

**Interim Environmental Review**

**Trans-Pacific Partnership Agreement**

**Office of the U.S. Trade Representative**

**August 2013**

## Executive Summary

Pursuant to authority delegated by the President in Executive Order 13277 (67 *Fed. Reg.* 70305) and consistent with Executive Order 13141 (64 *Fed. Reg.* 63169) and its Guidelines (65 *Fed. Reg.* 79442), the Office of the United States Trade Representative (USTR) issues this Interim Environmental Review of the prospective Trans-Pacific Partnership Agreement (TPP), as provided for under section 2102(c)(4) of the Trade Act of 2002 (Trade Act), and consistent with the Administration's practice of observing the procedures of the Trade Act.

On December 14, 2009, U.S. Trade Representative Ron Kirk notified the Congress of the President's intent to enter into negotiations on a regional, Asia-Pacific trade agreement with Australia, Brunei Darussalam, Chile, New Zealand, Peru, Singapore, and Vietnam. On October 5, 2010, U.S. Trade Representative Kirk notified the Congress of the President's intent to commence negotiations with Malaysia in the context of the ongoing TPP negotiations. On June 18 and 19, 2012, U.S. Trade Representative Kirk notified the Congress of the President's intent to commence negotiations with Mexico and Canada, respectively, in the context of the ongoing TPP negotiations. On April 24, 2013, Acting U.S. Trade Representative Demetrios Marantis notified the Congress of the President's intent to commence negotiations with Japan in the context of the ongoing TPP negotiations. Multiple rounds of negotiations have taken place and additional rounds are scheduled. Negotiations are expected to conclude in 2013.

The environmental review process examines possible environmental effects that may be associated with a proposed trade agreement. This review was formally initiated by publication of a notice in the Federal Register, which requested public comment on the scope of the review (*see* 75 *Fed. Reg.* 14479 (March 25, 2010)). Notices published in the Federal Register also requested public comments on the overall negotiation, announced public hearings on the proposed trade agreement, and invited additional comments on the environmental review (*see* 74 *Fed. Reg.* 4480 (Jan. 26, 2009); 74 *Fed. Reg.* 66720 (Dec. 16, 2009); 75 *Fed. Reg.* 64778 (Oct. 20, 2010); 77 *Fed. Reg.* 43131 (July 23, 2012); 77 *Fed. Reg.* 43133 (July 23, 2012); and 78 *Fed. Reg.* 26682 (May 7, 2013)). Comments and testimony addressing environmental issues received in response to the notices were taken into account in the preparation of this Interim Environmental Review. The review also draws on the environmental and economic expertise of federal agencies. Consistent with Executive Order 13141 and its Guidelines, the focus of the review is on potential environmental impacts of the trade agreement in the United States. Additionally, this review includes consideration of possible global and transboundary environmental effects.

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

- The TPP countries collectively constitute significant markets for the United States, and the TPP is expected to create important opportunities for U.S. trade. However, the increased trade that is estimated to result from the TPP is not likely to result in significant adverse environmental impacts in the United States. Specific issues identified for further analysis

include the potential for increased trade to contribute to: localized environmental impacts at selected U.S. maritime ports; increased risk of introduction of invasive species; and potential environmental impacts due to increased domestic liquefied natural gas production driven by prospective TPP trade. In each case, the likelihood and magnitude of any increased risks resulting from the proposed TPP agreement, while difficult to quantify, appear to be small.

- Based on an analysis of the impact of comparable provisions of previous free trade agreements (FTAs), the proposed TPP is not expected to have a negative impact on the ability of U.S. government authorities to enforce or maintain U.S. environmental laws or regulations.
- While the focus of this interim environmental review is on environmental impacts in the United States, the review examines a variety of transboundary and global issues to identify possible environmental concerns to be considered in the course of negotiations, as well as areas for possible priority attention in bilateral and regional cooperation. Our preliminary analysis concludes that the likelihood and magnitude of any increased risks with respect to these issues, while difficult to quantify, appears to be small.
- The proposed TPP could have positive environmental impacts in TPP partner countries by reinforcing efforts to effectively enforce environmental laws and enhance the conservation of natural resources, accelerating economic growth and development through trade and investment which could make environmental protection a higher priority, and disseminating environmentally beneficial technologies and services. The TPP also provides a context for enhancing bilateral and regional cooperation activities to address environmental issues of concern.

# Environmental Review of the Trans-Pacific Partnership Agreement

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## **I. LEGAL AND POLICY FRAMEWORK**

### **A. The Trade Policy Context**

The Administration is observing, as a matter of policy, the relevant procedures of the Trade Act of 2002 (19 U.S.C. 3804) (Trade Act), which apply to trade agreements entered into before July 1, 2007 with respect to notifying and consulting with the Congress regarding the TPP trade agreement negotiations. The Trade Act establishes a number of negotiating objectives and other priorities relating to the environment. As relevant here, the Trade Act contains three sets of objectives: (i) overall trade negotiating objectives; (ii) principal trade negotiating objectives; and (iii) promotion of certain priorities, including associated requirements to report to Congress.

The Trade Act's "overall trade negotiating objectives" with respect to the environment include:

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

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

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

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

- (1) seeking to establish consultative mechanisms among parties to trade agreements to strengthen the capacity of U.S. trading partners to develop and implement standards for the protection of the environment and human health based on sound science, and reporting to the Committee on Ways and Means and the Committee on Finance (“Committees”) on the content 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 consulting with parties to such agreements regarding the consistency of any such agreement that includes trade measures with existing exceptions under Article XX of the General Agreement on Tariffs and Trade 1994 (GATT 1994) (section 2102(c)(10)).

## **B. The Environmental Review Process**

The framework for conducting environmental reviews of trade agreements is provided by Executive Order 13141 – *Environmental Review of Trade Agreements* (64 *Fed. Reg.* 63169 (Nov. 18, 1999)) and the associated Guidelines (65 *Fed. Reg.* 79442 (Dec. 19, 2000)). The Order and Guidelines are available on USTR’s website at: <http://www.ustr.gov/trade-topics/environment/environmental-reviews>.

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

The environmental review process provides opportunities for public involvement, including an early and open process for determining the scope of the environmental review (“scoping”). Through the scoping process, potentially significant issues are identified for in-depth analysis, while issues that have been adequately addressed in earlier reviews, or are less significant, are eliminated from detailed study.

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

The preliminary assessment of the potential environmental impacts of the TPP is set out in Section III below. Background information on the economy and environment in the TPP countries and their bilateral trade relationship with the United States provides useful context for the analysis, and is set out in Section II below.

## **II. BACKGROUND**

Section A provides background information on the economy and environment in each TPP country. Section B provides information on bilateral trade between the United States and each TPP country. Section C outlines U.S. negotiating objectives in the TPP.

### **A. Economy and Environment in TPP Countries**

#### **Australia**

Australia has a population of approximately 23 million. Its GDP was approximately \$1.5 trillion in 2012.<sup>1</sup> In 2012, Australia's GDP per capita was \$67,723 and its total goods trade amounted to approximately \$507 billion (\$256 billion in exports and \$251 billion in imports).<sup>2</sup> Mineral fuels and iron ores accounted for almost 50 percent of its total exports. China, Japan, the United States, South Korea, and Singapore are Australia's top five trading partners.

Australia is the Earth's biggest island and the sixth-largest country in the world in land area. It is 7,741,220 square kilometers in area (slightly smaller than that of the contiguous 48 states of the United States) and includes both temperate and tropical regions. It is also one of the world's oldest landmasses and has ten percent of the world's biodiversity and a great number of its native plants, animals, and birds exist nowhere else in the world. More than 80 percent of the country's flowering plants, mammals, reptiles, and frogs are unique to Australia, along with most of its freshwater fish and almost half of its birds. Its marine environment is home to 4,000 fish species, 1,700 coral species, 50 unique marine mammal species, and a broad range of seabirds.

Australia has well-established institutions and laws for protecting the environment, including procedures for considering the possible environmental consequences of government policies. Environmental issues are also among the topics addressed in the process of Australian Cabinet-level and Parliamentary consideration of proposed trade agreements. Matters of national environmental significance protected under national environment law include: listed threatened

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<sup>1</sup> IMF World Economic Outlook Database (April 2013).

<sup>2</sup> Australian Bureau of Statistics.

species and communities, listed migratory species, wetlands of international importance, the marine environment, world heritage properties, and the Great Barrier Reef Marine Park.

Australia is committed to conserving its unique environment and natural heritage and has a range of protection measures in place. Over 11 percent of the continental Australian territory is protected, amounting to more than 900,000 square kilometers. There are more than 550 national parks and 6,000 conservation areas protected by federal, state, or territory legislation. Australia has 200 marine protected areas, which cover almost 65 million hectares (161 million acres). These include the Great Barrier Reef Marine Park, fish habitat reserves, fish sanctuaries, and conservation areas. In 2012, Australia enacted the Illegal Logging Prohibition Act, which prohibits the importation or domestic processing of illegally logged timber, and requires importers of regulated timber products and processors of raw logs to conduct due diligence in order to reduce the risk that illegally logged timber is imported or processed.

#### *Key Environmental Issues in Australia*

Australia is the driest inhabited continent on Earth, with the least amount of water in rivers, the lowest run-off, and the smallest area of permanent wetlands of all the continents. One third of the continent produces almost no run-off at all and Australia's rainfall and stream-flow are the most variable in the world. Policies to cope with a long drought in the 2000s led to investment in desalination plants and higher prices for water to encourage recycling and greater efficiency.

#### **Brunei Darussalam**

Brunei Darussalam has a population of approximately 399,000. Its GDP was approximately \$16.6 billion in 2012.<sup>3</sup> In 2012, Brunei's GDP per capita was \$41,703<sup>4</sup> and its total goods trade was approximately \$18.1 billion (\$11.7 billion in exports and \$6.5 billion in imports).<sup>5</sup> Brunei's major exports include natural gas and oil, which account for 90 percent of Brunei's GDP. Brunei's major trading partners are Japan, Singapore, Australia, South Korea, and China.

Brunei, with a land size of 5,765 square kilometers (slightly larger than Delaware), is located on the north of the island of Borneo, together with Malaysia and Indonesia. About 50 percent of the country's land area is covered by forests, which are largely intact and almost 100 percent virgin. Brunei's forests are entirely publicly owned. The government has made a strong commitment to conservation with more than 50 percent of the country under some form of environmental protection. Brunei has some 6,000 species of plants, 455 birds, 157 mammals, and 73 reptiles. Along with Malaysia and Indonesia, Brunei is signatory to the tri-party rainforest conservation program, "Heart of Borneo," which is intended to sustainably manage a 220,000 square kilometer stretch of pristine rainforest in Borneo.

#### *Key Environmental Issues in Brunei Darussalam*

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<sup>3</sup> IMF World Economic Outlook Database (April 2013).

<sup>4</sup> IMF World Economic Outlook Database (April 2013).

<sup>5</sup> IMF Direction of Trade (June 2013).

Fisheries and Marine Mammals: The Fisheries Order of 2009 seeks to protect Brunei's waters from pollution caused by fishing using explosives, poisons, pollutants, or noxious substances, and also prohibits the capture or sale of any aquatic mammals in Brunei's waters and the possession and receipt of prohibited fish species under the Convention on Trade in Endangered Species of Wild Fauna and Flora (CITES). To address the issues of overfishing of demersal stocks and to protect marine biodiversity, Brunei plans to establish a series of marine protected areas. The Ministry has also recently launched a National Plan of Action against Illegal, Unreported and Unregulated Fishing (NPOA-IUU).

Pollution and Disposal of Toxic Wastes: Brunei lacks a regulatory framework to deal with pollution and toxic waste disposal and has only limited facilities to deal with hazardous waste. There is presently no waste classification system and, apart from the occasional arrangements for special disposal of hazardous wastes, waste generated is either disposed with household refuse in common landfill sites or discharged in wastewater to water courses. Uncontrolled dumping of domestic trash into Brunei's rivers has damaged their water quality.

Wildlife Trade/Illegal Logging: Provisions for the protection of wildlife, flora, and fauna are included in the Wild Fauna and Flora Order 2007, the Forest Act (2002), and the Wildlife Protection Act. Currently, 34 species protected under CITES are also protected in Brunei. The Government is in the process of updating Brunei's Wildlife Protection Act and is also contemplating adding more species to its protected list. Based on the Forestry Department's statistics, Brunei saw losses amounting to more than \$1 million caused by illegal logging in 2010. The Forestry Department is pushing to increase its number of forest rangers to better enforce Brunei's forestry laws.

