



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

Pursuant to section 2103(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.-Singapore 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.-Singapore Free Trade Agreement as required under section 2102(c)(4) of the Trade Act of 2002 (Trade Act).¹

Context

Singapore is one of the United States' most important trading partners in Asia. The Administration and the Government of Singapore (GOS) announced their intent to enter into negotiations for a free trade agreement (FTA) in November 2000, with the goal of developing a comprehensive, state-of-the-art agreement. Negotiations were launched in December 2000 and completed in early 2003. In August 2002, during the course of the negotiations, Congress enacted the Trade Act.

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. Guidelines, Section III.A.1, 65 Fed. Reg. at 79,444.

A Draft Environmental Review, prepared and released during the course of negotiations, provides policymakers and negotiators with information concerning potentially significant environmental issues and seeks public comment to inform the development of negotiating positions. A Final Environmental Review, released after the trade agreement is concluded,

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). 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. section 1872), is the principal staff-level mechanism for interagency decisionmaking 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).

describes the environmental review process and the Administration's conclusions regarding the agreement's potential environmental impacts.

The Administration released a Draft Environmental Review of the Singapore FTA (available at www.ustr.gov/environment/environmental.shtml) shortly after the enactment of the Trade Act, and requested public views to inform the development of Administration positions in light of the objectives set out in the Act. *See* 67 Fed. Reg. 53,035 (Aug. 14, 2002). The Administration took public comments on the Draft Environmental Review into account, along with the views received through other means of public outreach, and presented negotiating proposals to Singapore in late 2002. The Administration delayed tabling negotiating proposals with Singapore in several areas, including the Environment Chapter, environment-related aspects of dispute settlement, and certain aspects of the Investment Chapter, until after passage of the Trade Act.

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 a public hearing, the advice of relevant advisory committees, including the Trade and Environment Policy Advisory Committee (TEPAC), and relevant published economic analysis. 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 impacts are concentrated regionally or sectorally 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 nevertheless identified, early in the negotiations, several environmental issues that warranted further consideration. In identifying and analyzing these issues, the Administration drew in considerable part on public comments and TEPAC advice, as well as on expertise within federal agencies and information provided by Singapore. Singapore is a major transit center for goods, including endangered species and other environmentally sensitive trade. We concluded that the FTA is not likely to have a significant impact on bilateral trade in such goods. However, the FTA provisions on customs administration and enforcement cooperation should enhance the two countries' ability to cooperate in enforcing their respective laws governing illegal trade.
3. In addition, the Administration considered the potential of the FTA to promote the spread 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, and a small to moderate positive environmental impact in Singapore and the surrounding Southeast Asia region.

4. In considering 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, the Administration focused in particular on the provisions of the FTA's Environment Chapter and related dispute settlement provisions. We concluded that these and related FTA provisions should have positive implications for the enforcement of environmental laws and the furtherance of environmental protection in both the United States and Singapore.

The Environment Chapter includes core commitments by each Party concerning effective enforcement of its environmental laws, high levels of environmental protection, and not weakening environmental laws to encourage trade or attract investment. The Chapter also establishes a robust consultative mechanism for implementing the environmental provisions, including elements covering transparency, opportunities for public involvement, and the pursuit of environmental cooperative activities. If either Party fails to implement the obligation to effectively enforce its environmental laws through a sustained and recurring course of action or inaction, in a manner affecting trade between the Parties, the other Party can seek compliance through innovative dispute settlement procedures, including the use of either monetary assessments or trade remedies.

5. The Administration also examined the provisions of the Investment Chapter in light of the 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. Consistent with the relevant provisions of the Trade Act, the FTA's investment provisions incorporate a number of clarifications and improvements from previous investment treaties. These provisions provide greater clarity to the substantive investment obligations, significantly increase the transparency of the procedures for arbitrating investor claims, and help assure that arbitral tribunals will interpret the investment provisions in accordance with the Parties' intent.

6. Finally, the United States and Singapore have participated in recent years in a number of cooperative activities aimed at addressing significant environmental issues in Southeast Asia. In association with the FTA, the United States and the GOS have recently completed negotiation on a Memorandum of Intent on Cooperation in Environmental Matters. The Memorandum of Intent will provide a framework for the two countries to build on previous efforts and address future cooperation priorities (including those identified by our respective environmental reviews).

II. LEGAL AND POLICY FRAMEWORK

A. The Trade Act of 2002

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

Overall environment-related trade negotiating objectives include:

- (1) 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)); and
- (2) 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)).

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

- (1) 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 (sections 2102(b)(11)(A)&(B));
- (2) to strengthen the capacity of U.S. trading partners to protect the environment through the promotion of sustainable development (section 2102(b)(11)(D));
- (3) to reduce or eliminate government practices or policies that unduly threaten sustainable development (section 2102(b)(11)(E));
- (4) 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)); and
- (5) 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)).

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

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

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

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

B. The Environmental Review Process

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

The purpose of environmental reviews is to ensure that policymakers 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 Order and Guidelines. USTR, through the TPSC, 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. A final written review is prepared as soon as feasible after negotiations are concluded.

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, however, 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 impacts in the United States, although global and transboundary impacts may be considered as appropriate and prudent.

The Guidelines recognize that reviews are a process, not just a written document. 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 account of the dynamic nature of trade negotiations and the sensitivity of interactions with other countries. In that context, written documents are an important means of informing the negotiations, memorializing the review process, and explaining the rationale for the conclusions reached, as well as of informing the negotiating process. *See* Guidelines, Sections III & VII, 65 Fed. Reg. at 79,444-45, 79,447.

Where significant regulatory and/or economically driven impacts have been identified in the review, information concerning those impacts will be provided to negotiators and decisionmakers throughout the government, and the review will analyze 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 those 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.-SINGAPORE FTA

A. Relevant FTA Provisions

The U.S.-Singapore FTA is the first comprehensive U.S. FTA with any Asian nation, and is expected to serve as a vanguard for trade liberalization, regulatory reform, and transparency in the region. The FTA should provide significant commercial benefits, in particular for companies in the “new economy.” Most tariffs on trade in goods originating in the two countries will be eliminated immediately, with remaining tariffs phased out over three to ten years. In addition, the FTA will significantly improve market access opportunities in the service sector by removing Singapore’s restrictions on a wide range of services, including high technology and professional services sectors such as engineering, medical, information technology, environmental, legal, financial, and distribution services. The FTA also provides explicit guarantees for electronic commerce and digital products, important protections for U.S. investors, enhanced protection for intellectual property, and firm commitments to combat illegal transshipments of all traded goods.

The FTA consists of a preamble and the following 21 chapters and associated annexes: establishment of a Free Trade Area and definitions; national treatment and market access for goods; rules of origin; customs administration; textiles; technical barriers to trade; safeguards; cross border trade in services; telecommunications; financial services; temporary entry of personnel; competition policy; government procurement; electronic commerce; investment;

intellectual property; labor; environment; transparency; administrative and institutional arrangements (including dispute settlement procedures); and general provisions (including general exceptions). The complete text of the FTA and summary fact sheets are available on USTR's website at www.ustr.gov.

