA, Article XX of GATT 1994 (Articles XX(b),(d), and (e)), and GATS Article XIV (Article 21.1). In addition, the Government Procurement Chapter clarifies the Parties' understanding that the obligations in the Chapter related to technical specifications are consistent with the ability of the Parties to prepare, adopt or apply technical specifications that promote the conservation of natural resources in government procurement that is covered by the Chapter. The clarification reaffirms that the international trading rules support U.S. green procurement programs such as the EPA Energy Star program and government procurement requirements favoring the purchase of recycled paper.

Potential Environmental Regulatory Impacts

To review the potential regulatory impacts of the environment provisions of the FTA, the Administration examined their implications for U.S. environmental laws, regulations and other policies, and the ability of state, local and tribal authorities to regulate with respect to

environmental matters, as compared to current U.S. obligations that would prevail in the absence of the FTA. We also considered relevant provisions in the preamble and the Dispute Settlement, Transparency, Government Procurement and General Exceptions chapters of the FTA.

The FTA encourages effective enforcement of environmental law, and as the United States effectively enforces its environmental law, the FTA requires no change in U.S. enforcement practices. Moreover, the FTA recognizes the right of each Party to establish its own levels of domestic environmental protection, so long as the Party maintains a high level of environmental protection and strives to continue to improve its environmental laws. In addition, the definition of “environmental law” includes only those U.S. statutes or regulations that are enacted by the U.S. Congress, or promulgated pursuant to an act of Congress, that are enforceable by an action of the federal government (Article 19.11).

The environment provisions of the FTA have positive implications for the enforcement of environmental laws and the furtherance of environmental protection in the United States and Chile. The FTA’s core environmental obligations encourage high levels of environmental protection in both countries. The Chapter creates a forum for high-level officials from both Parties to discuss issues and obligations, establishes procedures for public participation, and outlines projects and goals for environmental cooperation between the Parties. This forum should build upon a long history of environmental cooperation between the United States and Chile. Other transparency and public participation provisions of the FTA (*e.g.*, Chapter 20) can also be expected to facilitate the effective development of environmental laws and regulations.

B. Investment

Overview

The Investment Chapter is designed to provide a secure legal framework for investment between the Parties and reduce protectionist barriers, taking into account governments’ need to protect public welfare. The United States is party to 45 bilateral investment treaties (BITs) and also has investment obligations in Chapter 11 of the NAFTA. These agreements all include provisions allowing private investors of a Party to submit to arbitration a claim that another Party has violated one or more of the investment obligations and has thereby caused loss or damage to the investor or investment (“investor-State” mechanism). Investment obligations have brought benefits in recent decades, helping to remove barriers to U.S. investment abroad and to provide U.S. investors overseas with open, transparent, and non-discriminatory treatment. However, concerns have been raised that arbitral tribunals could potentially misinterpret the investment obligations to be inconsistent with legitimate government regulatory functions, including environmental protection.

The Trade Act discussed the relationship between substantive investment protections (*e.g.*, expropriation, fair and equitable treatment, and full protection and security) and U.S. legal principles and practice. The Conference Report accompanying the Trade Act states, “it is a priority for negotiators to seek agreements protecting the rights of U.S. investors abroad and

ensuring the existence of a neutral investor-State dispute settlement mechanism. At the same time, these protections must be balanced so that they do not come at the expense of making U.S. Federal, State, and local laws and regulations more vulnerable to successful challenges by foreign investors than by similarly situated U.S. investors.” H. Rpt. 107-624 (2002).

Potential Environmental Regulatory Impacts

In this review of the potential regulatory impacts of the FTA’s investment provisions, our task was to examine the implications of the FTA’s investment provisions for U.S. environmental laws, regulations and other obligations, and the implications for the ability of state, local, and tribal authorities to regulate with respect to environmental matters, in comparison to the situation that would prevail in the absence of the FTA.

We considered several investment provisions in the Chile FTA that are similar to the NAFTA and numerous U.S. BITs, and U.S. experience with these provisions. These provisions contain a number of protections that help preserve our ability to regulate in the environmental area. For example, the obligations providing for national treatment and most-favored-nation treatment (Articles 10.2 and 10.3) make clear that these obligations apply to investors and investments “in like circumstances.” This phrase signals that domestic regulation (including environmental regulation) may, in furtherance of non-discriminatory policy objectives, distinguish between domestic and foreign investors and their investments, as well as among investors of different countries and their investments, without necessarily violating the obligations to accord national treatment and most-favored-nation treatment. For example, regulators in appropriate circumstances may apply more stringent operating conditions to an investment located in a wetland, or a more heavily polluted area, than to an investment located in a less environmentally sensitive area.⁷

We also considered several other FTA provisions that evidence the Parties’ intent that the investment obligations should be interpreted in a manner consistent with each Party’s ability to regulate in the environmental area. Article 10.1.2 makes it clear that in the event of any inconsistency between the Investment Chapter and any other chapter (such as the Environment Chapter), the other chapter will prevail to the extent of the inconsistency. Article 10.12, similar to the NAFTA, provides that nothing in the Chapter shall be construed to prevent a Party from taking measures otherwise consistent with the Chapter in order to ensure that investment activity in its territory is undertaken in a manner sensitive to environmental concerns. Further, as noted above, one of the core obligations in the Environment Chapter (Article 19.2.2) provides that each Party shall strive to ensure that it does not weaken or reduce the protections afforded in its environmental laws as an encouragement for investment in its territory.

⁷ As with prior U.S. investment agreements, the FTA expressly provides for exceptions to the Parties’ obligations concerning performance requirements to preserve each Party’s ability to take measures necessary to protect the environment, health or safety, relating to the conservation of living or non-living natural resources. See Article 10.5.3(c). For a fuller discussion of performance requirements, see the Draft Environmental Review of the U.S.-Chile FTA at 64-65 (<http://www.ustr.gov/environment/environmental>).

Our analysis gave particular weight to the numerous changes in the FTA's investment provisions from prior investment agreements. In our view, these provisions are significant improvements and further reduce the possibility of a successful challenge under the investment provisions to a U.S. environmental law or regulation. These provisions should help to alleviate public concerns with some arbitral proceedings that have been brought under the investment provisions of the NAFTA and concerns that arbitral tribunals may adopt interpretations that go beyond the substantive rights contained under U.S. law.