## **Canada**

Canada has a population of approximately 35 million. Its GDP was \$1.8 trillion in 2012.<sup>6</sup> In 2012, Canada's GDP per capita was \$52,232 and its total goods trade amounted to over \$917 billion (\$462.4 billion in exports and \$454.7 billion in imports).<sup>7</sup> Mineral fuel and oil represented nearly 25 percent of Canada's exports in 2012.<sup>8</sup> Canada is the United States' largest foreign supplier of energy, including oil, natural gas, uranium, and electricity. Canada's major trading partners are the United States, China, Mexico, the United Kingdom, and Japan.

Canada is 9,984,670 square kilometers in area (slightly larger than the United States) and varies in climate from temperate in the south to subarctic and arctic in the north. A land of vast distances and rich natural resources, in terms of area Canada is the second-largest country in the world (after Russia). Canada and the United States share the world's longest border (5,500 miles) with 90 percent of Canada's population concentrated within 100 miles of that border.

Environmental regulatory authority in Canada is shared between the federal and provincial governments. The provinces have exclusive legislative jurisdiction over natural resources and the production and distribution of energy. The federal government regulates international and

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<sup>6</sup> IMF World Economic Outlook Database (April 2013).

<sup>7</sup> Statistics Canada.

<sup>8</sup> Statistics Canada.

interprovincial movement of energy. On climate policy, both federal and provincial governments can implement carbon taxes or trading schemes, regulate direct emissions into the atmosphere, and impose product regulations such as automobile emissions requirements or fuel standards.

### *Key Environmental Issues in Canada*

Air and Water Quality and Management: The United States and Canada signed the Air Quality Agreement in 1991 to address transboundary air pollution. The agreement contains three annexes that address emissions from acid rain, coordinate monitoring and exchange of information on air pollution, and address precursor pollutants to ground-level ozone. Both countries have met the targets of the agreement and Canada's emissions of key pollutants contributing to smog, acid rain, and poor air quality have significantly declined since 1990. Both countries have closely collaborated on real-time air quality reporting and mapping through the EPA-initiated AIRNow program ([www.airnow.gov](http://www.airnow.gov)).

Fresh Water: Canada's landmass contains about seven percent of the world's fresh water, much of that shared with the United States. The two countries cooperate closely in the management of shared water resources. The Great Lakes Water Quality Agreement, negotiated in 1972 and renewed most recently in 2012, commits the United States and Canada to cooperate on restoring and maintaining the integrity of the Great Lakes. Despite significant initial successes under this agreement, further clean-up has become more complicated and progress has slowed. The 2012 amendments are designed to take a more comprehensive, ecosystem-wide approach to lake restoration.

Chemicals Management Program: According to the UN Commission on Sustainable Development, Canada continues to be a world leader in the safe management of chemical substances and products, and supports the Strategic Approach to International Chemicals Management through its Chemicals Management Plan (CMP). Designed to meet the 2020 goals set by the World Summit on Sustainable Development for sound management of chemicals, Canada's CMP has focused on its initial review of the 200 chemical substances categorized as representing the highest priorities for risk assessment and appropriate controls. Once these 200 highest priority substances are assessed, Canada will move to assess the approximately 3,000 remaining substances of lesser priority it has identified as requiring attention.

### **Chile**

Chile has a population of approximately 17 million. Its GDP was approximately \$268.2 billion in 2012.<sup>9</sup> In 2012, Chile's GDP per capita was \$15,410 and its total goods trade amounted to over \$147 billion (\$76.8 billion in exports and \$70.6 billion in imports).<sup>10</sup> Chile has a market-oriented economy characterized by a high level of foreign trade. Natural resources (notably mining and forest products), agriculture, and services account for a significant share of Chile's

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<sup>9</sup> IMF World Economic Outlook Database (April 2013).

<sup>10</sup> Servicio Nacional de Aduana.

economic activity. Copper currently accounts for about 55 percent of Chile's exports. Chile's major trading partners are China, the United States, Japan, Brazil, and South Korea.

Chile is 756,945 square kilometers in area (nearly twice the size of California) and encompasses a wide range of climatic conditions (primarily temperate, but also including Mediterranean, alpine, and desert conditions). Chile has an extensive coastline (more than 3,728 miles) on the southern Pacific Ocean.

Environmental concerns in Chile are generally associated with air quality, water scarcity in the north, and environmental impacts of energy generation, mining, and other economic activities. Since many of Chile's primary export industries are in natural resource sectors (primarily mining, pulp and paper, and fish products), its environmental policies have focused on maintaining its natural resource base, as well as reducing mobile and stationary sources of air pollution particularly in and around Santiago. Environmental management in Chile was reorganized and consolidated in 2010 with a new environmental law, which created the Ministry of Environment.

### *Key Environmental Issues in Chile*

Air Quality Issues: Positive trends in Chile's air quality over the past 20 years have been achieved by introducing vehicle emission standards, improving fuel quality, introducing lead-free gasoline, and expanding public transportation. Emissions regulations for sulfur oxide and nitrous dioxide are being phased in for new and existing power plants. Chile's national air quality program seeks to regulate industry emissions, develop and implement standards for wood burning stoves, control vehicle emissions, and develop a plan to improve air quality monitoring. The Ministry is focused on gathering baseline data for emissions and setting nationwide standards for several sectors. The next step will be ongoing emissions monitoring, greater enforcement, and an assessment of management options, reportedly including a possible carbon cap-and-trade system.

Energy: If Chile meets its goal of six percent annual economic growth, its energy demand could nearly double by 2020. While the economy as a whole is expanding, providing energy to the booming mining sector is particularly challenging. Chile has considerable hydroelectric resources, but relies on imported hydrocarbons to meet the majority of its energy needs and utilizes only a very small percentage of biomass, wind, and solar power. The country has several natural gas plants, but the high price of natural gas is resulting in an expansion of coal-fired plants. Under Chilean law, at least ten percent of the country's energy must be generated from renewable energy sources by 2024.

Water Supply Issues: Chile's leading industries, including the water-intensive agriculture and mining sectors, place pressure on the country's water resources. Chile receives the majority of its water from glaciers and rainfall. However, the nearly 1,600 glaciers in central Chile have experienced enough area reduction that water resources for human consumption, agriculture, and mining are affected. Some Andean glaciers are projected to disappear in 15 to 25 years. Agricultural production in Chile in recent years has been seriously affected by both the shortage

of water and the high cost of pumping groundwater for irrigation. Further, Chile's reliance on hydroelectric power leaves it vulnerable to blackouts during times of drought.

Aquaculture and Fisheries: Chile has consistently been ranked among the top ten fish producing economies in the world since 1990. The Chilean government recently updated environmental regulations that apply to all aquaculture operations, including salmon farming. Since 1997, environmental impact assessments are required on all new production activities in Chile, including aquaculture. In recent years Chile has evolved as a top fish exporting economy, specifically for salmon. In 2008, the Infectious Salmon Anemia epidemic devastated the Chilean salmon industry. Many have called for increased regulation to prevent future epidemics, control water pollution from fisheries, and regulate the expansion of fisheries. As world demand for fish grows, Chilean fish exports are expected to increase, putting greater pressure on water quality and ecosystems.

## **Japan**

Japan has a population of about 128 million. Its GDP was nearly \$6 trillion in 2012.<sup>11</sup> In 2012, Japan's GDP per capita was \$46,736 and its total goods trade amounted to nearly \$1.7 trillion (\$798.4 billion in exports and \$885.8 billion in imports).<sup>12</sup> Vehicles, machinery, and electrical machinery accounted for 56 percent of Japan's total exports. Japan's major trading partners are China, the United States, South Korea, Australia, and Taiwan.

Japan is 364,485 square kilometers in area (slightly smaller than California) and stretches 3,000 kilometers from northeast to southwest over a wide range of climatic conditions. With four main islands and 3,000 adjacent islands, Japan's 29,000 kilometer coastline is one of the world's longest. The country's most famous landmark, Mt. Fuji, was designated as a UNESCO cultural heritage site in June 2013, and Japan hosts four UNESCO natural heritage sites. Japan's 30 national parks cover a total of 2.09 million hectares (nearly five million acres), approximately 5.5 percent of the country's total land area.

To address some of the problems resulting from the country's rapid post-war economic development, Japan has established a comprehensive body of environmental law. These include the Basic Environment Law (1993), which outlines the general direction of Japan's environmental policies, as well as the Air Pollution Control Law (1968), the Water Pollution Control Law (1970), the Soil Contamination Countermeasures Law (2003), and the Noise Regulation Law (1968). The Ministry of Environment (MOE) has primary responsibility for implementing and administering these laws.

### *Key Environmental Issues in Japan*

Energy: Following the shutdown of nearly all of Japan's nuclear reactors after the March 2011 earthquake, tsunami, and nuclear disaster that struck northern Japan, fossil fuel use has increased significantly. The Japanese Government has also taken steps to bolster renewable energy use by

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<sup>11</sup> IMF World Economic Outlook Database (April 2013).

<sup>12</sup> Japan Customs.

introducing preferential rates for connecting solar and other renewable sources to the grid. Prior to the disaster, nuclear plants had provided almost 30 percent of Japan's power. The accident has forced a fundamental revision of Japan's national energy mix – which is still being determined.

Fisheries and Marine Conservation: Japan is a major producer and consumer of fish and other seafood products. In particular, Bluefin tuna remains popular despite its dwindling stock. (Japan consumes about 80 percent of the world's Bluefin tuna, and Pacific stocks of the species are estimated to be just four percent of their original levels.) Japan has become increasingly dependent on imports to satisfy its large demand for fish and seafood in recent years as its own fishing industry has declined, and this trend was accelerated by the 2011 earthquake and tsunami, which destroyed much of the industry (ports, boats, and processing facilities) in Japan's northeast. Japan has implemented some successful conservation programs for certain overfished species in recent years, but 34 of 84 fish stocks were categorized as low by the Ministry of Fishing, Forestry and Agriculture in 2010.<sup>13</sup> The International Whaling Commission established a moratorium on commercial whaling in the late 1980s. Japan maintains an annual special permit to catch nearly 1,000 whales in the Southern Ocean and several hundred in the Western North Pacific for "scientific research," which is an exemption from the operation of the International Convention for the Regulation of Whaling. Annual catches by the Japanese whaling fleet have declined in recent years.

Wildlife Trade: Japan has historically been a significant consumer of ivory, and is one of the top importing countries of protected species with official permission under its domestic implementation of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES). Japan is also a major importer of live reptiles, mostly tortoises and freshwater turtles. Additionally, under its reservation to the CITES Appendix-I listing of fin whales, Japan continues to import fin whale meat and products from Iceland.

## **Malaysia**

Malaysia has a population of approximately 30 million. Its GDP was \$303.5 billion in 2012.<sup>14</sup> In 2012, Malaysia's GDP per capita was \$10,304 and its total goods trade amounted to over \$424 billion dollars (\$227.6 billion in exports and \$196.8 billion in imports).<sup>15</sup> Exports of electrical machinery and mineral oils and fuels account for 46 percent of Malaysia's exports. The state plays an active role in the economy, with state-owned enterprises in the oil and gas, steel, telecommunications, utilities, automotive, and mining industries. Malaysia's major trading partners are China, Singapore, Japan, the United States, and Thailand.

Malaysia is split geographically, with peninsular Malaysia separated by the South China Sea from the states of Sabah and Sarawak, which are located on the island of Borneo. Peninsular Malaysia is located between Thailand and Singapore, while Sabah and Sarawak share borders with Indonesia. The total land area of Malaysia is 329,847 square kilometers (slightly larger

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<sup>13</sup> Fisheries Agency of Japan, *Japan's Fishery at a Glance*, at 16 (March 2012).

<sup>14</sup> IMF World Economic Outlook Database (April 2013).

<sup>15</sup> Department of Statistics Malaysia.

than New Mexico). Located just north of the Equator, Malaysia has a tropical climate.

Malaysia has substantial biodiversity resources. Wildlife studies by National Geographic indicate that 10 square kilometers in Sabah have more unique flora and fauna than North America and Europe combined. The Borneo rainforest is considered to be the oldest rainforest in the world, at an estimated 130 million years, and is one of the most biologically diverse as well. Environmental awareness is rising within civil society, with several environmental groups active in Malaysia. Malaysia is a signatory to the tri-party forest conservation initiative, “Heart of Borneo,” along with Brunei and Indonesia.

### *Key Environmental Issues in Malaysia*

Wildlife Trafficking: Wildlife trafficking remains a significant concern, with Malaysia acting as a source country, a transit country, and a destination country. The federal Wildlife Department and non-governmental organizations alike have cited the porous borders Malaysia shares with Thailand and Indonesia as playing a major role in facilitating wildlife trafficking. In 2010, the Malaysian government passed a new Wildlife Conservation Act that significantly stiffens penalties for those found guilty of wildlife trafficking, for example increasing the penalty for hunting rhinos, tigers, or leopards from a maximum fine of \$4,700 to a minimum fine of \$31,600. This new act also empowers Malaysian police and customs officials to enforce wildlife acts, and broadens the list of protected animals. The 2010 Act is helping Malaysia to address wildlife trafficking, but enforcement challenges remain, including corruption.