Following is a summary of the FTA provisions most relevant to this environmental review.

Preamble

The preamble contains two environment-related provisions: (1) a provision recognizing the goal of sustainable development and the role that trade liberalization can play in achieving it; and (2) a reaffirmation of the importance of achieving the goals of the FTA in a manner consistent with the protection and enhancement of the environment, including through regional environmental cooperative activities and implementation of multilateral environmental agreements (MEAs) to which both Singapore and the United States are parties.

National Treatment and Market Access for Goods (Chapter 2)

The FTA provides for the elimination of bilateral duties on goods, with the majority of U.S. tariff lines going to zero upon effectiveness of the agreement. Singapore will legally bind all tariffs immediately at zero.

Rules of Origin, Customs Administration and Enforcement Cooperation Regarding Import and Export Restrictions (Chapters 3 and 4)

The FTA provides clear, simple, and enforceable rules of origin to ensure that only eligible products from the FTA Parties receive preferential tariff treatment. The FTA also contains a number of innovative provisions concerning customs administration and information sharing, including provisions that promote the implementation of risk management systems to focus customs inspection activities on high risk goods. Provisions of particular relevance for enforcement of U.S. environmental laws include a provision on cooperation to achieve compliance with the Parties' respective laws or regulations regarding restrictions and prohibitions on imports or exports (such as endangered species and other environmentally sensitive trade) and a provision for sharing information to combat illegal goods trade.

Technical Barriers to Trade (Chapter 6)

The FTA includes an enhanced co-operation program to exchange information on subjects covered by the WTO Agreement on Technical Barriers to Trade (WTO TBT Agreement), which addresses technical regulations, standards, and conformity assessment procedures.

Services (Chapter 8 and related provisions)

The FTA's core obligations regarding services are modeled on obligations and concepts in the WTO General Agreement on Trade in Services (GATS), the North American Free Trade Agreement (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 providing for 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.

FTA disciplines will now apply across a broad range of services sectors in Singapore (*see* USTR Fact Sheet, December 16, 2002, at www.ustr.gov). As a result, U.S. service suppliers are afforded substantially improved market access opportunities in Singapore, with some exceptions reflecting areas of sensitivity for Singapore.

Government Procurement (Chapter 13)

The FTA's Government Procurement Chapter builds on the existing commitments in the WTO Government Procurement Agreement (GPA), which ensures non-discrimination, transparency, predictability, and accountability in the government procurement process and provides appropriate reciprocal, competitive government procurement opportunities to U.S. suppliers in Singapore'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.

Investment (Chapter 15)

The FTA's Investment Chapter contains standards found in other 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 exchanges of letters, 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 assure that arbitral tribunals properly interpret the FTA's investment provisions.

Environment (Chapter 18)

The FTA's Environment Chapter, in accordance with the Trade Act, includes a number of core obligations under which each Party agrees not to fail to effectively enforce its environmental laws through a sustained or recurring course of action or inaction in a manner affecting trade between them, to provide for high levels of environmental protection, and to not weaken environmental laws to encourage trade or attract investment. The FTA also includes articles on environmental cooperation, procedural guarantees (*e.g.*, commitments by each Party to provide certain basic remedies for violations of its environmental laws, and to provide appropriate public access to environmental enforcement proceedings), and a consultative mechanism for reviewing implementation of the Chapter. In accordance with the Trade Act, the effective enforcement provision is enforceable through the FTA's State-to-State dispute settlement provisions.

In furtherance of the provision on environmental cooperation, the U.S. Department of State has completed negotiation of a Memorandum of Intent on Cooperation in Environmental Matters with the Government of Singapore.

Transparency (Chapter 19)

The FTA's Transparency Chapter, modeled on the NAFTA, requires both Parties, to the extent possible, to publicize their laws and regulations applicable to subjects covered by the FTA in a manner that will allow interested persons to understand the applicable legal requirements and the basis for any decisions taken. Each Party also agrees that, where possible, it will publish proposals for such measures in advance and provide interested persons a reasonable opportunity to comment on them.

Dispute Settlement Procedures (Chapter 20)

The FTA sets out detailed provisions providing for speedy and impartial resolution of State-to-State disputes over the implementation of the FTA. In accordance with the Trade Act, 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 in a manner equivalent to the enforcement of other obligations. 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 contemplates backup mechanisms, such as an escrow account or other collection steps, 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.

Institutional Provisions (Chapter 20)

The U.S.-Singapore FTA establishes a Joint Committee composed of government officials to review the FTA's general functioning and consider specific matters related to its operation and implementation with respect to the environment, among other areas. Recognizing the importance of transparency and openness, the Parties reaffirm their respective practices of considering the views of members of the public in order to draw upon a broad range of perspectives in the FTA's implementation. The FTA also provides for the Joint Committee to consider the Parties' respective environmental reviews at its first meeting, with an opportunity for the public to provide views on the FTA's environmental effects.

Exceptions (Chapter 21)

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 GATT 1994, which provides an exception for measures necessary to secure compliance with laws or regulations that are not inconsistent with FTA (which could include measures to ensure compliance with environmental laws if such measures are consistent with the FTA).

B. Advisory Committee Reports

Pursuant to Trade Act requirements (section 2104(e)), advisory committees, including the TEPAC, submitted reports on the Singapore FTA to the President, USTR, and Congress, within 30 days after the President notified Congress of his intent to enter into the agreement. The advisory committees are required to assess whether the FTA achieves the applicable overall and principal negotiating objectives set forth in the Trade Act, and whether the FTA provides equity and reciprocity within the sectoral or functional area of the particular committee.

A majority of TEPAC members advised that the Singapore FTA meets the Trade Act's negotiating objectives with respect to the environment. The majority noted with satisfaction that environmental provisions are now integrated into the body of free trade agreements, helping to assure that environmental considerations will be taken into account in these agreements. With a few caveats, a majority also noted that the FTA's provisions on investment and dispute resolution are an improvement over those in the NAFTA. The majority expressed some concern that environmental cooperative activities might not be adequately funded. Some TEPAC

members expressed minority views on several matters, in particular regarding the FTA's investment provisions. One member expressed a view that the investment provisions unnecessarily weakened investors' rights, while other members concluded that the investment provisions were inadequate to protect our ability to regulate on environmental matters. The TEPAC report is available on USTR's website at www.ustr.gov.

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. We also took account of the fact that Singapore was conducting its own environmental review of the potential agreement. (Singapore's review is available at www.env.gov.sg.) Throughout the review process, the Administration 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.