For example, the FTA provides considerably more detail than in previous investment agreements concerning the Parties' understanding of the obligation to provide investments a "minimum standard of treatment" in accordance with "customary international law" (Article 10.4). Thus, Article 10.4.2 provides that the concepts of "fair and equitable treatment" and "full protection and security" do not require treatment in addition to or beyond that contained in customary international law, and do not create additional rights. Article 10.4.2(a) explains that fair and equitable treatment under customary international law includes the obligation not to deny justice in adjudicatory proceedings in accordance with the principles of due process embodied in the "principal legal systems of the world," including that of the United States. Annex 10-A provides further clarity concerning the Parties' understanding of the term "customary international law."

Similarly, the Parties have clarified the FTA's provision on expropriation (Article 10.9) by including an interpretative annex that elaborates on relevant principles of U.S. law and clarifies the relationship of indirect expropriations and domestic regulations. Specifically, the annex makes clear that "[e]xcept in rare circumstances, nondiscriminatory regulatory actions by a Party that are designed and applied to protect legitimate public welfare objectives, such as public health, safety, and the environment, do not constitute indirect expropriations."

Concerning procedures, the investor-State dispute settlement provisions contain a number of innovations providing for increased transparency and enhanced assurance that arbitral tribunals will properly interpret the investment obligations. Article 10.20 requires that all documents submitted to or issued by a tribunal be made available to the public (except for certain business proprietary and other confidential information), and that arbitral proceedings are to be open to the public. Article 10.19.3 expressly enables the tribunal to accept *amicus curiae* submissions, allowing the public to present views on the proceedings. To make the proceedings more efficient and to dismiss frivolous claims, tribunals may decide the preliminary question of whether the investor has made out a claim under the Chapter and whether the tribunal has jurisdiction; upon requests of the respondent, these questions may be decided on an expeditious basis. To discourage frivolous filings (including frivolous claims), the tribunal is expressly authorized to award attorney's fees and costs in connection with such filings.

Finally, to improve the consistency and coherence of arbitral decisions, Article 10.19.2 allows the government Party that is not a party to the dispute to make oral and written submissions to the tribunal regarding the interpretation of the FTA. The litigants and the non-disputing government Party may review a draft tribunal award, and the litigants, including the defending government,

may submit comments on the proposed award. Under Article 10.21.3, all interpretations of the FTA by the Free Trade Commission charged with implementing the FTA shall be binding on arbitral tribunals. Further, Article 10.19.10 and an accompanying annex contemplate the establishment of an appellate mechanism to review arbitral awards, permitting the Parties either to establish a bilateral appellate mechanism or to access a future multilateral appellate mechanism.

Conclusion

The investor-State mechanism in the FTA makes existing international arbitral fora available to Chilean investors in the United States to bring possible claims based on U.S. environmental measures. However, the FTA's provisions, in particular the numerous improvements over previous investment agreements described above, reduce the risk that arbitral tribunals would find inconsistencies between the investment provisions and U.S. environmental measures. Thus, the FTA provisions should not significantly affect the United States' ability to regulate in the environmental area.

C. Technical Barriers to Trade

The chapter on Technical Barriers to Trade (TBT) improves the implementation of the WTO Agreement on TBT, and builds upon the WTO disciplines to promote transparency and accountability in regulatory decision-making. The Chapter provides for enhanced bilateral cooperation to facilitate market access and establishes a Committee to help achieve these results and to oversee implementation of the new FTA rules.

Provisions of the TBT Chapter focus on cooperation, information exchange, and greater transparency, and are likely to have a positive impact on the development and implementation of technical regulations and standards, and on the ability to resolve trade concerns between the Parties. For example, the TBT provisions require that each Party disclose the object and rationale for proposed technical regulations and to make public its responses to significant comments received from interested parties. These transparency measures foster accountability in rule-making, and may assist the United States, Chile and other interested countries in evaluating proposed rules.

D. Labor

The labor provisions of the FTA are designed to ensure that the Parties provide for labor standards consistent with internationally recognized labor rights and provide appropriate mechanisms for dialogue, cooperation and enhanced opportunities for improving labor standards.

The Administration concluded that the labor provisions of the FTA will not impact the ability of the U.S. Government to enact or enforce environmental laws or regulations. Similar to the Environment Chapter, we also found that mechanisms for dialogue and cooperation created in the Labor Chapter may positively impact the ability of the Parties to share information and provide

adequate labor protections.

The Labor Chapter includes an obligation that the Parties not fail to effectively enforce their domestic labor laws, through a sustained or recurring course of action or inaction, in a manner affecting trade between the Parties. Environmental groups had raised concerns that possible changes in pesticide use as a result of the FTA could impact the health of workers and consumers that were exposed to these pesticides. Laws to protect worker safety and health in the United States and Chile are covered by the provisions of the FTA's Labor Chapter, including the effective enforcement provision. As the United States is currently obligated by domestic regulation to enforce its labor laws, this obligation in the FTA does not change U.S. regulatory authority or responsibility.

While U.S. regulatory obligations are not changed by the Agreement, a Party to the FTA could be subject to the dispute settlement procedures of the Agreement, should a Party fail to effectively enforce its labor laws. The dispute settlement procedures of the FTA provide that a Party may face monetary assessments, and possibly the withdrawal of tariff benefits, if a Party is found to be noncompliant with the effective enforcement obligation. Nothing contained in the labor provisions changes the ability of either Party to set its own levels of domestic labor protections. The FTA covers laws enacted by the U.S. Congress, or regulations promulgated pursuant to such laws, that are enforceable by the Federal Government. Additional information about the labor provisions and the possible employment of effects of the U.S.-Chile FTA is available in the employment review of the Agreement, which can be found at <http://www.ustr.gov>.

VII. ENVIRONMENTAL COOPERATION

The United States and Chile have worked together to address environmental issues for many years. Ongoing cooperative efforts encompass issues such as fisheries management, the protection of migratory birds, and the efforts to protect endangered and threatened species. A list of ongoing cooperative efforts between the United States and Chile can be found in Annex II.

Environmental cooperation is a central component of the environmental provisions of the FTA. The United States and Chile have agreed to undertake eight initial environmental cooperation projects, and to negotiate a separate Environmental Cooperation Agreement (ECA) that will guide future efforts undertaken pursuant to the ECA work program. As discussed above, Congress provided a principal negotiating objective in the Trade Act to strengthen the capacity of U.S. 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.