Deforestation: Malaysia is the largest exporter of tropical timber products in the world, and continues to dominate the trade in raw logs, accounting for 38 percent of global exports. Efforts have been made to switch to more sustainable timber harvesting methods, but some observers contend that logging companies have little economic incentive to take long-term care of the forests they harvest, as they are given concessions that generally only last up to five to ten years. Deforestation is particularly serious in the East Malaysian state of Sarawak, where the timber trade accounts for roughly a third of the Sarawak state government’s revenues and up to 90 percent of the primary forest cover has been cleared. Creating additional pressure, cleared land in both Peninsular and Eastern Malaysia has often been utilized for plantation agriculture, including in recent years palm oil, which has become an even more important export earner for the country. In 2010 Malaysia generated roughly \$20 billion from the production and distribution of palm oil. In some regions, up to 44 percent of palm oil is produced on drained peatlands, which may be among the more threatened ecosystems in Malaysia.

Marine Conservation and the Coral Triangle: Malaysia is one of the “Coral Triangle” countries, with the coasts off the eastern Malaysian state of Sabah forming the western edge of the Coral Triangle. Spanning 2.3 million square miles (6 million square kilometers), the Coral Triangle region is often described as the “Amazon of the Seas,” with the highest coral diversity in the world. Malaysia is one of the six signatories to the Coral Triangle Initiative launched in 2007, aimed at preserving and protecting the marine life in the region.

Energy: In 2011, Malaysia adopted new legislation, which provides a legal framework for

implementing the country's ambitious National Renewable Energy Policy. Malaysia has set targets of reducing nine million tons of carbon dioxide annually by 2020 through improved energy efficiency, 11 million tons annually through increased usage of renewable energy, and 25 million tons annually through improved solid waste management.

## **Mexico**

Mexico has a population of approximately 115 million. Its GDP was \$1.2 trillion in 2012.<sup>16</sup> In 2012, Mexico's GDP per capita was \$10,247 and its total goods trade amounted to approximately \$742 billion (\$370.9 billion in exports and \$370.7 billion in imports).<sup>17</sup> Electrical machinery and vehicles account for nearly 40 percent of Mexico's total exports. Mexico's major trading partners are the United States, China, Canada, Japan, and Germany.

Mexico is 1,964,375 square kilometers in area (nearly three times the size of Texas). It is one of the most biologically diverse countries in the world and has several major ecosystems, including deserts, tropical rainforests, coastal and marine ecosystems, and a variety of mountain ecosystems.

The United States and Mexico both have extensive coastlines on the Pacific Ocean and the Gulf of Mexico, airsheds and watersheds, and flora and fauna that move across U.S.-Mexico border, sometimes migrating to distant ecosystems. The United States and Mexico work closely on environmental protection and natural conservation through many treaties, agreements, and programs.

### *Key Environmental Issues in Mexico:*

Pollution Control: Air pollution, primarily from vehicles but also from industrial sources, is a major concern in specific locations, particularly Mexico City but also along the U.S.-Mexico border. Under its "ProAire" programs, Mexico has made significant progress in reducing air pollution, notably the amount of smog in the Mexico City area. Several Mexican states are beginning to implement vehicle smog inspection programs. With support from the United States, Mexico has greatly increased the percentage of households in the border region connected to sewage systems and the amount of wastewater that is treated, producing measurable results in reducing water pollution and its associated health burdens.

Water Management: Water quality and availability are two of Mexico's most pressing environmental issues. Subsidies for water encourage overuse. In 2012, Mexico and the United States, in coordination with their respective states and agencies, signed an innovative and flexible agreement referred to as "Minute 319" that improves the conservation and management of water in the Colorado River basin, and promotes additional protections for the environment.

Protected Areas: Deforestation continues to pose environmental challenges. However, since 2006, Mexico has added 13,000 square miles of protected areas. In total, Mexico protects 13

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<sup>16</sup> IMF World Economic Outlook Database (April 2013).

<sup>17</sup> Instituto Nacional de Estadística y Geografía.

percent of its national territory. Mexico's *ProÁrbol* program helps protect over 21,000 square miles of forest, and deforestation rates have been halved in the last ten years.

Energy: Approximately 25 percent of Mexico's electricity generation comes from clean or renewable fuel sources. Mexico also has laws and programs to promote energy efficiency and renewable energy.

## **New Zealand**

New Zealand has a population of approximately 4.4 million. Its GDP was \$169.7 billion in 2012.<sup>18</sup> In 2012, New Zealand's GDP per capita was \$38,222 and its total goods trade amounted to \$74 billion (\$37.3 billion in exports and \$36.3 billion in imports).<sup>19</sup> Dairy, meat, and wood products account for about 37 percent of New Zealand's exports. New Zealand's major trading partners are Australia, China, the United States, Japan, and Singapore.

New Zealand is located in the southwest Pacific Ocean and occupies a total land area of approximately 270,550 square kilometers (about the size of Colorado). New Zealand consists of three main islands – the North Island, the South Island, and Stewart Island – in addition to more than 700 offshore islands. New Zealand is rich in biological diversity with more than 200 species of birds, many of them, such as the flightless birds, native to the country, and boasts a greater diversity of seabirds than anywhere else in the world. Coastal waters support more than 16,000 marine species, including hundreds of fish species and many marine invertebrates, as well as fur seals, sea lions, dolphins, and whales. Rainfall is generally heavy, particularly on the west coast of the South Island, which has one of the highest annual rainfalls in the world. The country is mountainous, especially the South Island, with regions of rainforests, farmlands, and glacial lakes.

### *Key Environmental Issues in New Zealand*

Invasive Species: An issue of significant environmental concern in New Zealand is the loss of native species due to invasive species. New Zealand is a world leader in invasive species management. The Biosecurity Act of 1993 covers the quarantine, importation, and monitoring of pests and unwanted organisms, and provides for pest management through regional or national pest management strategies. A biosecurity program managed by the Ministry of Agriculture and Forestry seeks to prevent harmful organisms from entering New Zealand, reduce the harm by organisms already established in New Zealand, and support efforts to inform New Zealanders and involve them in the biosecurity system.

Fisheries: In 2008, New Zealand adopted legislation to help safeguard New Zealand's ocean ecosystems while providing greater certainty for industries that operate in the Exclusive Economic Zone and encouraging investment in sustainable offshore activities. The Fisheries Act of 1996 requires that New Zealand's fisheries stocks be used sustainably. Government agencies are undertaking efforts to sustainably manage aquaculture.

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<sup>18</sup> IMF World Economic Outlook Database (April 2013).

<sup>19</sup> Statistics New Zealand.

Energy: Most of New Zealand's energy consumption is derived from fossil fuels. Some traditional renewable sources such as hydroelectricity generation and geothermal power also are employed, but the country is committed to finding other more efficient renewable sources of energy. The Energy Efficiency and Conservation Act 2000 seeks to promote energy efficiency, energy conservation, and the use of renewable sources of energy.

Waste Management: In 2002, the New Zealand government, in partnership with local governments, developed and published the New Zealand Waste Strategy. This strategy intended to lower the costs and risks of waste to society, reduce environmental damage from the generation and disposal of waste, and increase economic benefit by using material resources efficiently. The Waste Minimization Act (2008), puts in place provisions to enable households and businesses to decrease their waste disposal, a levy on industrial waste, targets for reducing waste in landfills and cleanfills, and provides for producer responsibility programs and public procurement programs to spur the development of markets for products and services that result in waste reduction.

## **Peru**

Peru has a population of approximately 30 million. Its GDP was \$199 billion in 2012.<sup>20</sup> In 2012, Peru's GDP per capita was \$6,530 and its total goods trade amounted to \$88 billion (\$45.5 billion in exports and \$42.5 billion in imports).<sup>21</sup> Even though Peru has diversified its exports, its economy is still commodity based and highly dependent on extractive industries, mainly mining. Ores and concentrates and precious stones and metals account for 51 percent of Peru's total exports. Peru's major trading partners are China, the United States, Switzerland, Japan, and Canada.

Peru is located on the western side of the South American continent and occupies a total land area of approximately 1.28 million square kilometers (approximately three times the size of California). Peru is divided into three regions: Coast, Highlands, and Rainforest. Peru is the world's fourth most biologically diverse country. It is ranked second in diversity of bird species (1,816), third in amphibian life (408), and fifth in flora with over 25,000 species. Peru has 11 eco-regions, 28 micro climates, and 87 out of the 104 life zones identified in the world. Peru has the second largest Amazon forest and is ranked ninth in total forest area. Economic development, growing energy needs, and large infrastructure projects have put pressure on Peru's natural resources and environment.

### *Key Environmental Issues in Peru*

Air and Water Pollution: The air in downtown Lima is now considered to be among the world's most sulfur contaminated. The Government of Peru has attempted to lower sulfur levels closer to international standards by replacing older diesel vehicle units and promoting the use of

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<sup>20</sup> IMF World Economic Outlook Database (April 2013).

<sup>21</sup> Superintendencia Nacional de Aduanas.

biofuels, but has had limited success.<sup>22</sup> Indoor air contamination in rural areas caused by cooking fires is another environmental issue with human health consequences. Water pollution is another major challenge facing Peru. Close to 70 percent of domestic wastewater is left untreated and in Lima alone more than 400 million cubic meters of wastewater per year are dumped into the sea. The extensive use of chemicals, some for agricultural purposes and particularly the indiscriminate use of mercury in informal mining practices, have aggravated water pollution problems in the country.

Solid Waste Management: Approximately 71 percent of the country's solid waste is not placed in landfills, and at current growth rates solid waste production will nearly double within the next decade. An estimated 17,200 tons of solid waste are generated every day, with a total annual production of 6.2 million tons. The Ministries of Economy and Finance have established a \$193 million fund to help finance municipal and regional government solid waste management projects.

Water Availability: Peru enjoys one of the largest rates of water availability per capita in Latin America (74,546 cubic meters of water per person/year). However, water availability is unevenly distributed.<sup>23</sup> Coastal water scarcity has been aggravated by the explosive growth of water-intensive agricultural export products in farms concentrated in the coastal area (e.g., asparagus, sugar cane). Overall, water usage in Peru is concentrated in agriculture (80 percent), population and industrial use (18 percent), and mining (two percent). Demographic challenges add to water resource pressures. It is estimated that by 2015, the population in Peru will grow to more than 32 million inhabitants. Vulnerability studies estimate a loss of more than 40 percent of today's water availability within the next 40 years, mainly from accelerated glacier melting, and water use inefficiency.

Illegal Logging and Deforestation: Peru holds 13 percent of the world's tropical forests, with over 70 million hectares (over 170 million acres) of rainforest, mostly located in the Peruvian Amazon.<sup>24</sup> As of 2005, Peru's deforested area covered more than seven million hectares (over 17 million acres) with an annual deforestation rate of approximately 150,000 hectares (370,500 acres) per year. The Government of Peru has launched a forestry conservation program for climate change mitigation that seeks to protect and conserve 54 million hectares (over 133 million acres) of tropical forests and curb deforestation. The Government of Peru, under the Forestry Sector Governance Annex of the United States-Peru Trade Promotion Agreement, is currently working with the U.S. Forest Service to implement a national forest products tracking system and forest inventory that would provide the tools to supervise and enforce logging

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<sup>22</sup> As recently as 2010, Peru was one of the few countries in the world that sold diesel fuel with sulfur content of up to 5,000 parts per million.

<sup>23</sup> The coastal region of the country, where 70 percent of the population lives and which produces 80 percent of the GDP, has only two percent of total water availability. The rainforest, with only 14 percent of Peru's total population, has 98 percent of available water. Julio F. Alegría, *The Challenges of Water Resources Management in Peru*, §2.2, available at:

[http://www.uwgb.edu/envsustain/Full\\_paper%20Challenges%20Water%20Resources%20JF%20Alegría\\_.pdf](http://www.uwgb.edu/envsustain/Full_paper%20Challenges%20Water%20Resources%20JF%20Alegría_.pdf).

<sup>24</sup> Of this, 7.4 million hectares are forestry concessions used for logging activities and close to 16 million hectares are natural protected areas (located in 21 regions of Peru). Forests in native and rural communities' reservations account for 21 percent of the total (14.8 million hectares).

activities while contributing to future monitoring and carbon sequestration efforts.