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. *See* 65 Fed. Reg. 71,197 (Nov. 29, 2000); 65 Fed. Reg. 80,982 (Dec. 22, 2000) (extending public comment period). Because the negotiating schedule was extended beyond what was originally anticipated, the Administration provided a supplemental opportunity for public comments, *see* 67 Fed. Reg. 8833 (Feb. 26, 2002). We also held a public hearing to discuss issues raised in connection with the FTA, including environmental issues. *See* 67 Fed. Reg. 9349 (Feb. 28, 2002).²

In response to these opportunities relatively early in the negotiations, TEPAC and a number of public commentators identified several environmental issues in connection with the proposed FTA. In particular, they called the Administration's attention to Singapore's role as a significant transit center for environmentally sensitive trade: wildlife and wildlife products, including endangered species; ozone depleting substances; timber and wood products; and live fish for consumption and aquariums. The comments raised concerns that some of this trade may be in violation of commitments under relevant international agreements, e.g., the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) and the Montreal Protocol on Substances that Deplete the Ozone Layer (Montreal Protocol). Commentators also suggested that even "legal" trade of certain wildlife products should be examined to ensure that it is consistent with principles of sustainable development. In addition, some commentators raised concerns that the FTA could lead to increased ship and air traffic between the two countries, thereby increasing the potential for emissions of pollutants and for spills of hazardous cargoes.

² A list of the environment-related comments and testimony is provided in Annex III to the Draft Environmental Review.

Other comments focused on the potential environmental benefits of increased market access for cleaner, more efficient goods and, more significantly, services from the United States. These comments stressed Singapore's potential as a center for transmitting these goods and services throughout Southeast Asia.

Concerning possible impacts on U.S. environmental laws and regulations, several commentators urged the Administration to include core environmental obligations in the body of the trade agreement. Others contended that the FTA was not the proper forum for addressing environmental concerns. Some commentators also suggested that the FTA contain specific provisions reaffirming the two countries' obligations under multilateral environmental agreements to which they are both parties.

Some commentators also raised specific concerns with the proposed inclusion of an investment chapter in the FTA, particularly with regard to inclusion of a mechanism for investors to bring disputes with governments before arbitral tribunals ("investor-State mechanism") and the potential for investment concerns to override environmental protection. Other commentators stated that robust investment protection is essential to any FTA.

The Administration made its Draft Environmental Review of the proposed Singapore FTA available for public comment on August 14, 2002, with a request for comments by September 20, 2002 to ensure timely input into the negotiations. 67 Fed. Reg. 53,035. We received six comments (*see* Annex IV). Three comments addressed issues concerning investment generally, and were not specific to the Singapore FTA. Another comment, submitted by a TEPAC member, noted approvingly that the Draft Environmental Review showed the potential for significant economic benefits to both the United States and Singapore, with little or no environmental cost to the United States. Two comments, received toward the end of the negotiations, provided further information and views concerning Singapore-specific environmental issues discussed in the Draft Environmental Review, including trade in endangered species, ornamental fish, illegal logging, climate change impacts and energy, and toxics.

B. Scoping Process Regarding Economically-Driven 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." Guidelines, Section V.C.1, 65 Fed. Reg. at 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. As discussed below, *see* Section IV, we did not identify any such effects. However, we concluded that the issues raised in connection with wildlife, endangered species and other environmentally sensitive trade warranted closer scrutiny. We also selected the environmental technology sector for more in-depth review.

C. Scoping Process Regarding Regulatory Impacts

Concerning possible regulatory impacts (*see* Guidelines, Section V.B, 65 Fed. Reg. at 79,446), the Administration examined the United States' negotiating proposals for each chapter of the proposed agreement. In each case, we compared the proposals with current U.S. obligations that would prevail in the absence of the agreement. We also considered alternative approaches and relevant environmental analysis during the interagency process for developing the proposals. 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. The Administration also considered provisions affecting our ability to fulfill international obligations or participate in international cooperative fora.

The Administration found that many chapters of the FTA – *e.g.*, financial services, e-commerce, safeguards, competition -- did not raise significant environmental issues. Certain other trade obligations, such as those relating to technical barriers to trade (TBT) and sanitary and phytosanitary (SPS) measures, can have environmental significance. However, the TBT Chapter of the FTA does not alter the obligations to which the United States has agreed in the WTO TBT Agreement. The FTA does not include an SPS Chapter. Accordingly, the Administration concluded that these areas need not be addressed in the written review. Members of the public interested in a fuller discussion of these issues are referred to the Draft Environmental Review of the U.S.-Chile FTA (*see* <http://www.ustr.gov/environment/environmental.shtml> at 72-74). More information on the WTO SPS and TBT Agreements is also available in the GATT Uruguay Round Statement of Administrative Action (1994) and the Uruguay Round Report on Environmental Issues (1994).

We found that the environmental implications of the provisions on environment (along with associated provisions such as dispute settlement), investment, enforcement and information-sharing regarding customs and import-export laws, and services warranted some discussion in the written review. Accordingly, the Draft Environmental Review provided some discussion of those provisions that had been tabled with Singapore at the time the Draft was released (*i.e.*, services, customs enforcement and information-sharing). Because the FTA's core services provisions are similar to those in the GATS, the NAFTA, and other FTAs to which the United States is a party, the Administration concluded that it was not necessary to have a further discussion of the potential environmental regulatory impacts of the FTA's services provisions in this Final Environmental Review.³ *The regulatory implications of the FTA's environment, investment, and enforcement and information-sharing provisions are examined below.*

D. Scoping Process Regarding Global and Transboundary Impacts

Section 5(b) of the Order provides that “as a general matter, the focus of environmental reviews will be impacts in the United States,” but “[a]s appropriate and prudent, reviews may also

³ Comments received concerning the environmental implications of the current negotiations in the WTO regarding the GATS are being considered in the separate environmental review of WTO Doha Multilateral Trade Negotiations and Agenda. *See* 66 Fed. Reg. 20,846 (April 25, 2001), 67 Fed. Reg. 34,750 (May 15, 2002).

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. Guidelines, Section IV.B.5, 65 Fed. Reg. at 79,446.

In this review, in considering possible global and transboundary impacts, the Administration considered a number of factors, including Singapore’s decision to conduct a review of potential environmental effects within its region and the comments submitted by TEPAC, environmental NGOs, the business community, and other interested members of the public. As discussed above, see Section III.B, we concluded that the potential impacts of the FTA on wildlife, endangered species, and other environmentally sensitive trade should be examined in greater depth. This area has implications both within the United States (regarding enforcement of U.S. environmental laws) and for U.S. interests in the global environment. The review will also inform the Administration’s consideration of possible cooperative activities with Singapore, which are expected to have positive impacts in Singapore and the Southeast Asia region.

IV. POTENTIAL ECONOMIC IMPACTS OF THE FTA

A. Singapore’s Economy

Singapore is a city-state of approximately 4.2 million people, of which 785,000, or 19 percent, are foreigners. Located adjacent to one of the world’s busiest shipping lanes, its economy is heavily dependent on both imports and exports. Singapore’s total imports and exports exceed its Gross Domestic Product (GDP). Singapore reports that its GDP in 2002 was approximately \$87 billion (nearly 1 percent of U.S. GDP of 10.4 trillion), while its total trade (exports plus imports) was \$241 billion. Singapore’s GDP per capita in 2002 was \$20,887, whereas the GDP per capita in the United States was \$36,194. Singapore’s GDP growth rate has decelerated from the high annual rates seen from 1965-97, in part due to regional and global economic effects, but also due to the maturation of Singapore into a developed country. In 2001, real GDP declined 2 percent, but recovered in 2002 to show positive growth of 2.2 percent. Just over two-thirds of GDP is generated in the services sector.