Initial Cooperative Activities

Public comments and interagency discussions during the environmental review process identified a number of environmental issues for further attention, and the Chilean and United States negotiators exchanged information about the Parties' needs and priorities for environmental cooperation. Based on these discussions, the Parties agreed to further develop the environmental cooperation projects outlined below:

- (a) *Developing a Pollutant Release and Transfer Register (PRTR) in Chile.* The PRTR is a publicly available database of chemicals that have been released to air, water and land or transferred off-site for further waste management. In developing the Register, the Parties will cooperate and draw on lessons learned from other PRTR projects. Industrial facilities will report annually on the amounts of chemicals they have released or transferred and the final destination of those chemicals. Reported data will be made publicly available;
- (b) *Reducing Mining Pollution.* The United States will assist Chile in reducing contamination and pollution resulting from past mining practices by working with Chile to identify sources of pollution and explore cost-effective remediation methods;
- (c) *Improving Environmental Enforcement and Compliance Assurance.* The Parties will provide training and exchange information to enhance each Party's capacity to enforce its environmental laws and regulations, and will develop and strengthen their cooperative relationships to promote compliance, enforcement and environmental performance;
- (d) *Sharing Private Sector Expertise.* The Parties will seek to increase environmental stewardship by inviting enterprises of each Party to share their experiences in developing and implementing programs that have reduced pollution, including, where appropriate, demonstrating the financial benefits of these measures;
- (e) *Improving Agricultural Practices.* To help reduce pollution from agricultural practices in Chile, the Parties will adapt and implement a training program for Chilean farmers and other workers to promote appropriate handling of chemical pesticides and fertilizers, and to promote sustainable agriculture practices. The Parties will work jointly to modify existing training programs to fit Chilean agricultural practices and customs;
- (f) *Reducing Methyl Bromide Emissions.* To mitigate methyl bromide emissions the Parties will seek to develop effective alternatives to that chemical, which Chile and the United States have committed to phase out under the *Montreal Protocol on Substances That Deplete the Ozone Layer*;

- (g) *Improving Wildlife Protection and Management.* To protect wildlife in Chile and the Latin American region, the Parties will work together to build capacity to promote the management and protection of biological resources in the region, such as by collaborating with universities and providing programs for wildlife managers, other professionals and local communities in Chile and the region;
- (h) *Increasing the Use of Cleaner Fuels.* The Parties will work to improve the environmental quality of fuels, especially diesel fuel and gasoline, used in their territories by providing joint training and technical assistance on a variety of fuels-related environmental issues. The Parties will publicize the benefits of this work.

The Environmental Cooperation Agreement

The United States and Chile have already begun negotiating an Environmental Cooperation Agreement (ECA). A U.S. delegation, led by the Department of State, traveled to Santiago, Chile in January 2003, and concluded negotiations on a framework for future cooperative efforts. The objective of the ECA will be to establish a framework for cooperative activities between the United States and Chile in a number of areas of work, including protecting the environment and preventing pollution and the degradation of natural resources and ecosystems, in support of sustainable development.

The cooperative activities will reflect national priorities as agreed by both parties and will be set forth in a bi-annual work plan. It is intended that the work plan will be established and developed by a Joint Commission for Environmental Cooperation, to be chaired jointly by the U.S. Department of State and the Chilean Ministry of Foreign Affairs, and with the participation of representatives from government agencies in each country. In developing and implementing work programs, it is expected that the Commission will take into account the views of the public, and the views and recommendations of the appropriate government agencies in each country, as well as those of the Environment Affairs Council. In this manner, environmental issues that arise from activities of the Environment Affairs Council, including through dialogue with the public on FTA-related environmental matters, may have an outlet for action through the U.S.-Chile ECA.

ANNEX I

Background on Chile's Environment and Environmental Regulatory Regime

Since 1994, the environment has moved increasingly into Chile's political and social mainstream, and is today considered a fundamental factor, socially as well as legally, in Chile's economic development. Legal and regulatory structures are in place and evolving, and public environmental awareness and participation in environmental decision-making is increasing. In 1994, Chile created a national environmental agency (CONAMA) and introduced draft environmental legislation. The United States provided technical assistance in this effort. Chile has also enacted science-based standards and tools for policy-making, and major industrial and public works projects employ state-of-the-art environmental protection and waste recovery technology. One result of these efforts has been a substantial decrease in fixed-source air pollution in the Santiago area.⁸

Chile has also increased transparency in government initiatives and has implemented consultation processes in public policy formation. The Chilean government, like the United States, conducted vigorous outreach efforts to include the views of civil society in this FTA.

Exports of mining, agriculture, forestry and fishery products are a major force in the Chilean economy. These exports reflect Chile's coastal and marine natural resources, land use patterns, and the country's geography. Chile devotes roughly five percent of its land to agriculture and 22 percent to forest and woodland. Since many of Chile's primary export industries are in natural resource sectors (mining, pulp and paper, as well as fish products), its environmental policies have focused on maintaining its natural resource base, as well as reducing mobile and stationary sources of air pollution in and around Santiago. The Chilean government has recently restructured many of its processes for enacting and enforcing these environmental provisions. Basic information on these sectors of the Chilean economy is outlined below. Further information on Chile's environmental laws and regulatory system is contained in Annex III of the Draft Environmental Review (<http://www.ustr.gov/environment/environmental.shtml>).

Forestry

Chile is a leading exporter of wood products, and the level of many exports, including wood chips, continues to grow. Both environmental and industry groups submitted public comments that expressed concerns about environmental conditions in this sector, including the loss of biodiversity and damage from clear-cutting and burning due to further opening of native forests for timber harvests. Many of the same groups indicated strong concern that environmental aspects of Chilean forestry laws were not as stringent as those in the United States, and questioned whether adequate legal mechanisms were in place to ensure proper enforcement of environmental laws in Chile. Some of the key forestry laws in Chile include:

- DFL 701 of 1974, which requires all native forest landowners to file a forest management

⁸ *Chile Environmental Technologies Export Market Plan*, U.S. Department of Commerce, May 1998.

plan with the National Forest Corporation (CONAF) before cutting down any trees. After a plan is submitted, CONAF has 120 days to accept or reject it.

- The cutting of three types of trees – alerce, araucaria, and cypress of the Guaitecas – is prohibited in Chile.
- The 1994 Environmental Framework Law requires the timber industry to complete environmental impact studies when submitting proposals for large-scale timber operations. All timber projects of a certain magnitude, or with significant potential environmental impact must submit such an impact study. Available resources and enforcement of existing laws also may be factors in requiring an impact study.