**Illegal and Informal Mining:** Higher prices for precious metals such as gold and silver have incentivized illegal and artisanal mining, resulting in significant contamination of water resources in some areas of the country. Estimates of the number of informal miners in Peru range from 20,000 to 90,000. These small-scale informal miners, due to their vast numbers, create substantial damage to the jungle areas and cause heavy mercury, and in some cases cyanide, contamination.

## **Singapore**

Singapore has a population of approximately 5.4 million. Its GDP was \$276.5 billion in 2012.<sup>25</sup> In 2012, Singapore's GDP per capita was \$51,162 and its total goods trade was \$788.6 billion (\$408.6 in exports and \$379.9 billion in imports).<sup>26</sup> Its economy is heavily dependent on both imports and exports, with total trade exceeding its GDP. Electrical machinery (mainly integrated circuits) and oil, not crude made up nearly 50 per cent of Singapore's goods exports in 2012. Malaysia, China, Indonesia, the United States, and Hong Kong were Singapore's top five trading partners in 2012.<sup>27</sup>

Singapore is a small, island city-state (712 square miles) in Southeast Asia, across the Singapore Strait from Indonesia. It is one of the most densely populated countries in the world, and lies in a tropical climate near the equator. Much of Singapore is less than 15 meters above sea level. Consequently, Singapore is vulnerable to the impacts of climate change, especially rising sea levels.

Singapore has no natural resources, and its environmental protection efforts are focused on ensuring air and water quality and combating climate change. The Government of Singapore is seen as highly effective in enforcing its environmental laws, although Singapore does also serve as a transit point for environmentally sensitive goods, namely wildlife that may be illegally traded.

### *Key Environmental Issues in Singapore*

**Air Quality:** Singapore has consistently maintained a high ambient air quality standard through stringent emission regulations, promotion of energy efficiency initiatives, and the use of environmentally friendly energy sources such as natural gas. As a result, the ambient concentration of major air pollutants (sulphur dioxide, nitrogen oxides, carbon monoxide, ozone, and particulate matter below 10 microns) has mostly stayed within levels considered safe under standards such as the National Ambient Air Quality Standards promulgated by the U.S. Environmental Protection Agency. Singapore's main air quality challenge comes from peat fires and forest clearing in neighboring Indonesia, which are driven by slash and burn agriculture and the growth of the palm oil industry. To address this, Singapore has established the Indonesia-

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<sup>25</sup> IMF World Economic Outlook Database (April 2013).

<sup>26</sup> International Enterprise Singapore.

<sup>27</sup> International Enterprise Singapore.

Singapore Environmental Partnership and the Indonesia-Singapore Joint Working Group on the Environment to strengthen bilateral environmental cooperation.

Water Availability: Singapore consumes about 380 million gallons of water daily, supplied by four water sources: reservoirs, imported water, desalination plants, and reclaimed and specially treated water, or “NEWater.” Currently, the city-state imports 40 percent of its water from Malaysia. Singapore plans for treated NEWater to meet 40 percent of Singapore’s water needs by 2020, up from the current 30 percent. Moreover, Singapore aims to be completely self-sufficient in meeting its water needs by 2061. To this end, the government opened the Marina Barrage dam across the mouth of the Singapore River in 2008. The dam contributes to the water supply, as well as acting as a tidal barrier to alleviate flooding concerns.

## **Vietnam**

Vietnam has a population of approximately 90 million. Its GDP was \$138.1 billion in 2012.<sup>28</sup> In 2012, Vietnam’s GDP per capita was \$1,528 and its total goods trade amounted to over \$251.5 billion (\$113.5 billion in exports and \$138 billion in imports).<sup>29</sup> The light industrial and handicraft goods sector account for approximately 43 percent of Vietnam’s exports and fuels and raw materials account for about 61 percent of its imports.<sup>30</sup> Since introducing market reforms in 1986, Vietnam has experienced rapid economic growth. Nominal GDP per capita rose from \$100 in 1989 to \$1,200 in 2010. The poverty rate dropped from 58 percent in 1993 to 12 percent in 2009. Agricultural production nearly tripled from 1987 to 2009, transforming Vietnam from a net food importer to the world’s second-leading exporter of rice. The state sector accounts for 39 percent of GDP, and state-owned enterprises enjoy priority access to resources. Vietnam’s major trading partners are China, the United States, Japan, South Korea, and Taiwan.

Vietnam is 331,114 square kilometers in area (equivalent in size to Ohio, Kentucky, and Tennessee combined) and is only 50 kilometers wide at its narrowest point. Vietnam borders China to the north and Laos and Cambodia to the west. Vietnam has a 3,260-kilometer coastline along the Gulf of Tonkin, the South China Sea, and the Gulf of Thailand.

Vietnam possesses a wide variety of unique habitats and is one of the most biologically diverse countries in the world. Wetlands are found in many parts of the country, especially the Red River and Mekong Deltas, and coral reefs are scattered along the coast, particularly in the south. Forests cover 38 percent of the land, but only seven percent of forest cover is high-quality primary forest, which is increasingly fragmented. Vietnam has 128 land protected areas, covering eight percent of the country’s land area. Effective enforcement of environmental laws is hampered by a lack of adequate resources and capacity, as well as corruption and penalties for environmental violations that are too weak to deter illegal behavior. Rapid industrialization and urbanization, combined with poor planning and weak enforcement, are increasingly causing environmental problems.

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<sup>28</sup> IMF World Economic Outlook Database (April 2013).

<sup>29</sup> IMF World Economic Outlook Database (April 2013) and IMF Direction of Trade (June 2013).

<sup>30</sup> Vietnam Industry and Trade Information Center.

The Mekong Delta is one of three “extreme” global hotspots for potential population displacement caused by sea-level rise; the Red River Delta and coastal lowlands are also densely populated. In addition, sea-level rise is expected to cause saltwater to flow deeper into estuaries such as the Mekong Delta, contaminating freshwater sources for irrigation and inundating rice paddies, exposing up to 45 percent of the crop to damage. Vietnam also faces rising temperatures and increasing risk of extreme weather such as droughts, floods, and typhoons.

### *Key Environmental Issues in Vietnam*

Water Pollution: Less than ten percent of household wastewater is treated before being discharged into the environment. In urban areas, almost all factory and hospital wastewater is discharged directly into the environment. In 2007, Vietnam had 154 industrial parks and export processing zones – home to more than one third of all industrial facilities – only 43 of which had a wastewater treatment system. As a consequence, surface water throughout Vietnam fails to meet drinking water standards for organic pollution. Monitoring for heavy metals is limited, though data show high levels in some locations.

Air Pollution: Hanoi and Ho Chi Minh City are among the six worst cities in the world for air pollution. In Hanoi, 70-75 percent of air pollutants come from local transportation. During rush hour, street-level air pollutant concentrations are frequently ten times higher than the legal limit. Emissions from the construction, industrial, agricultural, and household sectors are also significant sources of dangerous levels of particulate matter, nitrogen oxide and dioxide, carbon monoxide, sulfur dioxide, and other pollutants.

Waste: Vietnam generates about 15 million tons of solid waste a year, about one percent of which is hazardous. Waste collection service is limited (about 70 percent in cities, less than 20 percent in rural areas) and generally does not reach poor households. Self-disposal, including burning, burial, and dumping in waterways and fields, is common. For collected waste, only 17 of 91 landfills meet sanitation standards, and 49 hotspots with high environmental and human health risks have been identified. Industrial and hospital hazardous waste is generally disposed of unsafely, including commingling with non-hazardous waste and illegal dumping. According to the World Bank, Vietnam spends 5.5 percent of GDP a year on treatment of diseases caused by pollution.

Illegal Wildlife and Timber Trade: Vietnam serves as a source, transit point, and, increasingly, final market for illegally traded wildlife. Various species, including rhinos, pangolins, bears, tigers, primates, civets, turtles, snakes, and lizards are illegally traded for food and traditional medicine, with the largest volume crossing from Vietnam to China. As the Vietnamese people become wealthier, domestic demand is rising, including for rhino horn and ivory. This lucrative trade attracts a diverse group of actors, ranging from rural villagers to high-ranking government officials and well-connected trading companies. The Environmental Police Department and other law enforcement agencies seize an estimated three percent of illegally traded wildlife

products.<sup>31</sup>

Timber demand in Vietnam far outstrips supply. Vietnam's wood products industry, which generated \$3.4 billion in export revenue in 2010, requires an annual timber supply of 6.4 million cubic meters, while legal logging in Vietnam produces only 1.6 million cubic meters a year. Illegal logging continues, including in protected areas, but Vietnamese industry has become increasingly reliant on timber imports, which now account for 80 percent of supplies.

## **B. U.S. Goods Trade with TPP Countries**

### **United States – Australia Goods Trade**

In 2012, Australia was the world's 18<sup>th</sup> largest economy (based on purchasing-power-parity) and the United States' 22<sup>nd</sup> largest goods trading partner. Two-way goods trade between the United States and Australia totaled \$40.7 billion in 2012, with U.S. goods exports to Australia totaling \$31.2 billion (up 138 percent from 2002 and up 123 percent from 2004, the year before the United States-Australia Free Trade Agreement entered into force) and goods imports from Australia totaling \$9.5 billion (up 47 percent from 2002 and up 27 percent from 2004).<sup>32</sup> Nearly all bilateral goods trade is duty-free under the United States-Australia Free Trade Agreement.

Meat (\$1.5 billion), precious stones and metal (\$799 million), optical and medical instruments (\$704 million), ores, slag, ash (\$677 million), and beverages (\$540 million) were among the largest sectors of goods imported by the United States from Australia. Frozen beef (\$811 million), other articles of precious metals (\$297 million), mechano-therapy appliances (\$326 million), titanium ores and concentrates (\$345 million), and wine (\$534 million) were the largest subsets of these categories.<sup>33</sup>

Machinery (\$6.9 billion), vehicles (not railway) (\$5.9 billion), electrical machinery (\$2.5 billion), optical and medical instruments (\$2.4 billion), and aircraft (\$2.4 billion) were the largest sectors of goods exported from the United States to Australia. Self-propelled bulldozers, angledozers, graders (\$750 million), motor trucks (\$2 billion), telephone equipment (\$580 million), instruments and appliances used in medical sciences (\$932 million), and civilian aircraft (\$1.8 billion) were the largest subsets of these categories.<sup>34</sup>

In 2012, Australia was the 20<sup>th</sup> largest export market for U.S. agricultural products (\$1.3 billion), the 10<sup>th</sup> largest export market for U.S. wood products (\$110 million) and the 14<sup>th</sup> largest export market for U.S. fish products (\$48 million).<sup>35</sup> See Annex II, Table 4 for additional data.

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<sup>31</sup> Agence France-Presse, *Vietnam illegal wildlife trade eats away at biodiversity: reports* (Aug. 3, 2008), <http://www.google.com/hostednews/afp/article/ALeqM5iJ-ADoBrECuVvzEzXSr-vDbkb9IA?hl=en>.

<sup>32</sup> U.S. Census Bureau statistics.

<sup>33</sup> U.S. Census Bureau statistics.

<sup>34</sup> U.S. Census Bureau statistics.

<sup>35</sup> U.S. Department of Agriculture, Foreign Agricultural Service statistics.

## **United States – Brunei Darussalam Goods Trade**

Brunei is the world's 121<sup>st</sup> largest economy (based on purchasing-power-parity) and the United States' 141<sup>st</sup> largest goods trading partner. Two-way goods trade between the United States and Brunei totaled \$244 million in 2012, with U.S. goods exports to Brunei totaling \$158 million (up 240 percent from 2002) and goods imports from Brunei totaling \$86 million (down 70 percent from 2002).<sup>36</sup> Brunei's average applied tariff rate is 2.5 percent.

Mineral fuel (\$75 million), knit apparel (\$4 million), organic chemicals (\$3 million), aircraft (\$658,000), and machinery (\$419,000) were among the largest sectors of goods imported by the United States from Brunei in 2012. Crude oil (\$75 million), sweaters, pullovers and vests (\$2 million), acyclic alcohols (\$3 million), parts of balloons, dirigibles, gliders and airplanes (\$654,000), and gaskets (\$176,000) were among the largest subsets within these categories.

Machinery (\$45 million), aircraft (\$31 million), optical and medical instruments (\$14 million), electrical machinery (\$13 million), and iron and steel products (\$8 million) were among the largest sectors of goods exported from the United States to Brunei in 2012. Taps, cocks and valves for pipes (\$9 million), civilian aircraft, engines, equipment and parts (\$28 million), instruments for measuring or checking variables of liquids or gases (\$6 million), telephone equipment (\$4 million), and seamless tube and pipe (\$3 million) were among the largest subsets within these categories.