Singapore is an open economy with long-standing policies designed to promote free trade and investment. It has an investment regime actively promoting foreign inflows of both human and financial capital, as well as virtually no applied tariffs. Singapore is a leading advocate of trade and investment liberalization in both the Association of Southeast Asian Nations (ASEAN) and the Asia-Pacific Economic Cooperation (APEC) fora. It is a regional hub for Asian trade, with more than 45 percent of its total exports consisting of re-exports of products from other countries. In 2002, its total exports (including re-exports) to the world totaled \$125 billion and its total imports measured \$116 billion. Singapore’s trade balance with the rest of the world (including re-exports to other countries) was a surplus of nearly \$9 billion in 2002.

B. Bilateral Trade and Investment

Singapore is currently the United States’ twelfth largest goods trading partner, with \$31 billion in two-way goods trade during 2002. U.S. goods exports to Singapore in 2002 were \$16.2 billion,

down 8.1 percent (\$1.4 billion) from 2001. U.S. exports to Singapore accounted for 2.3 percent of overall U.S. exports in 2002. The top U.S. export categories (2-digit HS) in 2002 were: machinery (\$4.2 billion); electrical machinery (\$3.8 billion); aircraft (\$2.8 billion); and optic and medical instruments (\$1.0 billion). Singapore was the United States' sixteenth largest source of imports in 2002. U.S. imports from Singapore totaled \$14.8 billion in 2002, a 1.4 percent decrease (\$207 million) from 2001. U.S. imports from Singapore accounted for 1.3 percent of overall U.S. imports in 2002. The five largest import categories in 2002 were: machinery (\$8.0 billion); electrical machinery (\$2.4 billion); organic chemicals (\$1.6 billion); special other, i.e., repaired products (\$921 million); and optic and medical instruments (\$756 million). The U.S. goods trade surplus with Singapore was \$1.4 billion in 2002, a \$2.8 billion swing from the \$1.4 billion trade deficit in 2000.

U.S. trade in services with Singapore (exports and imports) is 19 percent of the level of U.S. merchandise trade with Singapore. U.S. exports of private commercial services (i.e., excluding military and government) to Singapore were \$4.1 billion in 2001 (latest data available), 8.7 percent (\$391 million) less than 2000. Other private services, and royalties and licensing fee categories, accounted for most of U.S. exports in 2001. U.S. imports of private commercial services (i.e., excluding military and government) were \$2.0 billion in 2001 (latest data available), down 12.5 percent (\$287 million) from 2000. Other transportation, other private services, and tourism categories accounted for most of U.S. services imports from Singapore. The United States registered a services trade surplus of \$2.1 billion with Singapore in 2001.

The stock of U.S. foreign direct investment (FDI) in Singapore was \$27.3 billion in 2001 (latest data available), a 6.5 percent increase from 2000. U.S. direct investment in Singapore is primarily concentrated in the manufacturing, finance, and petroleum sectors. The stock of Singapore FDI in the United States was \$6.5 billion in 2001 (latest data available), down 16 percent from 2000. Singapore's FDI in the United States is reported in the Manufacturing and real estate sectors.

C. Barriers to Goods Trade

With the exception of four tariff lines covering beer and certain alcoholic beverages, Singapore imposes no tariffs on imported goods. However, for social and/or environmental reasons, Singapore levies high excise taxes on distilled spirits and wine, tobacco products, motor vehicles (all of which are imported), and gasoline. Singapore also maintains three export promotion programs available to both domestic and foreign firms. These are known as the Trade Incentives Program, the Double Taxation Deduction (to compensate for foreign taxation of corporate income), and the Production for Export Scheme. Singapore has notified the WTO that the Double Taxation Deduction will be phased out by 2003 and that it is no longer accepting applications for the Production for Export Scheme.

U.S. duties on imports from Singapore are less than 1 percent on average, with the preponderance of those duties falling on textiles and apparel. Imports of apparel from Singapore

are also subject to quotas that will be removed in 2005 under the WTO Agreement on Textiles and Clothing.

D. Potential Economy-Wide Impacts of the FTA

According to an independent study using the Michigan Model of World Production and Trade to predict economic effects of various free trade agreements, the Singapore FTA would boost global welfare by \$25.1 billion.⁴ *In absolute terms, most of this positive welfare effect would be enjoyed by the United States (\$17.5 billion, or 0.19 percent of GNP). Singapore's welfare would increase by \$2.5 billion (3.4 percent of GNP). Changes in the pattern and magnitude of trade attributable to the FTA will not have significant effects the 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.*

A second study using a number of computable general equilibrium (CGE) models predicts that a U.S.-Singapore FTA would result in an increase in Singapore's welfare equal to 0.7 percent of its GDP, with no detectable change in U.S. welfare as a percentage of U.S. GDP.⁵ (In contrast to a partial equilibrium approach, which looks at changes in a specific sector or sectors, a CGE model attempts to examine the interaction of the full range of markets and industries throughout an economy at a point in time.) Singaporean exports to the world would increase by 0.88 percent; U.S. exports to the world would increase by 0.17 percent; Singaporean imports from the world would increase by 0.92 percent; and U.S. imports from the world would rise by 0.16 percent.

E. Conclusions Regarding Economically-Driven Environmental Impacts

Although the economy of Singapore is substantial, the Administration determined that the impact on total U.S. goods imports, goods exports, or production would likely be relatively small, and therefore that the environmental impacts in the United States resulting from the changes in goods trade flows as a result of 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. While it is conceivable that there could be instances in which these or other environmental impacts could be concentrated regionally or sectorally in the United States, neither the public comments nor the Administration could identify any such instances. Singapore's environmental review addresses any potential impacts of the FTA in Singapore.

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>).

⁵ Robert Scollay and John P. Gilbert, "New Regional Trading Arrangements in the Asia Pacific," Institute for International Economics, Washington, D.C. (May 2001).

While liberalization of services could be expected to have greater economic impact, the Administration could not identify any environmentally sensitive sectors in the United States likely to be affected by such impacts. The United States already allows substantial access to foreign service providers, including in environmentally sensitive areas (e.g., tourism, maritime shipping, and services incidental to energy distribution). As a general matter, the U.S. market access commitments for the Singapore FTA do not go beyond access provided under the NAFTA or the GATS depending on the particular obligation. Further, Singapore 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.⁶

V. ADDITIONAL ECONOMICALLY-DRIVEN ENVIRONMENTAL IMPACTS SELECTED FOR REVIEW

While environmental impacts of predicted economic changes attributable to the FTA in the United States 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 Singapore. The analysis of these issues is described in greater detail in the Draft Environmental Review of the 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 Singapore.