Fisheries and Marine Products

Chile's long coastline is adjacent to major ocean fish populations sustained by the ideal conditions of the Humboldt current. Chile also has an outstanding location in its southern lakes for raising fresh water fish. Its geography, combined with high quality, locally available inputs, advanced technology, low labor costs, and excellent transportation links, make Chile a low-cost fish producer. The Chilean government recently updated environmental regulations that apply to all aquaculture operations, including salmon farming, which are in the final stages of implementation. Since 1997, environmental impact assessments are required on all new production activities in Chile, including aquaculture.

Mining

Chile has also made improvements in environmental regulations relating to its mining industry. In 1992, the government of Chile passed DL 185, which is intended to reduce fixed-source air pollutants. The decree stipulates that the mining district of Chile must meet emission standards published by the U.S. Environmental Protection Agency. As a result, the Chilean state copper company, CODELCO, invested several hundred million dollars in environmental control equipment, with the expectation that emissions of sulfur and arsenic will be reduced by 95 percent and 97 percent, respectively. Foreign mining companies operating in Chile must also meet these standards. DL185 recently was updated per Supreme Decree 59.

Protection of Wildlife

Both Chile and the United States are Parties to the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), a treaty that regulates international trade in wildlife through a system of permits for species listed in one of three appendices to the Convention. Chile's implementation of CITES is generally considered to be good. Chile issues permits in accordance with CITES requirements, consistently submits the required CITES annual reports, and has not been the subject of any trade suspensions. Enforcement along its long border can be difficult, especially because Chile has heavy truck traffic from neighboring countries which are transporting goods to Chilean ports for export to third countries.

CITES Management Authority responsibilities are divided among three agencies. The Servicio Agrícola y Ganadero (SAG) is responsible for terrestrial fauna and non-timber flora, the Servicio Nacional de Pesca (SERNAP) is responsible for marine species, and the Corporación Nacional

Forestal (CONAF) is responsible for forest products. CITES Scientific Authority responsibilities for Chile are also divided among three agencies: the Comisión Nacional de Investigación Científica y Tecnológica (CONICYT) for terrestrial fauna and non-timber flora, SNP for marine species, and CONAF for forest products. Wildlife imports and exports are controlled largely by SAG and the Chilean Customs Service.

Living specimens and skins confiscated by Chilean authorities from 1991-1994 included more than 30 taxa.⁹ Many of the specimens were non-native species, confiscated during trans-shipment from other countries, principally Peru, Bolivia, and Argentina. Confiscations, however, may not be indicative of the actual level of illegal export of native species, especially from more remote parts of Chile. Iriarte (1994) estimated that 10,000-15,000 skins of foxes and other carnivores were being illegally shipped from the Magallanes region of extreme southern Chile to the Rio Gallegos region of Argentina.

The Hunting Law of 1993 protects most of Chile's vertebrate fauna from hunting. Despite this protection, many Chilean vertebrate species remain in danger of extinction.

⁹ Iriarte, J.A., P. Feinsinger, and F.M. Jaksic. 1997. "Trends in wildlife use and trade in Chile". Biological Conservation 81:9-20.

ANNEX II

Inventory of Environmental Cooperation Activities

U.S. Environmental Protection Agency

In the mid-1990's, EPA's cooperative relationship with its Chilean counterpart, the National Environment Commission (CONAMA), included environmental technical cooperation to help build Chile's environmental protection capacity on such issues as solid waste management, cleaner production, and laboratory development for environmental monitoring. EPA has also provided ad hoc technical assistance to Chile on mining (*e.g.*, mine closure), and on air pollution control and abatement in the Santiago metropolitan area. Marine experts from EPA's Region 3 met with their Chilean counterparts and offered technical assistance on conservation issues. Specific examples of technical assistance include the following:

Climate Change – EPA has worked with Chile on capacity building to address global climate change, including “co-benefits” issues, or integrated environmental strategies, and there is ongoing work in this area. One current project focuses on assessing the local health and welfare benefits of greenhouse gas mitigation, as well as the global benefits of Chile's recent emission reduction efforts.

Support for Vehicle Emissions Inventory – EPA participates in the Clean Air Initiative in Latin American Cities (CAI), a World Bank-initiated program to improve air quality in Latin American cities. In support of the CAI, EPA is working with the University of California at Riverside to develop and disseminate an International Vehicle Emissions Inventory tool that will assist cities in evaluating the impact of their vehicles on air pollution, and will help in assessing differing control strategies. EPA is working collaboratively with CONAMA to apply this model in Chile and to transfer it to other cities in Latin America.

Research and Laboratory Development – EPA is undertaking several research and capacity building efforts related to heavy metals.

- Arsenic in Drinking Water: This project, carried out in collaboration with the University of Kentucky, assesses the reproductive effects of arsenic in drinking water. This study is the largest and best controlled study to date on the effects of arsenic in drinking water on reproduction.
- Copper in Drinking Water: EPA chairs the International Technical Advisory Group under the auspices of the Pan American Health Organization for an epidemiologic study being conducted by the University of Chile to examine the effect of different concentrations of copper in water used for drinking and preparation of food on abdominal pain, nausea, diarrhea, and vomiting. Data from the study are currently being analyzed.
- Copper Exposure in Santiago: EPA participated in an advisory group for a study that was

conducted under the auspices of Catolica University and the Chilean Institute for Minerals and Metals (CIMM) in Santiago. The study examined exposure to copper in the population of Santiago from the leaching of copper pipes and copper in food and air. The effect of copper on plant growth was also studied. Results from the studies are now being published.

- Laboratory Capacity Building: EPA provided technical assistance to CIMM for the construction and operation of an ultra-clean facility for analysis of trace metals in environmental samples. This type of facility is necessary to conduct reliable analysis of water samples.

U.S. Department of the Interior (DOI)

Mining

The U.S. and Chile are both members of the Mines Ministries of the Americas Conference (CAMMA), which was created in 1995 and is the only high-level minerals and metals forum in the Americas. Sustainable development in the mining industry is the focus, and twenty-two countries are members.

In 2000, DOI attended the first meeting of a project regarding the Closures of Abandoned Mines in the Americas, in Santiago. At the request of its Minister of Mining, Chile initiated a study for the development of a regulatory system that will regulate the closings of abandoned or exhausted mines in Chile. It is anticipated that these efforts will also be implemented in surrounding countries.

Parks

The U.S. National Park Service and Chile (through the National Forest Corporation of the Ministry of Agriculture, CONAF) entered into a bilateral agreement regarding technical assistance for parks in January, 2000. This agreement is valid for five years. In September 2000, National Park System personnel went to Chile to participate in a workshop on gateway communities adjacent to National Parks. CONAF came to the United States later in the year for a study tour of parks in Utah, California, and West Virginia.