In 2012, Brunei was the 158<sup>th</sup> largest export market for U.S. agricultural products (\$5 million) and the 162<sup>nd</sup> largest export market for U.S. wood products (\$10,000). The United States did not export fish products to Brunei.<sup>37</sup> See Annex II, Table 5 for additional data.

## **United States – Canada Goods Trade**

Canada is the world's 13<sup>th</sup> largest economy (based on purchasing-power-parity) and the United States' largest goods trading partner. Two-way goods trade between the United States and Canada totaled \$616 billion in 2012, with U.S. goods exports to Canada totaling \$292.5 billion (up 82 percent from 2002 and up 191 percent from 1993, the year before the North American Free Trade Agreement (NAFTA) entered into force) and goods imports from Canada totaling \$323.9 billion (up 52 percent from 2002 and up 191 percent from 1993, the year before the NAFTA entered into force).<sup>38</sup> Nearly all bilateral goods trade is duty-free under the NAFTA.

Mineral fuels (\$103.4 billion), vehicles (\$57.6 billion), machinery (\$20.6 billion), plastics (\$10.2 billion), and electrical machinery (\$8.3 billion) were among the largest sectors of goods imported by the United States from Canada in 2012. Crude oil (\$72.4 billion), passenger motors (\$45.5 billion), spark-ignition reciprocating or rotary internal combustion engines (\$2.7 billion), ethylene (\$3.3 billion), and integrated circuits (\$1.1 billion) were the largest subsets within these categories.

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<sup>36</sup> U.S. Census Bureau statistics.

<sup>37</sup> U.S. Department of Agriculture, Foreign Agricultural Service statistics.

<sup>38</sup> U.S. Census Bureau statistics.

Vehicles (\$50.3 billion), machinery (\$47.2 billion), electrical machinery (\$27.5 billion), mineral fuels (\$18.8 billion), and plastics (\$13.1 billion) were the largest sectors of goods exported from the United States to Canada in 2012. Passenger motor vehicles (\$13.5 billion), computers and components (\$6 billion), telephone equipment (\$3.4 billion), oil, not crude (\$10.4 billion), and boxes, bags, and closures (\$1.8 billion) were among the largest subsets within these categories.

In 2012, Canada was the 2<sup>nd</sup> largest export market for U.S. agricultural products (\$26 billion), the largest export market for U.S. wood products (\$2.4 billion), and the 2<sup>nd</sup> largest export market for U.S. fish products (\$918 million).<sup>39</sup> See Annex II, Table 6 for additional data.

### **United States – Chile Goods Trade**

Chile is the world's 42<sup>nd</sup> largest economy (based on purchasing-power-parity) and the United States' 27<sup>th</sup> largest goods trading partner. Two-way goods trade between the United States and Chile totaled \$28.1 billion in 2012, with U.S. goods exports to Chile totaling \$18.8 billion (up 619 percent from 2002, and up 591 percent from 2003, the year before the United States-Chile Free Trade Agreement entered into force) and goods imports from Chile totaling \$9.4 billion (up 148 percent from 2002, and up 153 percent from 2003). Nearly all bilateral goods trade is duty-free under the United States-Chile Free Trade Agreement.

Copper (\$3.2 billion), edible fruit and nuts (\$1.4 billion), fish and seafood (\$988 million), wood (\$564 million), and inorganic chemicals (\$416 million) were the largest sectors of goods imported by the United States from Chile in 2012. Refined copper and copper alloys (\$3.2 billion), grapes (\$606 million), fish fillets (\$885 million), tongued or grooved wood (\$190 million), and iodine (\$228 million) were the largest subsets of these categories.

Mineral fuels (\$6.1 billion), machinery (\$3.1 billion), vehicles other than railway (\$1.9 billion), electrical machinery (\$1.2 billion), and aircraft (\$1.2 billion) were the largest sectors of goods exported by the United States to Chile in 2012. Oil, not crude (\$5.6 billion), computers and components (\$531 million), motor trucks (\$802 million), telephone equipment (\$461 million), and civilian aircraft, engines, equipment and parts (\$1.2 billion) were among the largest subsets of these categories.

In 2012, Chile was the 30<sup>th</sup> largest export market for U.S. agricultural products (\$695 million). It was the 27<sup>th</sup> largest export market for U.S. wood products (\$29 million), and the 56<sup>th</sup> largest export market for U.S. fish products (\$3 million).<sup>40</sup> See Annex II, Table 7 for additional data.

### **United States – Japan Goods Trade**

Japan is the world's 3<sup>rd</sup> largest economy (based on purchasing-power-parity) and the United States' 4<sup>th</sup> largest goods trading partner. Two-way goods trade between the United States and Japan totaled \$216.3 billion in 2012, with U.S. goods exports to Japan totaling \$70 billion (up 36

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<sup>39</sup> U.S. Department of Agriculture, Foreign Agricultural Service statistics.

<sup>40</sup> U.S. Department of Agriculture, Foreign Agricultural Service statistics.

percent from 2002) and goods imports from Japan totaling \$146.4 billion (up 20.6 percent from 2002).<sup>41</sup> Japan's average applied tariff rate is 5.3 percent.

Vehicles (\$51.3 billion), machinery (\$34.1 billion), electrical machinery (\$20.1 billion), optical and medical instruments (\$6.9 billion), and aircraft (\$3.3 billion) were the largest sectors of goods imported by the United States from Japan in 2012. Passenger motor vehicles (\$37.7 billion), printing machinery (\$4.3 billion), transmission apparatus for radiotelephony (\$2.4 billion), medical and surgical instruments and appliances (\$1.5 billion), and aircraft parts (\$3.3 billion) were the largest subsets within these categories in 2012.

Aircraft (\$8.3 billion), optical and medical instruments (\$8.2 billion), machinery (\$5.6 billion), electrical machinery (\$5.4 billion), and cereals (\$4.4 billion) were the largest sectors of goods exported by the United States to Japan. Civilian aircraft, engines and parts (\$7.2 billion), medical and surgical instruments and appliances (\$3 billion), automatic data processing machines and magnetic readers (\$1 billion), telephone line equipment (\$1.2 billion), and corn (\$3 billion) were the largest subsets within these categories in 2012.

In 2012, Japan was the 4<sup>th</sup> largest export market for U.S. agricultural products (\$13.5 billion), the 3<sup>rd</sup> largest export market for U.S. wood products (\$733 million), and the 3<sup>rd</sup> largest export market for U.S. fish products (\$759 million).<sup>42</sup> See Annex II, Table 8 for additional data.

### **United States – Malaysia Goods Trade**

Malaysia is the world's 29<sup>th</sup> largest economy (based on purchasing-power-parity) and the United States' 24<sup>th</sup> largest goods trading partner. Two-way goods trade between the United States and Malaysia totaled \$38.8 billion in 2012, with U.S. goods exports to Malaysia totaling \$12.8 billion (up 24 percent from 2002) and goods imports from Malaysia totaling \$25.9 billion (up eight percent from 2002).<sup>43</sup> Malaysia's average applied tariff rate is 6.5 percent.

Electrical machinery (\$13.3 billion), machinery (\$3.7 billion), optical and medical instruments (\$1.6 billion), rubber (\$1.4 billion), and fats and oils (\$1.7 billion) were the largest sectors of goods imported by the United States from Malaysia in 2012. Telephone equipment (\$4.3 billion), computers and components (\$1.5 billion), electrical measurement instruments (\$761 million), apparel and accessories (\$1.1 billion), and palm oil (\$984 million) were the largest subsets within these categories.

Electrical machinery (\$5.8 billion), machinery (\$1.5 billion), aircraft (\$1.2 billion), optical and medical instruments (\$774 million), and iron and steel (\$364 million) were the largest sectors of goods exported by the United States to Malaysia in 2012. Integrated circuits (\$4 billion), computers and components (\$251 million), civilian aircraft, engines, equipment and parts (\$1.2 billion), electrical measurement instruments (\$330 million), and ferrous waste and scrap (\$326 million) were the largest subsets within these categories.

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<sup>41</sup> U.S. Census Bureau statistics.

<sup>42</sup> U.S. Department of Agriculture, Foreign Agricultural Service statistics.

<sup>43</sup> U.S. Census Bureau statistics.

In 2012, Malaysia was the 28<sup>th</sup> largest export market for U.S. agricultural products (\$879 million), the 23<sup>rd</sup> largest export market for U.S. wood products (\$34 million), and the 32<sup>nd</sup> largest export market for U.S. fish products (\$9 million).<sup>44</sup> See Annex II, Table 9 for additional data.

### **United States – Mexico Goods Trade**

Mexico is the world's 11<sup>th</sup> largest economy (based on purchasing-power-parity) and the United States' 3<sup>rd</sup> largest goods trading partner. Two-way goods trade between the United States and Mexico totaled \$493.5 billion in 2012, with U.S. goods exports to Mexico totaling \$215.9 billion (up 122 percent from 2002 and up 419 percent from 1993, the year before the NAFTA entered force) and goods imports from Mexico totaling \$277.6 billion (up 106 percent from 2002 and up 595 percent from 1993).<sup>45</sup> Nearly all bilateral goods trade is duty-free under the NAFTA.

Electrical machinery (\$56.8 billion), vehicles (\$53.5 billion), machinery (\$42.3 billion), mineral fuels (\$39.9 billion), and optical and medical instruments (\$10.4 billion) were the largest sectors of goods imported by the United States from Mexico in 2012. Television receivers (\$15.4 billion), passenger motor vehicles (\$17.7 billion), computers and components (\$15.3 billion), crude oil (\$37.2 billion), and medical and surgical instruments and appliances (\$4.4 billion) were the largest subsets within these categories.

Machinery (\$36 billion), electrical machinery (\$33.9 billion), mineral fuels (\$23.7 billion), vehicles (\$20.3 billion) and plastics (\$13.9 billion) were the largest sectors of goods exported by the United States to Mexico in 2012. Office machine parts (\$8.6 billion), telephone equipment (\$5.1 billion), oil, not crude (\$19.9 billion), auto parts and accessories (\$15 billion), and ethylene (\$1.9 billion) were among the largest subsets within these categories.

In 2012, Mexico was the 3<sup>rd</sup> largest export market for U.S. agricultural products (\$18.9 billion), the 4<sup>th</sup> largest export market for U.S. wood products (\$596 million), and the 16<sup>th</sup> largest export market for U.S. fish products (\$44 million).<sup>46</sup> See Annex II, Table 10 for additional data.

### **United States – New Zealand Goods Trade**

New Zealand is the world's 63<sup>rd</sup> largest economy (based on purchasing-power-parity) and the United States' 56<sup>th</sup> largest goods trading partner. Two-way goods trade between the United States and New Zealand totaled \$6.7 billion in 2012, with U.S. goods exports to New Zealand totaling \$3.2 billion (up 78 percent from 2002) and goods imports from New Zealand totaling \$3.4 billion (up 51 percent from 2002).<sup>47</sup> New Zealand's average applied tariff rate is two percent.

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<sup>44</sup> U.S. Department of Agriculture, Foreign Agriculture Service statistics.

<sup>45</sup> U.S. Census Bureau statistics.

<sup>46</sup> U.S. Department of Agriculture, Foreign Agricultural Service statistics.

<sup>47</sup> U.S. Census Bureau statistics.

Meat (\$963 million), albuminoidal substances, modified starches, and glue (\$379 million), dairy, eggs, and honey (\$361 million), beverages (\$264 million), and machinery (\$201 million) were the largest sectors of goods imported by the United States from New Zealand in 2012. Frozen beef (\$722 million), casein (\$291 million), whey and other milk products (\$266 million), wine (\$249 million), and harvesting or threshing machines (\$33 million) were the largest subsets within these categories in 2012.

Aircraft (\$491 million), machinery (\$476 million), vehicles, not railway (\$256 million), optical and medical instruments (\$183 million), and electrical machinery (\$176 million) were among the largest sectors of goods exported by the United States to New Zealand in 2012. Civilian aircraft, engines and parts (\$456 million), gas turbines (\$59 million), passenger motor vehicles (\$141 million), medical and surgical instruments and appliances (\$75 million), and telephone equipment (\$33 million) were the largest subsets of these categories in 2012.

In 2012, New Zealand was the 45<sup>th</sup> largest export market for U.S. agricultural products (\$375 million), 57<sup>th</sup> largest export market for U.S. wood products (\$8 million), and the 41<sup>st</sup> largest export market for U.S. fish products (\$5 million).<sup>48</sup> See Annex II, Table 11 for additional data.