A. Trade in Legally Protected Endangered Species

Public comments identified the possible effects of the U.S.-Singapore FTA on wildlife trade as an area of concern. Although Singapore has little native wildlife within its jurisdiction, it has been a significant wildlife consumer, importer, and re-exporter for decades, as well as one of several major transit points for wildlife moving to, from, and within Asia. Singapore also imports wildlife products from, and re-exports them to, the United States.

A core element of the legal framework for international trade in wildlife is CITES, a multilateral environmental agreement to which 160 countries, including both the United States and Singapore, are Parties. The Parties to CITES agree to cooperate to protect certain species of wild flora and fauna against over-exploitation through international trade.

⁶ For a fuller discussion of environmental services, *see* Section V.C.

Singapore became a Party to CITES in 1987 and enacted the Endangered Species (Import and Export) Act in 1989 as its domestic implementing legislation for CITES, in combination with the pre-existing Animals and Birds Act and the Control of Plants Act. At the March 2002 meeting of the CITES Standing Committee, the CITES Secretariat reported that Singapore had amended its laws so as to meet all CITES requirements. The United States became a Party to CITES in 1975 and implements it through the Endangered Species Act (ESA). For certain species, the United States has also enacted domestic measures that are stricter than those required by CITES. For further information concerning the legal framework and background on Singapore wildlife trade, see Draft Environmental Review (www.ustr.gov/environment/environmental.shtml) at 18-21).

During the negotiations, the Administration had extended discussions with the GOS concerning its system for monitoring and control of shipments of endangered species that were transshipped (*i.e.*, “through” transshipment, without a Singapore consignee) or in transit through Singapore. In particular, it was not clear whether Singapore’s legal authority to take enforcement action extended to shipments that were transshipped or in transit, as opposed to those that entered Singapore itself. We also examined U.S. authorities in this area and the manner in which transshipment is treated in the context of CITES (*see* Draft Environmental Review at 19-20). As a result of these discussions, the Parties exchanged information concerning their respective enforcement authorities over such shipments. The Parties concluded that such enforcement authorities were adequate and that no further measures were warranted. The issue is also discussed in the GOS Draft Environmental Review Report on the FTA (www.env.gov.sg, Section 5.2.3 at 35-36).

Illegal trade. Public comments raised concerns that illegally harvested and/or traded wildlife products -- including products traded in violation of CITES -- have moved into or through Singapore. In the late 1970s and early 1980s, for example, Singapore was a major transit point for rhino horn from East Africa, where poaching for horns has reduced rhino populations to dangerously low levels. Although there is evidence to suggest that Singapore has played a significant role in the illegal trade of wildlife due to its position as a transit country for Asia and as a consumer of wildlife, the Administration believes that increasing cooperation between Singapore and the United States helped result in a declining number of problems and more effective enforcement of the CITES commitments of both countries.

Potential Impacts of the FTA

Singaporean tariffs on all U.S. exports of wildlife products are already zero. Similarly, U.S. tariffs on Singaporean exports of wildlife products are generally at zero. Thus, the FTA’s tariff provisions are not expected to have a significant impact on bilateral trade in such products. While both the general problem of illegal wildlife trade and a specific solution are beyond the scope of the FTA, customs and information sharing provisions in Chapter 4 of the FTA are expected to contribute positively to U.S. and Singaporean efforts to improve the tools available for the two nations’ authorities to work cooperatively in enforcing their respective laws governing illegal trade in wildlife. *See* Section VI.C below. Moreover, the environmental cooperation framework associated with the FTA provides an opportunity for the United States to explore with Singapore further opportunities for cooperation in addressing illegal trade.

B. Other Environmentally Sensitive Trade

Ozone-Depleting Substances

As described in the Draft Environmental Review (www.ustr.gov/environment/environmental.shtml at 22), public comments raised concerns that ozone-depleting substances are being imported into Singapore and suggested that developed countries precluded from exporting newly produced chlorofluorocarbons (CFCs) under the Montreal Protocol may be sending them to Singapore to take advantage of Singapore's status as a "developing country" under Article 5 of the Protocol. Agencies on the TPSC with relevant expertise reviewed the situation in light of these comments, but did not receive sufficient or specific information to enable them to address the issue. The Draft Environmental Review encouraged the public to provide further comment and information. No comments were received.

We discussed this matter with the GOS, and the GOS has addressed it in its review of the U.S.-Singapore FTA. That review states that Singapore does not produce new CFCs and has banned the import of CFCs, so that concerns over the production and export of newly produced CFCs should not arise. GOS Draft Environmental Review Report (www.env.gov.sg, section 5.2.2 at 33-34). The GOS' review also notes that Singapore is no longer dependent on CFCs (having phased out the consumption of CFCs and other ozone-depleting substances ahead of the schedule for developing countries), and that there is thus little demand for used CFCs. *Id.* at 34. As with wildlife trade, both the customs and information sharing provisions of the FTA and the environmental cooperation framework associated with the FTA proved opportunities to explore cooperation with Singapore in addressing illegal trade in CFCs.

Illegal Logging

Public comments raised concerns that timber harvested illegally in other Asia-Pacific countries may be transshipped through Singapore. Illegal timber harvesting is receiving increasing international attention for its impact on the environment as well as on the economic and social benefits of forests at the local, regional, and global levels. While illegal logging is primarily an issue of domestic governance, international trade can play a role in stimulating, enabling, or rewarding illegal activities in a number of Asia-Pacific countries where illegal logging has been identified as a significant cause of deforestation.

The FTA is not expected to result in significant shifts in the pattern of timber trade through Singapore. Tariffs on wood products are already low and market access commitments under the FTA are expected to have little impact on direct U.S.-Singapore trade. Moreover, the FTA's rules of origin disciplines will ensure that the FTA does not affect U.S. imports of forest products originating elsewhere and transiting through Singapore.

In addition, the environmental cooperation framework associated with the FTA may serve as a vehicle for exploring options to strengthen the monitoring and control of transshipped and transit items. It should also be noted that other Administration activities are addressing the issue of illegal logging more comprehensively. *See* Draft Environmental Review (www.ustr.gov/environment/environmental.shtml at 23).

Ornamental Fish

Public comments expressed concern about ecologically destructive harvesting of ornamental marine fish (most of which are not protected by CITES) in Southeast Asia for the aquarium trade. While no such harvesting takes place in Singaporean waters, Singapore has been a major re-exporter of such fish from other Asian countries to the United States. Public comments also noted concerns associated with Live Reef Food Fish (LRFF).

The Administration examined these issues but could not identify any link to the FTA. Tariffs on ornamental fish in both the United States and Singapore are already zero; therefore, the FTA is not expected to have a direct impact on this trade. However, the FTA's information sharing provisions may assist the two countries in obtaining data on the trade, which will help them in efforts to assure the trade is sustainable. Further, concerning the LRFF issue, most LRFF are harvested from the Pacific islands, Australia, Southeast Asia and the Indian Ocean, and sent by air or boat directly to major markets. The United States is currently a very small market for LRFF, and very little of this trade is transshipped through Singapore, as the delay would increase mortality rates. We also note that the United States, along with other countries, is more appropriately addressing the LRFF issue through other cooperative mechanisms (*e.g.*, through APEC).