U.S. Department of Commerce (DOC)

National Oceanic and Atmospheric Administration (NOAA)

Fisheries:

Memorandum of Understanding (MOU)

The National Marine Fisheries Service and the Servicio Nacional de Pesca (SERNAP), the Chilean Fisheries Service, signed an MOU to cooperate on fisheries in July of 1995. After the MOU was signed, two other Chilean fisheries agencies, the Subsecretariat of Fisheries (Sub-Pesca) and the Institute of Fisheries Promotion (IFOP) decided to participate in the Chilean

delegation along with SERNAP, which continues to coordinate the meetings.

Research

The U.S. and Chile cooperate on research, sampling, and other issues pertaining to turtles, cetaceans, anchovies, sardines, jack mackerel, and swordfish and other highly migratory species.

Enforcement and Management

The U.S. and Chile have had joint discussions focusing on Chile's highly effective marine mammal and seabird protection efforts, as well as exchanges on highly migratory species management programs. Data has also been exchanged on the operations of Chilean pelagic longliners in the Atlantic Ocean. The United States is working closely with Chile on implementing the Convention on the Conservation of Antarctic Marine Living Resources (CCAMLR) Catch Documentation Scheme for Patagonian and Antarctic toothfish.

Illegal, Unregulated, and Unreported Fishing: Stemming from a conference in Santiago in 2000, and other events to address monitoring, control, and surveillance, countries have agreed to create an international network. The network will allow real-time contact by enforcement professionals (for training exercises and enforcement efforts) without dependence on formal diplomatic channels. At present, the United States and Chile have been the primary players in this endeavor and the international network's website is in the construction phase. The U.S. and Chile exchange information and coordinate development with regard to Vessel Monitoring Systems (VMS).

Multilateral Issues

FAO Initiatives: Support and implement the FAO International Plans of Action (IPOAs) on managing fishing fleet capacity, the conservation and management of sharks, and the reduction of seabird bycatch in longline fisheries. Support also for the new FAO initiative addressing illegal, unregulated, and uncontrolled (IUU) fishing.

Aquaculture

Technical Committee: Focus on mollusks, as well as protocols and regulations for identifying, monitoring, and dealing with aquatic animal health issues in the proposed Binational Technical Aquaculture Committee. Exchange data regarding risk assessment work being conducted on net pen farms.

Atmosphere:

In collaboration with the Direccion Meteorologica de Chile, NOAA takes samples on Easter Island and analyzes them as part of a global carbon cycle study.

Data (National Environmental Satellite, Data, and Information Services (NESDIS)):

GEOS: NOAA/NESDIS' geostationary satellite (GEOS) has a Data Collection System (DCS) which is a space-based relay system used to collect, process, and distribute environmental measurements from fixed earth-based data collection platforms. These platforms are low cost

and low maintenance, thus making them ideal to be placed in remote locations and left to operate with minimal human intervention. Applications supported by the DCS included flood monitoring, fire management, seismic monitoring, water resource management and oceanographic/meteorological monitoring.

Chile has a number of ground receiving stations and fully and freely receives data transmitted directly from NOAA/NESDIS' geostationary and polar-orbiting environmental satellites. The Chilean National Weather Service and the Chilean Hydrologic Service are approved GEOS DCS users that collect environmental data that are critical to their weather and flood forecasting programs. In addition, the Chilean Navy also collects environmental information for tsunami warnings to support activities of the U.S. Pacific Tsunami Warning Center and for research into environmental phenomena such as El Niño.

ARGOS Data Collection System: The Argos Data Collection System (DCS) is part of GEOS system and is used to collect, process, and distribute environmental data from mostly mobile earth-based data collection platforms. The inclusion of the Argos system aboard the moving polar-orbiting satellites allows for the benefits of worldwide coverage and the ability to determine location of the data collection platform by using Doppler shift calculations. This positioning capability provides critical location data for applications such as monitoring drifting ocean buoys, studying wildlife migration paths and allowing resource managers to study the exploitation of fish stocks through vessel monitoring systems.

The Chilean Antarctic Institute, as an approved Argos DCS user, collects weather data in the vicinity of the Antarctic peninsula in support of its global climate monitoring program. In addition, several Chilean fishing vessels are using the Argos system as part of a vessel monitoring system implemented by the Chilean Ministry of Economy and Reconstruction in support of their fisheries resource management program.

Hydrographic Co-operation: NOAA/NESDIS' Marine Geology and Geophysics Division also serves as a World Data Center for Marine Geology and Geophysics. It provides the Chilean Hydrographic Office with both the NOAA National Ocean Service Hydrographic Data Base and the Trackline Geophysical Data of the World Data Base as the International Hydrographic Organization Data Center for Digital Bathymetry (IHO DCDB) and as a cooperative effort under the General Bathymetric Chart of the Oceans (GEBCO). In addition, NOAA's National Geophysical Data Center (NGDC) has supported (with US\$5,000) the establishment of an Intergovernmental Oceanographic Commission (IOC) Regional Mapping Project for the Southeast Pacific Ocean, the International Bathymetric Chart of the South East Pacific (IBCSEP) with an inaugural editorial board meeting scheduled for Valparaiso, Chile this coming fall.

Multilateral Activities

NESDIS cooperates with the Chilean Air Force under the satellite-assisted search and rescue program, COSPAS-SARSAT. NESDIS satellites can detect signals transmitted by beacons to locate aviators, mariners and land-based users in distress as part of its U.S. Search and Rescue

Satellite Aided Tracking (SARSAT) Program. Presently, the SARSAT Program works cooperatively with over 30 countries, including the Chilean Air Force, as part of the International COSPAS-SARSAT Program.

NESDIS and Chile have interacted under the auspices of the International Council of Scientific Unions (ICSU), World Data Center (WDC) system. Pursuant to responsibilities under the WDC for Paleoclimatology, NGDC does some research on paleoclimate with several institutions, however, there are ongoing informal scientific collaborations with scientists in Chile. There are no MOUs, formal agreements or any joint publications to date.

MOUS and Formal Agreements

NOAA/NESDIS' MOU with Chile provides various Chilean agencies access to the Geostationary Operational Environmental Satellites (GOES) and the Polar-Orbiting Environmental Satellites (POES) to transmit data.