### **United States – Peru Goods Trade**

Peru is the world's 39<sup>th</sup> largest economy (based on purchasing-power-parity) and the United States' 39<sup>th</sup> largest goods trading partner. Two-way goods trade between the United States and Peru totaled \$15.8 billion in 2012, with U.S. goods exports to Peru totaling \$9.3 billion (up 498 percent from 2002 and up 51 percent from 2008, the year before the United States-Peru Trade Promotion Agreement entered into force) and goods imports from Peru totaling \$6.4 billion (up 231 percent from 2002, and up ten percent from 2008).<sup>49</sup> Nearly all bilateral goods trade is duty-free under the United States-Peru Trade Promotion Agreement.

Precious stones and metals (\$1.6 billion), mineral fuel and oil (\$1.4 billion), knit apparel (\$581 million), edible vegetables and certain roots and tubers (\$327 million), and tin (\$304 million) were the largest sectors of goods imported by the United States from Peru in 2012. Gold (\$1.4 billion), oil, not crude (\$1.1 billion), sweaters, pullovers, and vests (\$190 million), fresh or chilled asparagus (\$217 million), and unwrought tin (\$304 million) were the largest subsets within these categories in 2012.

Mineral fuels (\$2.2 billion), machinery (\$2.2 billion), electrical machinery (\$698 million), vehicles, not railway (\$593 million), and plastics (\$551 million) were the largest sectors of goods exported by the United States to Peru in 2012. Oil, not crude (\$2.2 billion), computers and components (\$413 million), telephone equipment (\$210 million), motor trucks (\$321 million), and ethylene (\$175 million) were the largest subsets within these categories in 2012.

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<sup>48</sup> U.S. Department of Agriculture, Foreign Agricultural Service statistics.

<sup>49</sup> U.S. Census Bureau statistics.

In 2012, Peru was the 37<sup>th</sup> largest export market for U.S. agricultural products (\$547 million), the 39<sup>th</sup> largest export market for U.S. wood products (\$18 million), and the 45<sup>th</sup> largest export market for U.S. fish products (\$4 million).<sup>50</sup> See Annex II, Table 12 for additional data.

### **United States – Singapore Goods Trade**

In 2012, Singapore was the world's 40<sup>th</sup> largest economy (based on purchasing-power-parity) and the United States' 15<sup>th</sup> largest goods trading partner. Two-way goods trade between the United States and Singapore totaled \$50.8 billion in 2012, with U.S. goods exports to Singapore totaling \$30.5 billion (up 88 percent from 2002 and up 84 percent from 2003, the year prior to the United States-Singapore Free Trade Agreement entering into force) and goods imports from Singapore totaling \$20.2 billion (up 37 percent from 2002 and up 34 percent from 2003).<sup>51</sup> Nearly all bilateral goods trade is duty-free under the United States-Singapore Free Trade Agreement.

Organic chemicals (\$5 billion), machinery (\$4.9 billion), electrical machinery (\$2.8 billion), optical and medical instruments (\$2 billion), and pharmaceutical products (\$851 million) were among largest sectors of goods imported by the United States from Singapore in 2012. Sulfonamides (\$2.2 billion), printing machinery (\$1.8 billion), integrated circuits (\$1.5 billion), instruments and appliances used for physical or chemical analysis (\$535 million), and medicaments, excluding vaccines and bandages (\$568 million) were the largest subsets of these categories.<sup>52</sup>

Machinery (\$5.5 billion), electrical machinery (\$4.6 billion), mineral fuels (\$4.4 billion), aircraft (\$4 billion) and optical and medical instruments (\$2.4 billion) were the largest sectors of goods exported by the United States to Singapore. Computers and components (\$604 million), integrated circuits (\$1.6 billion), oil, not crude (\$4.4 billion), civilian aircraft, engines and parts (\$3.2 billion), and medical and surgical instruments and appliances (\$595 million) were the largest subsets of these categories.<sup>53</sup>

In 2012, Singapore was the 31<sup>st</sup> largest export market for U.S. agricultural products (\$691 million), the 48<sup>th</sup> largest export market for U.S. wood products (\$12 million), and the 24<sup>th</sup> largest export market for U.S. fish products (\$22 million).<sup>54</sup> See Annex II, Table 13 for additional data.

### **United States – Vietnam Goods Trade**

Vietnam is the world's 41<sup>st</sup> largest economy (based on purchasing-power-parity) and the United States' 29<sup>th</sup> largest goods trading partner. Two-way goods trade between the United States and Vietnam totaled \$24.9 billion in 2012, with U.S. goods exports to Vietnam totaling \$4.6 billion

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<sup>50</sup> U.S. Department of Agriculture, Foreign Agricultural Service statistics.

<sup>51</sup> U.S. Census Bureau statistics.

<sup>52</sup> U.S. Census Bureau statistics.

<sup>53</sup> U.S. Census Bureau statistics.

<sup>54</sup> U.S. Department of Agriculture, Foreign Agricultural Service statistics.

(up 697 percent from 2002) and goods imports from Vietnam at \$20.3 billion (up 746 percent from 2002).<sup>55</sup> Vietnam's average applied tariff rate is 9.8 percent.

Knit apparel (\$4.2 billion), woven apparel (\$2.9 billion), footwear (\$2.4 billion), furniture and bedding (\$2.3 billion), and electrical machinery (\$1.4 billion) were the largest sectors of goods imported by the United States from Vietnam in 2012. Sweaters, pullovers and vests (\$1.4 billion), women/girl's suits (\$1 billion), certain footwear (\$1.1 billion), wooden bedroom furniture (\$1.8 billion), and telephone equipment (\$450 million) were among the largest subsets within these categories.

Electrical machinery (\$765 million), machinery (\$482 million), miscellaneous grain, seed, and fruit (\$355 million), cotton, yarn and fabric (\$249 million), and meat (\$225 million) were the largest sectors of goods exported by the United States to Vietnam in 2012. Integrated circuits (\$514 million), computers and components (\$106 million), soybeans (\$333 million), cotton (\$248 million), and frozen beef (\$153 million) were the largest subsets within these categories.

In 2012, Vietnam was the 16<sup>th</sup> largest export market for U.S. agricultural products (\$1.7 billion), the 6<sup>th</sup> largest export market for U.S. wood products (\$187 million), and the 19<sup>th</sup> largest export market for U.S. fish products (\$33 million).<sup>56</sup> See Annex II, Table 14 for additional data.

### **C. U.S. Objectives in the Proposed Trade Agreement**

The TPP is expected to help foster economic growth and support jobs in the United States by reducing and eliminating barriers to trade and investment between the TPP countries, enabling U.S. companies to increase their exports of goods and services to other TPP countries. The Agreement is expected to require TPP partners to eliminate their tariffs on U.S. industrial and agricultural goods, and improve transparency in regulatory and licensing procedures. The TPP negotiation also is expected to reduce or eliminate restrictions that make it difficult for U.S. service providers to operate in TPP markets, and to promote investment between the TPP countries.

The Administration has developed negotiating objectives for the TPP in close consultation with Congress and stakeholders. The specific objectives for negotiations with the TPP countries are as follows:

#### *Trade in Goods:*

- Seek to eliminate tariffs and other duties and charges on trade between each TPP country and the United States on the broadest possible basis, taking into account the need to obtain competitive opportunities for exports of U.S. goods while addressing U.S. import sensitivities.

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<sup>55</sup> U.S. Census Bureau statistics.

<sup>56</sup> U.S. Department of Agriculture, Foreign Agricultural Service statistics.

- Seek to eliminate non-tariff barriers to U.S. exports, including permit and licensing barriers on agricultural and other products, restrictive administration of tariff-rate quotas, unjustified trade restrictions that affect new U.S. technologies, including biotechnology, and other trade-restrictive measures.
- Seek to discipline state trading enterprises, state-owned enterprises and designated monopolies, as appropriate, to enhance transparency and eliminate market distortions.
- Pursue a mechanism that will support achieving the U.S. objective in the WTO negotiations of eliminating all export subsidies on agricultural products, while maintaining the right to provide *bona fide* food aid and preserving U.S. agricultural market development and export credit programs.
- Obtain fully reciprocal access to TPP country markets for U.S. textile and apparel products.

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

- Seek provisions that require each TPP country to conduct its customs operations with transparency, efficiency, and predictability, and that ensure customs laws, regulations, decisions, and rulings are not applied in a manner that would create unwarranted obstacles to international trade.
- Seek rules of origin and origin procedures for applying these rules that include provisions which address circumvention to ensure that preferential duty rates under an FTA with TPP countries only apply to goods eligible to receive such treatment, without creating unnecessary obstacles to trade.
- Seek terms for cooperative efforts with the TPP countries regarding compliance with laws and regulations on rules of origin and customs matters, including with respect to trade in textiles and apparel, industrial, and agricultural products of concern.

*Sanitary and Phytosanitary (SPS) Measures:*

- Seek to have TPP countries reaffirm their WTO SPS commitments and eliminate any SPS restrictions that are not based on science.
- Seek strong science and transparency commitments in the agreement and to enhance cooperation between U.S. and TPP countries' SPS authorities on a variety of challenging issues, including export certification, innovative agricultural technologies, and laboratory testing and methodologies.

*Technical Barriers to Trade (TBT):*

- Seek to have TPP countries reaffirm their WTO TBT commitments and eliminate any unjustified TBT measures.
- Seek to enhance transparency in the development, adoption, and implementation of voluntary and mandatory standards and related conformity assessment procedures so as to reduce the incidence of trade disruptions and make it easier to collaborate in reducing unnecessary regulatory divergences.
- Where appropriate, seek to enhance the ability of U.S. suppliers to test or certify their products/facilities once and have their products accepted throughout the TPP region without having to undergo additional duplicative procedures.
- Seek to strengthen collaboration in implementing the WTO TBT Agreement and addressing common market access concerns with third parties and create a procedure for exchanging information on TBT-related issues.
- Seek to enhance cooperation between TPP Party regulators and, where appropriate, to better align standards and related conformity assessment procedures in key sectors to enhance the ability of U.S. companies to do business in the TPP region.

*Intellectual Property Rights:*

- Seek to establish standards to be applied in TPP countries that build on the foundations established in the WTO Agreement on Trade-Related Aspects of Intellectual Property Rights and other international intellectual property agreements, such as the World Intellectual Property Organization (WIPO) Copyright Treaty, the WIPO Performances and Phonograms Treaty, and the Patent Cooperation Treaty.
- Seek to establish high standards for trademark protection and an appropriate balance between trademark and geographical indications.
- In areas such as patent protection and protection of information submitted to obtain marketing approval, seek to have TPP countries apply levels of protection and practices more in line with U.S. law and practices, including appropriate flexibility.
- Where appropriate, seek commitments from TPP countries to strengthen their laws and procedures on enforcement of intellectual property rights, such as by ensuring that TPP countries' authorities have authority to seize and destroy pirated and counterfeit goods, and the equipment used to make such goods.

- Seek commitments from TPP countries to: (1) strengthen their measures that provide for compensation of right holders for infringements of intellectual property rights, and (2) provide for criminal penalties under their respective laws that are sufficient to have a deterrent effect on piracy and counterfeiting.

*Trade in Services:*

- Pursue a comprehensive approach to market access, including any necessary improvements in access to the telecommunications, financial services, express delivery, or other sectors and address the operation of any designated monopolies or state enterprises, as appropriate.
- Seek commitments from TPP countries to improve transparency and predictability in their respective regulatory procedures, specialized disciplines for financial services, and additional disciplines for telecommunications and other sectors, as appropriate.

*Investment:*

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

*Electronic Commerce:*

- Seek commitments from TPP countries not to impose customs duties on digital products or unjustifiably discriminate among products delivered electronically.

*Government Procurement:*

- Seek rules and procedures that require TPP countries to conduct government procurement in a manner that is fair, transparent, and predictable, and to treat U.S.

goods, services, and suppliers of U.S. goods and services as favorably as domestic and other foreign goods, services, and suppliers in procurement covered by the TPP.

- Seek to expand market access opportunities for U.S. goods, services, and suppliers of U.S. goods and services in the government procurement markets of the TPP countries.

*Transparency/Anti-Corruption/Regulatory Reform:*

- Seek commitments to make each TPP country's administration of its trade and investment regime more transparent, and pursue rules that will permit timely and meaningful public comment before a TPP country adopts trade-and investment-related measures.
- Seek commitments to ensure that the TPP countries apply high standards prohibiting corrupt practices affecting international trade and investment and enforce such prohibitions.

*Competition:*

- Address anticompetitive business conduct, and other competition-related matters, as appropriate.
- Seek provisions that provide, as appropriate, for cooperation on competition law and policy and consultations on competition issues that may arise.
- Seek new disciplines that mitigate the problems associated with unfair competition from state-owned enterprises.

*Trade Remedies:*

- Provide a safeguard mechanism during a transition period to allow a temporary revocation of tariff preferences, if increased imports from the TPP countries are a substantial cause of serious injury or threat of serious injury to the domestic industry.
- Make no commitments that would require changes to U.S. antidumping and countervailing duty laws and practices.