C. Environmental Technologies

Environmental technologies, *i.e.*, environmental goods and services, can improve citizens' 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 broad sector of environmental technologies includes the following sub-sectors: water and wastewater treatment; air pollution control; solid waste management; consulting; engineering and other related services; and hazardous and medical waste management. The functional areas for environmental technologies include pollution control, pollution prevention, monitoring and assessment, and remediation.

Singapore has had a robust environmental regulatory regime for over 30 years, which has led to a relatively high demand for environmental technologies during that period. *See* Annex I. Nonetheless, new environmental challenges may be on the horizon. For example, existing landfill sites are now nearing capacity and management of hazardous and toxic wastes is receiving increasing attention within the industrial zone.

Goods: In 2002, Singapore was the sixteenth largest source of U.S. imports of environmental goods, with a total value of \$277 million. U.S. tariffs on relevant products are minimal. The majority of environmental goods enter the United States duty free. For a few products, tariffs can range up to approximately 4 percent. Some medical refuse collection equipment, for example, has a tariff of 4.2 percent.

In 2002, Singapore was the ninth largest export destination for U.S. environmental goods. It has been a reliable market for environmental technologies. U.S. exports to Singapore in this sector increased from 1998 to 2002, ranging from \$581 million to as high as \$1 billion during this period. Water pumps and air filtration systems represented the largest portion of goods in this sector. Singapore's environmental market is expected to grow to \$5 billion within the next 10 years. U.S. environmental products account for more than 30 percent of Singapore's total environmental technologies imports. About 20 percent of these imports are re-exported, mainly to neighboring countries. Singapore is home to several U.S. environmental companies' Asia branch offices.

Singapore has zero tariffs on environmental goods, in particular for goods in Harmonized Tariff System (HTS) chapter 84, the core group of environmental goods. Tariffs also are zero on related environmental goods found in HTS chapters 85 and 90. Given the current absence of tariffs, FTA market access negotiations are unlikely to have a direct impact on U.S. exports in this sector. Therefore, the FTA's provisions regarding environmental goods are not likely to have a significant environmental impact in either country.

Services: Under the GATS, the United States already provides comprehensive market access in the key environmental service sectors. Accordingly, FTA negotiations are unlikely to have any substantial impact on the inflow of environmental services to the United States.

In the GATS, the GOS has made no sectoral commitments on environmental services as represented in the WTO classification of services. In the FTA, Singapore undertook full commitments for all environmental service modes, with a few reservations.⁷ *Further, in the medium to long-term, U.S. exports may be driven by procurement decisions by the GOS, which is expected to spend \$4 billion on environmental infrastructure projects within the next several years. The GOS has made additional procurement commitments in the FTA above and beyond its WTO commitments.*

*Overall, the GOS commitments in the environmental and allied professional services sectors (e.g., engineering, design) should afford it greater access to U.S. environmental technologies, and hence the potential for enhanced environmental protection due to lower costs, greater competition, and additional expertise and choice among technologies. Singapore has also expressed interest in joint environmental cooperation programs that may focus on environmental technology (see Section VII, *infra*). For all these reasons, the FTA's provisions regarding*

⁷ Those reservations concerned the collection, disposal and treatment of hazardous waste and wastewater (reflecting the GOS' desire for greater regulatory flexibility) and energy services.

environmental services should have a small to moderate positive environmental impact in Singapore and the surrounding region.⁸

VI. POTENTIAL ENVIRONMENTAL REGULATORY IMPACTS SELECTED FOR REVIEW

A. Environment and Related Provisions

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 (*e.g.*, the NAFTA, the U.S.-Jordan FTA). The environment 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

⁸ One commenter on the Draft Environmental Review expressed the view that the Administration was overly optimistic in its assessment of the potential implications of environmental goods and services liberalization. Specifically, the commenter suggested that Commerce Department programs may promote technologies that have adverse impacts on the environment and that could result in increased releases of persistent organic pollutants slated for minimization and ultimate elimination under multilateral environmental agreements. We investigated this claim and found no evidence that these programs favor one waste management technology over another. Further, we could not identify any inconsistency between liberalization of environmental goods and services and the United States' ability to comply with its obligations under international agreements.

procedures for the enforcement of such laws, both of which allow businesses and citizens to understand clearly 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 18.1); (2) an obligation not to fail to effectively enforce environmental laws through a sustained and 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 allocation of resources to other environmental resources considered to be a higher priority (Article 18.2.1); and (3) a commitment not to waive or otherwise derogate from environmental laws in order to attract trade or investment (Article 18.2.2).

As discussed previously, the effective enforcement obligation is enforceable through the FTA's dispute settlement procedures (*see* Article 18.7). An innovative feature allows an award of a monetary assessment if a Party is found to be in violation of its effective enforcement obligation (Article 20.7). Once paid, the assessment will be placed in a fund and used for appropriate environmental initiatives, including efforts to enhance environmental law enforcement (Article 20.7.4). To provide additional incentives for compliance, there are also provisions for backup mechanisms in the event that the assessment is not collected (Article 20.7.5-7.6). These backup mechanisms include use of an escrow fund or other collection steps, including the suspension of trade benefits where appropriate.

In addition, an article on procedural guarantees (Article 18.3) 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. Article 18.4 establishes a relatively simple and flexible institutional arrangement to implement the environmental provisions and to provide for dialogue and information sharing between the Parties on environmental matters, while several provisions (*e.g.*, Articles 18.5, 18.6) establish avenues for public involvement. Article 18.8 addresses the relationship of the FTA to multilateral environmental agreements (acknowledging the negotiations now taking place in the WTO and providing for consultations on the applicability of any outcome of those negotiations to the FTA), and Article 18.9 is a hortatory provision encouraging voluntary promotion of corporate stewardship.

As with 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, Article 13.3.1 of 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 regulations requiring 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 other chapters of the FTA (*e.g.*, preamble, dispute settlement, transparency, government procurement, general exceptions).

The FTA encourages effective enforcement of environmental law, and as the United States effectively enforces its environmental laws 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 laws” includes only those U.S. statutes or regulations that are enacted by Congress, or promulgated pursuant to an act of Congress, that are enforceable, in the first instance, by an action of the federal government (*see* Article 18.10).

The environment provisions of the FTA have positive implications for the enforcement of environmental laws and the furtherance of environmental protection in both the United States and Singapore. The FTA’s core environmental obligations encourage high levels of environmental protection in both countries. The Environment Chapter creates a valuable on-going forum for government environment officials from both Parties (including at the political level, where appropriate) to discuss the full range of environmental matters arising under the agreement, establish appropriate procedures for public participation, and identify projects and goals for environmental cooperation. This forum should help cement an already strong U.S.-Singapore environmental relationship. Other transparency and public participation provisions in the FTA (*e.g.*, Chapter 19) can also be expected to facilitate effective development of environmental laws and regulations.