Environmental Technologies

Chile Environmental Technologies Export Market Report

This report provides a detailed overview of the Chilean environmental market, current statistical information, key environmental laws and regulations and key contacts in the country.

Market Development Cooperator Grant Program: Institute of the Americas

The Department of Commerce awarded the 2001-2002 Institute of the Americas grant to identify areas in which U.S. industry could help address Latin America's water infrastructure goals, including Chile's.

Solid, Hazardous, and Medical Waste Management Technology Transfer Technical Seminar

In August 2001, the Department of Commerce sponsored a seminar entitled "Solid Waste Management: The Experience in Chile and the United States" in Santiago. Three U.S. companies (Sanitec, C&S Engineers, and EarthTech) gave presentations about different waste treatment options to approximately 200 Chilean business and government professionals. The seminar objective was to introduce U.S. solid waste technologies and companies to the Chilean waste management sector and facilitate partnerships.

Recent U.S. Trade Missions to Chile

Then Pennsylvania Governor Ridge led the largest-ever Pennsylvania trade mission in early December 2000 to Brazil, Argentina and Chile. Environment was a key sector of the mission and six of the 40 companies represented were environmental firms. Pennsylvania Department of Environmental Protection Deputy Secretary Barkanic led discussions on pollution prevention, air and water quality protection and energy efficiency with government and business leaders. Pennsylvania initiated a cooperation agreement with the Chilean Environment Association. The U.S. Department of Commerce helped facilitate the mission.

Reverse Trade Missions to the United States

In April 1998, Chile's Minister of Economy accompanied a large delegation of Chilean environmental project sponsors and officials to Washington, D.C. The delegation attended a government briefing on the environmental opportunities in Chile. Then Commerce Secretary Daley hosted the delegation, U.S. industry representatives and trade associations for a working breakfast which helped to bring potential U.S. suppliers together with Chilean decision-makers who represent more than \$1 billion worth of projects in the water sector. This mission was a follow-up to a May 1997 trade mission to Chile, in which the environmental sector and closer environmental cooperation was emphasized.

"The Chile - U.S. Environmental Exchange Focusing on the Mining Industry" took place in Denver, CO, September 1998. The event was organized by the Department of Commerce, the Chilean Embassy, the Environmental Export Council and the Colorado Environmental Business Alliance. Six Chilean mining officials received a three-day series of seminars and technical presentations, site visits, and matchmaking meetings to highlight environmentally sound management practices, resource use efficiency, pollution prevention, and treatment processes related to the mining sector.

Trade Show Promotion

The U.S. Commercial Service in Santiago promotes the biennial AGUAEXPO LATINOAMERICANA trade show in Santiago. This next show will be July 2-5, 2003 and will be attended by leading companies in various water sub-sectors from throughout the Americas. Over 150 exhibitors and 12,000 attendees are expected for the show.

Metals and Mining

Nonferrous Metals Consultative Forum on Sustainable Development

The International Copper Study Group (Chile and the United States are members) in cooperation with the International Lead and Zinc Study Group (the United States is a member) and the International Nickel Study Group are jointly undertaking an effort to assess and enhance the contributions that nonferrous metals make to sustainable development. Three Working Groups have been established to address different sustainable development issues. Metals Division staff co-chair the Working Group on Production. As mining is a key component of the Chilean economy, and Chile is the world's largest copper producer, Commerce officials have been working closely with the Chilean government (Chilean Copper Commission (Cochilco) and the Ministry of Mining) to accomplish the objectives of the Working Group. The current focus is on developing a product stewardship scheme for the environmentally sound management of metals and metal containing products.

APEC Group of Experts on Mineral and Energy Exploration and Development (GEMEED)

Per GEMEED's Terms of Reference, a major objective of the group is to "enhance the contribution of mineral and energy resources to sustainable development, through the promotion of environmentally and socially acceptable development practices (Best Available Practices).

Chile has assumed a high profile in this group, and the Chilean Ministry of Mines has been serving as the Secretariat of the group since its inception in 1995. Metals Division staff have worked closely with the Chilean Ministry of Mines in furthering the objectives of GEMEED. In October 2000, with the sponsorship of the National Mining Association, the Department hosted a GEMEED meeting in Las Vegas to coincide with the Association's quadrennial MINExpo exhibition and conference, as well as a meeting and workshop on indigenous peoples and local communities in Alaska in 2002. Currently, staff are working with the Chileans regarding their efforts to host a GEMEED ministerial in Santiago, Chile in May 2004.

Mines Ministries of the Americas (CAMMA)

Per the Declaration of Arequipa (2nd CAMMA meeting), the group has agreed, inter alia, to specifically work on “a common approach to policies on sustainable development.” In the Declaration of Buenos Aires (3rd CAMMA meeting), Ministers acknowledged that “the mining, minerals and metals industry contribute to sustainable development and play a fundamental role in the economic and social development of our countries.” The Seventh CAMMA Summit of Ministers will take place in Quito, Ecuador in November 2003. The principal emphasis of the group continues to be sustainable development. Staff have been working with Chile to further the objectives of CAMMA, especially regarding attempts to coordinate the sustainable development work of CAMMA with that of the Nonferrous Metals Consultative Forum on Sustainable Development and GEMEED. Chile was instrumental in establishing CAMMA, hosting the initial meeting in 1996.

U.S. Department of Agriculture (USDA)

The International Cooperation and Development Division (ICD) of the Foreign Agriculture Service (FAS) has the following three programs in Chile as part of its Scientific Cooperation and Research Programs:

- Discovery and Evaluation of Entomopathogenic Nematodes in Chile. The program was established 1997 and is ongoing. The program is associated with Rutgers University.
- Harvesting, Transporting and Storing of Radiata Pine Logs in Chile to Minimize Movement of Scolytids, Hylastes, Ater and Hylurgus Ligniperda to Ports of Embarkation. The program was established in 1999 in cooperation with the University of Washington and is ongoing.
- Microbiologically Safe Foods By Hydrostatic Pressure Technology. The program was established in 2000 in cooperation with Oregon State University and is ongoing.

The Animal and Plant Health Inspection Service (APHIS) has three bilateral technical activities/agreements with its Chilean counterpart, the Agriculture and Livestock Service (SAG).

- Memorandum of Cooperation (MOC) between APHIS and SAG on Cooperation on

Animal and Plant Health issues. The MOC was signed on August 7, 1998. The purpose of the MOC is to further technical cooperation on plant and animal health protection issues and aims to prevent the spread of plant and animal pests and diseases via bilateral trade. The agreement stresses the usefulness of timely exchange of technical and scientific information that promotes greater understanding of the status of pests and diseases in each country, especially those affecting commodities for trade. There is no term limit; however, either party can terminate this agreement by giving six months notice.