*Environment:*

- Seek appropriate commitments by the TPP countries to effectively enforce their environmental laws and implement relevant multilateral environmental agreements.

- Seek appropriate provisions to address conservation matters of mutual interest.
- Establish cooperative mechanisms to promote sustainable development and address environmental issues of mutual interest, and, as appropriate, build capacity to protect the environment.

*Labor:*

- Seek an appropriate commitment by the TPP countries to respect internationally recognized labor rights, including the rights embodied in the ILO Declaration on Fundamental Principles and Rights at Work, and effectively enforce their labor laws concerning those rights.
- Establish cooperative mechanisms to enhance dialogue and build capacity, as appropriate, to strengthen labor institutions that ensure respect for internationally recognized labor rights.

*State-to-State Dispute Settlement:*

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

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

### **III. SCOPE OF THE ENVIRONMENTAL REVIEW**

To determine the scope of this review, the Administration considered information provided by the public and input from environmental, trade, and investment experts within federal agencies. In addition to providing guidance on the scope of the environmental review, any information, analysis, and insights available from these sources are being taken into account throughout the negotiating process and are being considered in developing U.S. negotiating positions. As envisaged by the Guidelines, environmental reviews are an ongoing process to examine environmental issues and inform negotiations. This document describes the results of this process at this interim stage of the TPP negotiations.

Section III.A describes the process used to solicit comments and advice on the scope of the environmental review, including a summary of the comments received. Section III.B discusses the possible direct impacts of the proposed TPP on the environment in the United States resulting from potential changes in the U.S. economy related to the proposed TPP. Section III.C describes a number of environmental issues associated with possible transboundary effects of the proposed

TPP. Although possible domestic impacts are the primary concern of this environmental review, global and transboundary impacts are to be considered as appropriate and prudent.<sup>57</sup> Section III.D considers the extent to which the TPP might affect U.S. environmental laws, regulations, policies, and/or international commitments.

We note that the United States has free trade agreements with six TPP countries (Australia, Canada, Chile, Mexico, Peru, and Singapore), and has conducted environmental reviews with respect to all of these earlier agreements.<sup>58</sup>

#### **A. Public Outreach and Comments**

This review was formally initiated by publication of a notice in the Federal Register, which requested public comments on the scope of the review (see *75 Fed. Reg.* 14479 (March 25, 2010)). Notices in the Federal Register also requested public comments on the overall negotiation, announced public hearings on the proposed trade agreement, and invited additional comments on the environmental review (see *74 Fed. Reg.* 4480 (Jan. 26, 2009); *74 Fed. Reg.* 66720 (Dec. 16, 2009); *75 Fed. Reg.* 64778 (Oct. 20, 2010); *77 Fed. Reg.* 43131 (July 23, 2012); *77 Fed. Reg.* 43133 (July 23, 2012); and *78 Fed. Reg.* 26682 (May 7, 2013)). The preparation of this Interim Review takes into account comments received in response to the notices and testimony at the public hearings concerning environmental issues. (See Annex I for a list of organizations providing comments.)

The Trade and Environment Policy Advisory Committee (TEPAC) drew attention to wildlife trafficking, illegal logging, protection of oceans and marine life, biodiversity conservation, and compliance with multilateral environmental agreements, among others, as important issues to be addressed in the TPP. One commenter urged that a number of issues be considered in the environmental review, including wildlife protection, forest conservation, fisheries issues (such as marine conservation, harmful fishing practices, and fish subsidies), invasive species, and environmental goods and services. Another commenter expressed concern about the potential impact in TPP countries of liberalization of tariff and non-tariff measures relating to forestry, mining, fisheries, shipping, air transportation, oil and gas extraction and transportation, and agriculture. This commenter urged an accelerated phase-out of tariffs and non-tariff barriers on environmentally beneficial technologies and services. This commenter also suggested that the environmental review should examine the potential regulatory impacts of the TPP, including, in particular, the ability of domestic regulatory authorities to take action to protect against invasive species. Another commenter noted that the TPP presents an opportunity to improve ocean conservation while expanding trade, and urged that the TPP include provisions that address fish subsidies, ensure the sustainable trade and management of sharks, combat illegal, unreported, and unregulated fishing, and promote effective enforcement of domestic fisheries management programs.

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<sup>57</sup> See Exec. Order No. 13141, §5(b), 64 Fed. Reg. 63169 (Nov. 18, 1999).

<sup>58</sup> The environmental reviews for the free trade agreements conducted under the Trade Act, including with Australia, Chile, Peru, and Singapore are available at: <http://www.ustr.gov/trade-topics/environment/environmental-reviews>.

## **B. Potential Economically-Driven Environmental Effects in the United States**

The TPP countries are important markets for U.S. goods and services suppliers. U.S. goods and services exports to the TPP countries totaled \$810.4 billion in 2011 (latest data available), accounting for approximately 39 percent of total U.S. goods and services exports and just over five percent of total U.S. production.<sup>59</sup>

Based on a recent economic analysis supported by the Peterson Institute, which takes into account existing free trade agreements between the TPP countries,<sup>60</sup> the changes in the pattern and magnitude of trade flows and production attributable to the TPP are not likely to result in significant adverse environmental impacts in the United States. This study estimated that by 2025 U.S. global exports of goods and services would be 4.4 percent higher with TPP than without TPP.<sup>61</sup> If we apply the study's analysis to U.S. global goods and services exports in 2012, the additional exports to the world due to TPP would represent 0.6 percent of U.S. production (a substantial share of which would be in services, which generally are less likely than goods production to have adverse environmental impacts).<sup>62</sup>

The liberalization of services is not expected to have significantly economically driven environmental impacts in the United States. 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).

Additionally, as discussed in Section III.D below, environmental regulations would not be adversely affected under the TPP, and in fact, could be improved and strengthened. Freer trade in environmental goods and services resulting from the TPP could facilitate access to and encourage the use of environmental technologies, which can support environmental and natural resource stewardship goals in the United States and the other TPP countries (e.g., improved sanitation, pollution prevention, and renewable energy).

Although changes in production and exports in specific environmentally-sensitive sectors could raise issues regarding the TPP's direct environmental effects in the United States, no basis for such concerns was identified in interagency analysis. However, specific issues identified for further analysis include the potential for increased trade to contribute to: localized environmental impacts at selected U.S. maritime ports; increased risk of introduction of invasive species; and potential environmental impacts due to increased domestic liquefied natural gas production driven by prospective TPP trade. In each case, the likelihood and magnitude of any increased risks resulting from the proposed TPP agreement, while difficult to quantify, appear to be small. These issues are discussed below.

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<sup>59</sup> Services data does not include Brunei, Peru, or Vietnam.

<sup>60</sup> The United States has free trade agreements with six TPP countries (Australia, Canada, Chile, Mexico, Peru, and Singapore), which account for 83 percent of U.S. goods and services exports to TPP partners. See Annex II, Tables 1-3.

<sup>61</sup> Peter A. Petri, Michael G. Plummer and Fan Zhai, *The Trans-Pacific Partnership and Asia-Pacific Integration: A Quantitative Assessment*, Peterson Institute for International Economics and East-West Center (2012), as well as more recent simulations found at: [http://asiapacifictrade.org/?page\\_id=106](http://asiapacifictrade.org/?page_id=106).

<sup>62</sup> In an earlier simulation reported in the original study, 64 percent of the increase in U.S. exports was in services.

The Administration welcomes comments on these preliminary conclusions.

### ***Port-Related Environmental Issues***

Air and water pollution at maritime ports result from the concentration and cumulative effects of emissions from ships, trucks, trains, and goods-moving equipment associated with international trade.<sup>63</sup> The emissions associated with goods movement can have a number of adverse effects on human health and the environment, particularly in and around major transportation corridors and ports of call, as well as on the broader climate. As of 2010, almost 158 million people in the United States lived in areas that do not meet one or more U.S. National Ambient Air Quality Standards. Most of the largest U.S. maritime ports and airports are located in these nonattainment areas.

Increases in trade associated with the TPP could exacerbate existing environmental concerns associated with trade-related goods movement. Impacts are most likely to be felt in key gateway ports on the West Coast (e.g., Los Angeles, Long Beach). The extent of any incremental increases in pollution that would result from the trade agreement relative to pollution resulting from total goods trade is difficult to quantify in the absence of a quantitative assessment of the likely increases in trade at these ports resulting from the trade agreement. Moreover, any assessment would also need to take into account the likely diversion of trade with other sources, which would tend to lessen the overall impact. The Administration welcomes public comment on this issue.

### ***Invasive Species***<sup>64</sup>

TPP countries span a broad range of climates, several of which share similar conditions to climates found in the United States.<sup>65</sup> This similarity in climatic conditions may increase the vulnerability of the United States to the establishment and spread of invasive species. To the extent that the TPP stimulates increases in commodity trade along known pathways for invasive species, there is a risk that the TPP could contribute to the increased movement of invasive species between TPP countries and the United States. For example, commercial marine traffic carries some risk of new invasions from ballast water discharges or hull fouling. Therefore, an increase in goods trade may be associated with an increased risk of introducing invasive species.<sup>66</sup>

The risk of increased introduction of invasive species associated with the TPP is difficult to

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<sup>63</sup> This topic is discussed in detail in the Interim Environmental Review of the U.S.-Thailand Free Trade Agreement, available at: <http://www.ustr.gov/sites/default/files/Thailand%20interim%20review.pdf>.

<sup>64</sup> The term “invasive species” refers to species not native to a particular ecosystem that are intentionally or unintentionally introduced as a result of human activities and cause, or are likely to cause, harm to ecosystems, economic systems, or human health.

<sup>65</sup> See Annex III for information on climatic characteristics of TPP countries and examples of known invasive species.

<sup>66</sup> See the U.S.-Thailand Interim Environmental Review for a comprehensive discussion of issues concerning invasive species. Available at: <http://www.ustr.gov/sites/default/files/Thailand%20interim%20review.pdf>.

quantify, but appears to be relatively small. We note that the TPP would not affect U.S. regulatory authority and measures to monitor, prevent, and combat invasive species. Moreover, the TPP is likely to include commitments by the Parties to work together in an effort to prevent the introduction of invasive species. Thus, the TPP is expected to strengthen cooperation on research, monitoring, prevention, and control of invasive species. The problem of invasive species is also the focus of considerable international effort, including through work in the International Maritime Organization, the International Plant Protection Convention, and the North American Plant Protection Organization. The Administration welcomes public comment on these issues.

### ***Liquefied Natural Gas Exports***

Under the Natural Gas Act of 1938, the Department of Energy (DOE) grants licenses for exports of liquefied natural gas (LNG) that it determines are in the public interest. DOE's public interest review includes a consideration of environmental impacts. U.S. exports of LNG to countries with which the United States has a free trade agreement in force that requires national treatment for trade in natural gas ("FTA countries") are deemed to be consistent with the U.S. public interest. As of August 2013, DOE has conditionally approved 26 applications for exports of domestically produced LNG to FTA countries and three such applications for exports to non-FTA countries.

In addition to DOE's authority over exports of LNG, U.S. LNG import and export terminals are subject to approval by the Federal Energy Regulatory Commission (FERC) or, in the case of terminals in deepwater ports, the Secretary of Transportation. FERC or the Secretary of Transportation, as the case may be, conduct an environmental review as part of its consideration of the terminal application regardless of whether the facilities will be used for exports to or imports from FTA or non-FTA countries.

Increased U.S. production and exports of LNG are expected to contribute to job creation and economic growth in the United States. Some stakeholders are concerned that liberalized trade in LNG under the TPP could potentially contribute to increased domestic natural gas production, with related environmental risks, including those associated with unconventional gas extraction techniques, such as hydraulic fracturing. Other stakeholders have expressed concerns that investment in exporting LNG will diminish investment in renewable energy.

The United States has free trade agreements in force with six of the TPP countries that require national treatment of LNG. Of those TPP countries with which the United States does not have an existing free trade agreement, the Energy Information Administration reports that most are not significant LNG importers and two are net exporters of LNG, including Malaysia, one of the world's top ten exporters of natural gas. Japan, the largest LNG importer, currently relies on imports from many countries, including other TPP partners: Australia, Brunei, and Malaysia. While the Energy Information Administration predicts that the United States will continue to increase natural gas production and will become a net exporter of natural gas by 2020, other countries are also rapidly developing their natural gas resources and exports. U.S. exporters of LNG will increasingly be competing with other suppliers in the TPP region, such as Canada,

Malaysia, and Australia. The TPP is likely to liberalize trade in LNG among all these countries as well, not just between the United States and Japan or other importers. Moreover, the TPP will not change the Natural Gas Act of 1938 or U.S. environmental laws that regulate LNG production and safeguard against potential environmental risks. Consequently, the risk of environmental damage due to increased domestic LNG production driven by TPP trade appears to be low. The Administration welcomes public comment on this issue.