Finally, as discussed in Section VII, the cooperative elements of the FTA package promote important opportunities for the two countries to work together to strengthen environmental capacity in the Southeast Asia region.

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 discusses 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 that “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 at 155 (2002).

Potential Environmental Regulatory Impacts

In this review of the potential regulatory impact 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 Singapore 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 15.4) make clear that these obligations apply to investors “in like circumstances.” This phrase signals that domestic regulation (including environmental regulation) may, in furtherance of nondiscriminatory 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.⁹

⁹ Likewise, as with prior U.S. BITs and Chapter 11 of NAFTA, 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, or relating to the conservation of living or non-living natural resources. *See* Article 15.8. 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>).

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 15.3.1 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 15.10, 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 in Section V.A above, one of the core obligations in the Environment Chapter (Article 18.2.2) provides that each Party shall strive to ensure that it does not waive or derogate from its environmental laws as an encouragement for investment in its territory.

Our analysis gave particular weight to the numerous clarifications to 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 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 15.5). Thus, Article 15.5.2 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 15.5.2(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. An exchange of letters (which is an integral part of the agreement, *see* Article 15.26) 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 15.6) by including an interpretation in an exchange of letters that elaborates on relevant principles of U.S. law and clarifies the relationship of indirect expropriations and domestic regulations. Specifically, the exchange of letters 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 15.20 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 15.19 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 15.19 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 15.21, all interpretations of the FTA by the Joint Committee charged with implementing the FTA shall be binding on arbitral tribunals. Further, Article 15.19 and an accompanying exchange of letters 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 Singaporean 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. Enforcement and Information Sharing on Customs and Import-Export Matters

Because Singapore is a major transit port, concerns have been raised that its facilities may face increased transshipment or transit of goods from third countries that are subject to import prohibitions or restrictions. During the negotiations, the Administration urged the GOS to use the FTA to contribute positively to efforts to control illegal trade, including through commitments on cooperation and information sharing.

The FTA contains several provisions that will not only enhance transparency and efficiency of customs operations, but will also improve the tools available for the Parties' relevant competent authorities to work cooperatively at various levels to address effectively the issue of trade that is illegal under their respective "restrictions and prohibitions on imports or exports." *See* Article

4.5. These provisions should have a positive effect on our ability to enforce U.S. measures concerning illegal wildlife and other environmentally sensitive trade.

VII. ENVIRONMENTAL COOPERATION

The United States and Singapore have a productive history of environmental cooperation, including in areas such as air quality, solid waste management, and clean production. In particular, the U.S. EPA and the U.S.-Asia Environmental Partnership have worked closely with Singapore's Ministry of Environment in efforts to support the diffusion of cleaner, more efficient technologies and improved environmental standards throughout the Southeast Asia region. *See* Annex III (Inventory of Existing Environmental Cooperation Activities with Singapore). The two countries also work closely on regional sustainable development issues through multilateral bodies such as APEC.

As discussed above, the Trade Act provides that a principal U.S. negotiating objective with respect to the environment should be to strengthen environmental capacity building in U.S. trading partners. As of the date of this review, the United States and the GOS have completed negotiation of a Memorandum of Intent on Cooperation in Environmental Matters, which will provide a framework for the two countries to pursue cooperative activities addressing this objective.

ANNEX I

Background on Singapore's Environment and Environmental Regulatory Regime

Singapore's Environmental Record

Singapore is a highly urbanized city-state that has experienced rapid industrialization and economic growth in the last three decades.¹⁰ *As a result, Singapore has focused on ways of addressing urban pollution, and has developed a long track record of effective environmental regulation and enforcement in this area. In 1972, Singapore created its Ministry of Environment (ENV), becoming one of the first countries in the world to establish a national-level agency dedicated to environmental protection. Though ENV has primary responsibility for administering Singapore's environmental protection regime, a number of other agencies (e.g., the Ministry of Health, the Maritime and Port Authority, the Agri-Food and Veterinary Authority, and the Land Transport Authority) assist with enforcement, administration, management, and research activities.*¹¹

At the UN-sponsored 1992 Earth Summit in Rio de Janeiro, Singapore unveiled the Singapore Green Plan (SGP), a ten-year plan for protecting and sustaining the environment. Most of the programs in the SGP have been successfully implemented, resulting in a generally high environmental quality and improvements in principal environmental indicators (e.g., air, water) despite almost continual economic growth. Singapore's ambient air quality is well within both U.S. EPA and World Health Organization (WHO) standards. Likewise, Singapore's comprehensive wastewater collection and treatment infrastructure has kept its water sources relatively clean. Over 99 percent of the population in Singapore enjoys modern sanitation. All wastewater is collected and treated at six water reclamation plants before discharge into the sea, or is further treated for re-use. Drinking water meets or exceeds WHO potable water standards, and inland and coastal waters support both aquatic life and recreational use.

Singapore incinerates 90 percent of its unrecycled solid waste and landfills the rest. With little space for additional incineration or landfill facilities, Singapore has implemented ambitious recycling programs to reduce the growth of solid waste. ENV estimates that 44 percent of Singapore's solid waste is now recycled. Approximately 5 percent of Singapore's landmass has been set aside as "green space" (i.e., conservation areas), and Singapore intends to undertake further planting.

¹⁰ This section draws in part upon information provided by the Government of Singapore. Further information about Singapore's environment and environmental regulatory regime can be found in Singapore's environmental review of the FTA, available at www.env.gov.sg.

¹¹ For example, the Ministry of Trade & Industry, in cooperation with the Singapore Institute of Standards and Industrial Research, is engaged in helping Singaporean companies qualify for ISO 14000, the International Organization for Standardization's environmental management benchmark.

Citizen input on environmental issues can reach relevant government agencies through a number of channels, from formal public consultations on draft policy documents to ENV's interactive website (<http://www.env.gov.sg/default1.htm>) or the Singaporean government's Service Improvement Unit. Citizens' Consultative Committees, Residents' Committees, and Community Center Management Committees also serve to provide feedback. In addition, Singapore has an active community of NGOs dedicated to environmental issues. The Singapore Environment Council (SEC), an umbrella organization for environmental groups and causes, helps coordinate the activities of many of Singapore's smaller NGOs. For more information, see the SEC's website (<http://www.sec.org.sg/>).

Singapore is a party to various multilateral environmental agreements, including the International Convention for the Prevention of Marine Pollution from Ships, the Basel Convention for the Control of Transboundary Movements of Hazardous Wastes and their Disposal, the UN Convention on Biological Diversity, the UN Framework Convention on Climate Change, the Convention on Trade in Endangered Species of Wild Flora and Fauna, and the Montreal Protocol on Substances that Deplete the Ozone Layer. See Annex I (list of major international environmental agreements to which Singapore is a Party). Relevant aspects of Singapore's implementation of CITES and the Montreal Protocol are discussed in greater depth below.