- Technical/Sanitary and Phytosanitary Issues Working Group, under the U.S.-Chile Consultative Committee on Agriculture (CCA), signed April 23, 1998. The purpose of the agreement is to provide a forum to facilitate discussions on sanitary and phytosanitary (SPS) principles and measures relating to and affecting bilateral trade. The scope of this working group is limited to sharing and exchanging technical information and is not a venue for technical regulatory negotiations and decision-making. The group is intended to be a forum for sharing ideas regarding international standard-setting activities and other multilateral issues relating to SPS. There is no term limit, however either party can terminate this agreement if granted approval to do so by the CCA, which is headed by the U.S. Secretary of Agriculture and the Chilean Minister of Agriculture.
- Memorandum of Understanding between the Ministry of Economic Development, National Fisheries Services (SERNAPESCA) and the USDA/APHIS, signed February 8, 2001. The purpose of this agreement is to establish the terms of the working relations for the recognition of aquatic animal health systems and the sharing of information on aquatic health between USDA/APHIS and SERNAPESCA. In short, the aim of this agreement is to provide the basis for the importing requirements for U.S. fish eggs to Chile. The term limit on this agreement is one year, or either party can terminate the agreement 90 days following the receipt of written notification to that effect.

The Forest Service and Chile work cooperatively under the Montreal Process Criteria and Indicators (C&I) for sustainable management and conservation of temperate and boreal forests. The Montreal Process is a 12-country initiative that grew out of the 1992 United Nations Conference on Environment and Development in Rio de Janeiro, Brazil:

- The declaration of commitment to the final draft of seven criteria and 67 indicators was signed in Santiago in 1995.
- Chile, with cooperation and support from the United States, has committed to the coordination of C&I developments with its regional partners Uruguay and Argentina. These efforts will improve national-level policy and decision-making capacities to implement monitoring and assessment strategies of forest resources with regards to, *inter alia*, trade and environment relationships.
- Chile participated in the U.S.-hosted workshop of the Technical Advisory Committee for

the Montreal Process in Portland, Oregon in 2002. Chile and the other members of the Montreal Process will produce national reports in 2003 on the status of C&I implementation in their countries.

- Chile and the U.S. Forest Service are involved in a cooperative process to improve monitoring and inventory systems of forest resources by implementing scientific survey and statistical methodologies. These efforts will contribute to increased capacity and effectiveness in Chile for enforcement and regulation in the forestry sector.

U.S. Department of State

Activities

- The U.S. Embassy in Chile provides direct assistance to the government of Chile in its environmental protection efforts. For example, the embassy sponsored and organized a visit to abandoned copper mining works sites in Reno, Nevada and Arizona for two CONAMA representatives. This technical assistance visit demonstrated site cleanup techniques for small and medium abandoned mining works.
- The Bureau of Oceans and International Environmental & Scientific Affairs, in collaboration with the U.S. Fish and Wildlife Service, will sponsor a workshop to develop a strategy to improve conservation of migratory species in the Western Hemisphere. This project, developed in response to the Plan of Action from the 2001 Summit of the Americas, expects to raise awareness of the challenges of conservation of migratory species, facilitate the identification of regional priorities, and promote regional cooperation. The workshop will be held in early October 2003 in conjunction with the seventh Neotropical Ornithological Congress in Puerto Varas, Chile.

Agreements

Scientific and Technical Cooperation

- Basic Agreement Relating To Scientific and Technological (S&T) Cooperation Between the Government of the United States of America and the Government of the Republic of Chile, signed in 1992. The U.S.-Chile S&T Agreement was signed on May 14, 1992, entered into force January 19, 1994, and was renewed in 1999 for a term of five years. The joint cooperative activities contemplated include: exchanges of scientific and technical information; exchanges of scientists, technicians, and experts; convening joint seminars and meetings; conducting joint research projects; and other forms of cooperation as mutually agreed. The Parties may also facilitate the development of direct contacts and cooperation between government agencies, universities, and other institutions under the “umbrella” of the S&T Agreement. The Agreement establishes a Joint Committee to coordinate and review cooperative activities, which meets every two years.

- Memorandum of Understanding Between the U.S. Geological Survey and Chile's Nuclear Energy Commission Concerning Scientific and Technical Cooperation in the Earth Sciences, signed in 1994. Forms of cooperation under this MOU may consist of exchanges of technical information, visits, and cooperative research consistent with ongoing programs of the Parties. Scientific areas of cooperation may include the development of chemical rock standards, standardization of laboratory procedures to ensure international standards, participation in intra-laboratory comparisons, and maintenance of laboratory equipment.
- Agreement for the Establishment of a Cooperative Biomedical Research Program Between the U.S. National Institutes of Health and Chile's National Commission for Scientific and Technological Research, signed April 30, 1997. This Agreement provides a framework for the exchange of scientists and the support of cooperative biomedical and behavioral research and training. Cooperative activities may include: the exchange of scientific publications, information, and data pertinent to the development and implementation of joint research; promotion and conduct of collaborative research and exchange visits; advanced research training; exchange, loan, and provision of samples, materials, equipment, instruments, and components for testing, evaluation, and other purposes related to cooperative activities; and organization of joint conferences and seminars.

Environmental Cooperation

- Agreement Between the U.S. NOAA and Chile's Ministry of Education for Cooperation in the GLOBE Program, signed April 16, 1998. The GLOBE Program is an international environmental science and education program that brings students, teachers, and scientists together to study the global environment. GLOBE has created an international network of students at primary, middle and secondary school levels studying environmental issues, making environmental measurements, and sharing useful environmental data with one another and the international science community.
- Memorandum of Intent on Cooperation in Environmental Matters Between the Government of the Republic of Chile and the Government of the United States of America, signed October 19, 1999. This MOI expresses the intent of both governments to occasionally hold consultations and information meetings to discuss subjects of interest relating to the environment, including, inter alia, forestry, the marine environment, and global climate change. The first of these meetings, entitled the U.S.-Chile Environmental Policy Dialogue, was held in Santiago, Chile on October 9, 2002.

Economic Assistance

- Enterprise for the Americas Initiative (EIA), signed June 30, 1993. Seeking to implement the EIA and follow up on several debt reduction agreements, the U.S. and Chile established an Americas Fund and Administering Board to promote activities to preserve, protect, or manage Chile's natural and biological resources in an environmentally sound

and sustainable manner, while encouraging the improvement of disadvantaged communities in Chile. The Agreement superseded a 1992 agreement between the Parties that had established an Enterprise for the Americas Environmental Fund and Environmental Board.

- The 11-member Board is comprised of one U.S. and four Chilean government representatives and six representatives from Chilean environmental and local community development, NGO, scientific and academic bodies. The Board is responsible for the management and administration of the program and monitoring and oversight of the grant activities funded. The Board issues an annual report on the activities funded during the program year. In determining which projects shall receive grants from the Fund, the Board gives priority to projects that are managed by NGOs and that involve local communities in their planning and execution.

U.S. Agency for International Development (USAID)

The U.S. Agency for International Development (USAID) and its predecessor agencies provided over \$2.5 billion to Chile for development projects between 1943 and 1996, when the USAID Mission in Chile closed. In the 1990s, USAID focused on programs in environment and democracy. In the area of environment, USAID assistance helped the Government of Chile to create its first national environmental agency (CONAMA), draft and enact new environmental legislation and develop enforcement capacity. Efforts to reduce industrial pollution in Santiago resulted in substantially reduced heavy metals emissions, more efficient water use and immediate savings of over \$3 million by industries involved in the program. A recent evaluation of the pollution prevention program confirmed the success and sustainability of the program.

Most recently, as part of the Latin America and Caribbean Bureau's Hemispheric Free Trade Expansion project, a forum was established to discuss and identify policy, institutional and governance reforms in Latin America that can ensure that export industries yield positive benefits net of environmental impacts. (see <http://www.cipma.cl/hyperforum/>) The first phase, which was completed in May 1999, was dedicated to the establishment of a new methodology (domestic resource cost analysis) in the context of trade-environment assessments and the application of this method in a preliminary way to three Chilean export sectors (forestry (pulp), fisheries (fishmeal), and mining (refined copper)). The second phase of the activity, which is being funded by the International Development Research Centre, is focusing on measuring the environmental impacts of copper mining in Chile, Bolivia and Peru, and using that information to set priorities for data gathering, environmental monitoring, and reforms in legal, regulatory, enforcement and public policy. This collaborative study is led by the Centro de Investigación y Planificación del Medio Ambiente (CIPMA).

Cooperation with State Governments

CONAMA and the Washington State Department of Ecology plan to sign a “declaration of intentions” forming an ongoing expert exchange to develop policy and management strategies for decontamination of lakes in Washington State and Chile. The Chilean Embassy in Washington, DC sponsors this project, which, to date, has sent two U.S. experts to Chile and two Chilean experts to Washington state.

ANNEX III

Selected Multilateral and Regional Environmental Agreements to which the Government of Chile is a Party

Conservation of Biodiversity

International Convention for the Protection of New Varieties of Plants (as Amended)
Convention on Biological Diversity
Madrid Protocol on Environmental Protection to the Antarctic Treaty
International Plant Protection Convention (Revised Text)
Framework of the Food and Agriculture Organization of the United Nations
Constitution of the Food and Agriculture Organization of the United Nations
Convention on the Conservation of Migratory Species of Wild Animals
Agreed Measures for the Conservation of Antarctic Fauna and Flora
The Antarctic Treaty
Convention Concerning the Protection of the World Cultural and Natural Heritage
Convention on International Trade in Endangered Species of Wild Fauna and Flora
Convention on Nature Protection and Wild Life Preservation in the Western Hemisphere
The Cartagena Protocol on Biosafety

Desertification

International Convention to Combat Desertification in Those Countries Experiencing Serious Drought and/or Desertification, particularly in Africa

Hazardous Waste

Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal

Global Climate Change

Framework Convention on Climate Change

Stratospheric Ozone Depletion

Montreal Protocol on Substances that Deplete the Ozone Layer and Amendments
Vienna Convention for the Protection of the Ozone Layer

Shipping

International Convention Relating to Intervention on the High Seas in Cases of Oil Pollution Casualties
Protocol relating to Intervention on the High Seas in Cases of Pollution by Substances other than Oil
International Convention for the Prevention of Pollution from Ships (as modified)
International Convention for the Prevention of Pollution from Ships
International Convention for the Prevention of Pollution of the Sea by Oil (as amended)
International Convention on Civil Liability for Oil Pollution Damage
Convention on the International Maritime Organization

Oceans and Their Living Resources

Agreement Relating to the Implementation of Part XI of the United Nations Convention on the Law of the Sea of 10 December 1982

Convention on Wetlands of International Importance Especially as Waterfowl Habitat and Amendments to Articles 6 and 7 of the Convention

Protocol II to the Convention for the Prohibition of Fishing with Long Driftnets in the South Pacific

Convention of the Law of the Sea

Protocol to the International Convention for the Regulation of Whaling

Protocol for the Protection of South East Pacific against Pollution from Land Based Sources

Convention for the Protection of the Marine Environment and Coastal Area of the South East Pacific

Convention on the Conservation of Antarctic Marine Living Resources

Convention for the Conservation of Antarctic Seals

International Convention for the Regulation of Whaling

Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter and Amendments to the Annexes

Pesticides and Chemicals

The Stockholm Convention on Persistent Organic Pollutants (not yet in force)

The Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade (not yet in force)

ANNEX IV

Responses to the Draft Environmental Review of the U.S.-Chile FTA

State of Alaska, Office of the Governor

American Lands Alliance, Ancient Forest International, Asia Pacific Environmental Exchange, Coast Range Association, Greater Kansas City Fair Trade Coalition, Klamath Forest Alliance, The Edmonds Institute, Native Forest Network, Siskiyou Project, and Southern California Conference of Social Justice Coordinators

American Lands Alliance, Center for International Environmental Law, Consumer's Choice Council, Defenders of Wildlife, Earthjustice, Friends of the Earth, National Wildlife Federation, Natural Resources Defense Council, Pacific Environment, Sierra Club, and World Wildlife Fund

John Bullock, Attorney

Centro Austral de Derecho Ambiental

CORMA, the Chilean Timber Association

Corporacion Chilena de la Madera A.G.

Emergency Committee for American Trade

Global Development and Environment Institute, Tufts University and
Center for Planning and Research on the Environment

Humane Society of the United States and Humane Society International

Senator Sheila Kuehl, State of California

National Association of Manufacturers

United Fisherman of Alaska

United States Council for International Business