Regionally, Singapore has taken the lead on several important environmental initiatives: banning the import and manufacture of nonpharmaceutical aerosols containing chlorofluorocarbons (CFCs) and polystyrene sheets produced with CFCs; introducing unleaded gasoline (1992); phasing out CFCs (1993); and phasing out leaded gasoline (1998). In addition, Singapore actively participates in a number of Association of Southeast Asian Nations (ASEAN) initiatives designed to improve cooperation on environmental issues. These efforts include the ASEAN Agreement on Transboundary Haze Pollution, the harmonization of air and water quality standards, and a series of environmental conferences to exchange ideas and experiences with other ASEAN countries. Singapore hopes to become a regional hub for environmental technology promotion and intends to establish a permanent "environment academy" for training decision makers in other countries regarding environmental standards, regulations, practices, and technologies.

In 2001, Singapore commenced a review of the 1992 SGP mentioned above. The revised plan is called the Singapore Green Plan 2012, or SGP 2012. The draft SGP was prepared with input from the representatives of all sectors (referred to by Singapore as the "3P" – Public, Private, and People sectors) and made available at a Singapore government website, <http://www.env.gov.sg/sgp2012>. Singapore finalized the SGP 2012 in 2002 and presented it at the World Summit on Sustainable Development in Johannesburg, South Africa in October 2002. The SGP 2012 is intended to serve as Singapore's environmental blueprint to help the country to achieve environmental sustainability over the next ten years. The SGP 2012 maps out three key "policy thrusts." The "first thrust" is to ensure the innovative and efficient use of scarce resources. The Plan sets out a number of targets for land, air, and water, to be achieved by 2012: (1) to increase the rate of recycling to 60 percent, and work towards "zero landfill"; (2) to diversify and increase water supply by increasing catchment areas to 67 percent of land surface, and increase supply from non-conventional waters sources (*i.e.*, desalinization and water

reclamation); (3) to strive for continued improvement of air quality through greater use of cleaner energy, higher energy efficiency, and adoption of best practices in pollution control; and (4) to retain a low incidence of environment-related diseases.

The SGP 2012's "second thrust" is to promote the active participation of all sectors of the population in sustaining a quality living environment, including participation in all the major environmental initiatives. Singapore also intends to increase efforts to promote public awareness and public education concerning environmental issues.

The Plan's "third thrust" commits Singapore to doing its part for the global environment. In particular, Singapore plans to play an active role in regional efforts to reduce or eliminate transboundary pollution and in supporting environmental capacity building efforts for the international community.

ANNEX II

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

(date of Singapore's accession in parenthesis)

Vienna Convention for the Protection of the Ozone Layer (1/5/89)

UN Framework Convention on Climate Change (5/29/97)

Basel Convention on the Control of Transboundary Movement of Hazardous Wastes and their Disposal (1/2/96)

Convention on Biological Diversity (12/8/95)

Convention on the International Trade in Endangered Species of Wild Fauna and Flora (11/30/86)

Montreal Protocol on Substances that Deplete the Ozone Layer (1/5/89)

- 1990 London Amendment to Montreal Protocol (3/2/93)
- 1992 Copenhagen Amendment to Montreal Protocol (9/22/00)
- 1997 Montreal Amendment to Montreal Protocol (9/22/00)

MARPOL Protocol for the Prevention of Pollution from Ships (Annexes I, II, III, V) (11/90)
(Singapore ratified Annex VI on August 10, 2000, and is currently working on Annex IV).

UN Convention on the Law of the Sea (11/17/94)

UN Convention to Combat Desertification in Those Countries Experiencing Serious Drought and/or Desertification, Particularly in Africa (4/26/99)

Consultative Mechanisms to which Singapore is a Party

Malaysia-Singapore Joint Committee on the Environment (MSJCE)

Indonesia-Singapore Joint Committee on the Environment (ISJCE)

ANNEX III

Inventory of Existing Environmental Cooperation Activities with Singapore

- Under the auspices of the Asia-Pacific Economic Cooperation (APEC) Forum, the United States and Singapore jointly organized and sponsored a regional training workshop on “Cost-Effective Strategies for Cleaner Production in the Electronics and Computer Industry.” The event was held in Singapore March 22-25, 1999 and brought together officials and business representatives from Australia, Chinese Taipei, Hong Kong, Indonesia, Malaysia, the Philippines, the PRC, and Thailand. The U.S. Environmental Protection Agency (EPA), through its cooperative program with the U.S.-Asia Environmental Partnership (USAEP), participated in the workshop. The EPA presentation highlighted the U.S. experience in promoting pollution prevention in the computer and electronics industries, particularly the printed wiring board, semiconductor, and cathode ray tube manufacturing sectors. The presentation focused on regulatory approaches and technical assistance. An EPA grant to the U.S.-based Environmental Training Institute provided additional logistical support and U.S. private sector input for the event.
- EPA, again through its cooperative program with USAEP, conducted a regional workshop on particulate matter in Singapore, April 28-30, 1999. Co-sponsored by the Singapore Ministry of Environment and the Singaporean Institute of Environmental Epidemiology, the workshop focused on tracking airborne particulate matter less than 2.5 micrometers in diameter (PM 2.5), which poses serious human health risks when inhaled. The workshop was a follow-up to a 1997-98 EPA technical assistance program, which focused on analyzing the effects of Indonesian biomass fires on human health in the region. Led by EPA scientists, the event included a review of the United States’ latest PM2.5 developments, including air pollution health impacts, policies, and regulations.
- In April, 2001, EPA, together with USAEP and the Singapore Accreditation Council, provided support for an International Conference on Analytical Technology which was held in Singapore. The conference was designed to address analytical methods, quality assurance, and quality control issues in analytical laboratories. The program was hosted by the Environmental Technology Institute, featured an EPA chemist as a key speaker, and highlighted several EPA analytical methods and methodologies, as well as the National Environmental Laboratory Accreditation procedures.
- USAID/USAEP and Singapore’s Ministry of Environment jointly sponsored the “Workshop on Developing Urban Municipal Solid Waste Management Systems and Institutions,” held in Jakarta May 13-14, 2002. The event included officials from Indonesia’s Ministry of Environment, various municipalities around Jakarta, and the Philippines. The workshop provided useful information on the experiences of countries in the region at different levels of economic development, the role of the public in developing sustainable waste management systems, and ideas and technologies from the United States. The event laid the foundation for further cooperation between the

participants and for the development of a comprehensive municipal solid waste plan for Jakarta.

- The Department of Commerce's Office of Environmental Technologies Industries has participated in several environmental activities with Singapore, including U.S. technology representation at environmental trade shows in Singapore and a trade mission of U.S. environmental technology firms to Singapore pursuant to grants under the Market Development Cooperation Program. These programs resulted in memoranda of understanding and millions of dollars in sales of environmental goods and services to Singapore.

ANNEX IV

List of Commenters on the Draft Environmental Review

John Harding, Private Citizen
Marine Aquarium Council
National Conference of State Legislators, *et al.*
National League of Cities
States of California and Idaho
United States Council for International Business (TEPAC member)
World Wildlife Fund