### **C. Transboundary and Global Issues**

As noted above, the focus of the environmental review is on potential environmental impacts of expected economic changes in the United States that are attributable to the TPP. However, the Administration also is examining a range of environmental issues with potential global and transboundary impacts in determining the scope of this review. These were provisionally identified through public comments in response to the Federal Register notice and through an open-ended scoping process among agencies with environment, trade, and economic expertise. The following topics were identified as warranting further consideration.

#### **1. Potential Economically-Driven Environmental Effects in TPP Countries**

While not the focus of this environmental review, a recent economic analysis supported by the Peterson Institute, which takes into account existing free trade agreements between the TPP countries, estimated that the economic effects of the TPP would vary by country.<sup>67</sup> To the extent that the TPP has significant effects on the economies of TPP countries, over time, the environmental effects could be both positive and negative. The TPP is expected to lead to increased trade and investment that could increase TPP country production, which might put additional pressure on the environment. However, that concern is a driving factor behind U.S. proposals to: effectively enforce environmental laws and not weaken them to attract trade or investment; protect endangered species and combat trafficking in wildlife and timber; and ensure the long term conservation of our marine fisheries. Moreover, some new investment may bring environmentally-preferable technologies, production methods, and services as well as higher standards for private sector environmental performance. The Administration continues to examine the scale and importance of these possible effects and invites public comments on these issues.

#### **2. Wildlife Trade and CITES**

Trade in a wide variety of wildlife products occurs between TPP countries. Trade in wildlife products engages a broad swath of economic actors, ranging from subsistence users to luxury goods consumers and, in the case of illicit wildlife trade, large-scale criminal networks. TPP countries, notably Australia, Canada, Malaysia, Mexico, Peru, and Vietnam, generate and export significant volumes of wildlife products to the United States annually for use as food, luxury

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<sup>67</sup> Peter A. Petri, Michael G. Plummer and Fan Zhai, *The Trans-Pacific Partnership and Asia-Pacific Integration: A Quantitative Assessment*, Peterson Institute for International Economics and East-West Center (2012), as well as more recent simulations found at: [http://asiapacifictrade.org/?page\\_id=106](http://asiapacifictrade.org/?page_id=106). Canada also is conducting a review of environmental issues associated with the TPP.

goods, pets, and trophies. Singapore is a transshipment and re-export point for many wildlife products ultimately sold in the United States. TPP countries are also major import markets for wildlife products, including wildlife originating in the United States. Growing demand in developing economies such as Vietnam represents one of the primary drivers of increased wildlife trade over the last decade. While much of this trade is legal and regulated, wildlife trafficking is one of the largest illegal markets and is having adverse impacts on the Asia Pacific region's substantial biodiversity resources.<sup>68</sup> According to TRAFFIC, a global network that monitors wildlife trade, illegal trade in East Asia and the Pacific has led to dramatic declines in the populations of many endangered species with a high commercial value, exacerbating the impact of other negative trends such as increased habitat loss.<sup>69</sup>

A core element of the legal framework for international trade in wildlife is the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), a multilateral environmental agreement, to which all TPP countries are parties. CITES is an international treaty intended to prevent species from becoming endangered or extinct because of international trade. Under this treaty, countries work together to regulate the international trade of animal and plant species and ensure that this trade is legal and is not detrimental to the survival of wild populations. Trade in most CITES-listed species requires the exporting country to certify that the specimen was legally harvested and for higher risk species that the harvest was not detrimental to the survival of the species.

All but one of the TPP countries are listed as "Category 1" under the CITES National Legislation Project, which ranks countries according to their progress in enacting domestic legislation to fully implement CITES. Category 1 status is the highest ranking, and indicates that a country has adequate legislation in place to meet its CITES obligations. Chile is listed in Category 2, indicating that its current implementing legislation has significant gaps to be addressed. The CITES Secretariat has worked closely with Chile to assist it in developing adequate implementing legislation, and Chile has introduced legislation in order to achieve Category 1 status, but this legislation had not yet been enacted.

Notably, Malaysia recently updated its endangered species legislation, resulting in the CITES Secretariat upgrading its status to Category 1 and removing Malaysia from its list of priority countries. Peru has also made progress in its implementation of CITES. Peru undertook a series of substantial reforms starting in 2008 to strengthen governance of wildlife and forests. These

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<sup>68</sup> The biodiversity resources of TPP Parties include globally significant species and ecosystems. Five of the TPP Parties (Australia, Malaysia, Mexico, Peru, and the United States) are categorized as megadiverse, meaning that they are one of a group of 17 countries that are home to the majority of global biodiversity resources. Several TPP Parties are island nations with high rates of endemic species. In the case of Australia, 80% of its mammals, reptiles, and flowering plants are found nowhere else in the world. TPP Parties are also home to highly diverse, unique, and valuable ecosystems, including old-growth deciduous forests and glaciers (Chile), highland tropical rainforests (Brunei), some of the world's oldest rainforests (Malaysia), globally significant seabird breeding grounds (New Zealand), the world's driest desert (Peru), and rich delta habitats (Vietnam).

<sup>69</sup> TRAFFIC, *What's Driving the Wildlife Trade? A Review of Expert Opinion on Economic and Social Drivers of the Wildlife Trade and Trade Control Efforts in Cambodia, Indonesia, Lao PDR and Vietnam* (Oct. 2008), East Asia and Pacific Region Sustainable Development Discussion Papers. East Asia and Pacific Region Sustainable Development Department, World Bank, Washington, DC, available at: [http://www.traffic.org/general-reports/traffic\\_pub\\_gen24.pdf](http://www.traffic.org/general-reports/traffic_pub_gen24.pdf).

reforms included: the establishment of an environmental ministry and an oversight agency for forestry resources and wild fauna, and new forestry and CITES legislation, which resulted in Peru being upgraded to Category 1 status under CITES. These actions were implemented in part to fulfill Peru's obligations under the United States-Peru Trade Promotion Agreement (PTPA). The United States continues to work closely with Peru to ensure that it implements its obligations under the PTPA.

Vietnam has been the subject of four recommendations to suspend trade under CITES due to compliance issues related to the making of non-detriment findings or enforcement of international trade controls for certain species.<sup>70</sup> Additionally, exports from Vietnam have been refused entry to the United States for products including medicines of pangolin, traditional medicines of musk deer, medicines of walrus, medicines of tiger, and medicines of certain sea horses. At the 16<sup>th</sup> Meeting of the Conference of the Parties to CITES (March 2013), the CITES Parties agreed to several recommendations directed to Vietnam to strengthen rhinoceros horn and elephant ivory trade controls, including the development and implementation of an ivory trade action plan.

The final environmental review of the U.S.-Singapore Free Trade Agreement concluded that although Singapore had historically 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, increasing bilateral and regional cooperation had resulted in more effective enforcement of CITES. These cooperative efforts include the establishment of the Association of Southeast Asian Nations' Wildlife Enforcement Network (ASEAN-WEN). Established in 2004, ASEAN-WEN is the world's largest wildlife enforcement network. It connects police, customs, and environment officials from the ten ASEAN countries (Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, the Philippines, Singapore, Vietnam, and Thailand). The ASEAN-WEN coordinates closely with the CITES Secretariat, Interpol, and the U.S. Fish and Wildlife Service and the U.S. Department of Justice to enhance regional law enforcement coordination efforts.

Current U.S. tariffs on wildlife imported from TPP countries are already low or zero. Therefore, the TPP is not likely to contribute to an increase in trade of wildlife or endangered species. Moreover, the United States has proposed conservation provisions in the TPP that are intended to combat wildlife trafficking. The TPP countries are also considering enhanced cooperation and capacity building related to wildlife trafficking issues. Thus, the TPP offers an opportunity to enhance ongoing efforts to protect endangered species, combat wildlife trafficking, and

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<sup>70</sup> In 2006, the CITES Secretariat recommended that Parties suspend trade with Vietnam in all specimens of cycads from families *Cycadaceae*, *Stangeriaceae*, and *Zamiaceae* due to problems with the conduct of non-detriment findings for these species. (Standing Committee Recommendation 54 (Oct. 2006)). In 2009, the CITES Standing Committee recommended that all Parties suspend trade in the Malaysian box turtle (*Cuora amboinensis*) and the Indochinese box turtle (*Cuora galbinifrons*) from Vietnam due to concerns about Vietnam's enforcement of international trade controls in relation to transit, trade, and re-exports of these two species. (Standing Committee Recommendation 58 (July 2009)). In 2010, the CITES Standing Committee recommended that Parties not accept permits issued for specimens of the orchid *Christensonia vietnamica* from Vietnam because of Vietnam's inability to make non-detriment findings for it as required under Article IV of the Convention. (Standing Committee Recommendation 59 (Dec. 2010)). In March 2013, the CITES Standing Committee recommended that all Parties suspend trade covered by Article IV of the Convention for specimens of *Hippocampus kuda* from Vietnam.

encourage legal and sustainable trade in wildlife products. The Administration welcomes public comments on wildlife trade concerns, including on opportunities for cooperation with the TPP countries to strengthen protection of endangered species.

### **3. Invasive Species**

The risk of invasive species is a transboundary issue. The risk that species from one region will become invasive in another depends in part on the ecological and climactic conditions in each country. As noted above, some TPP countries share similar geographic and climatic characteristics, thereby increasing the risk that a species will establish and spread in the event of an invasion.

The trade pathways for invasive species provide varying degrees of risk of environmental harm. Trade-related pathways that involve a risk of invasive introductions include: the movement of vehicles and conveyances used to transport commodities (e.g., ballast water in ships, shipping containers that may contain insects or other organisms), products that may contain or carry potentially invasive organisms (e.g., grains contaminated by weed seeds, insects in wooden packaging materials or on plants and plant products) and occasionally the commodity itself (e.g., certain species of ornamental plants or exotic aquarium fish).

Just as species originating in one or more TPP countries may raise environmental concerns in the United States (as discussed above), species originating in or transferred from the United States or another TPP country may potentially have harmful effects in other TPP countries. The TPP's potential incremental effect of these risks is difficult to quantify, but appears to be relatively small. As noted above, the TPP is not expected to affect TPP countries' regulatory authority and measures to monitor, prevent, and combat invasive species. Moreover, the TPP environment and SPS chapters are likely to include commitments by the countries to work together in an effort to prevent the introduction of invasive species. Thus, the TPP is expected to strengthen cooperation on research, monitoring, prevention, and control of invasive species. The Administration welcomes comments on this preliminary assessment.

### **4. Environmental Goods and Services**

Increased trade in environmentally beneficial goods and services represents an opportunity for positive environmental impacts resulting from the TPP. Environmental goods and services include a wide variety of services and technologies relevant to, for example, pollution control and waste management and natural resource protection.

TPP countries include five of the top 20 export markets for U.S. environmental technologies, and these five markets (Canada, Mexico, Japan, Singapore, and Australia) were valued at approximately \$21.1 billion of U.S. exports in 2012. The broader Asia Pacific region accounts for approximately 58 percent of the world's trade in environmental goods, and intra-regional trade is equal to over 43 percent of global trade in these products. Trade in environmental goods is increasing quickly, with an annual growth rate of 10.2 percent for the region's exports from 2006-2011. By eliminating tariffs on environmental goods and barriers to trade in environmental

services, we can expand opportunities for U.S. exporters and lower the costs of these important technologies for the countries deploying them, such as in the renewable energy and waste water treatment sectors.

The commitments that we anticipate TPP countries will undertake to enforce and enhance their environmental laws are likely to result in increased demand in these markets for environmental technologies, such as pollution monitoring and control equipment and services. More generally, addressing environmental challenges in TPP countries (*see* Section II.A) could lead to increased demand for environmental infrastructure projects and related consulting, engineering, testing and other services. The proposed market access commitments in the TPP for both environmental goods and services should provide consumers in the TPP countries with greater access to U.S. environmental technologies and services, at lower costs. In this way, the TPP market access provisions are expected to have a positive environmental impact in TPP countries and the broader Asia Pacific region. The Administration welcomes comments on this preliminary assessment.

## **5. Deforestation, Illegal Logging and Associated Trade**

Illegal logging and associated trade is a significant concern in the Asia-Pacific region. Illegal logging activities include unauthorized logging in protected areas, exceeding timber concession limits, removal of protected timber species, and other violations of national laws. It is well recognized that illegal logging and associated trade has serious economic, environmental, and social impacts. Timber producing countries, including TPP partners, reportedly lose substantial revenue to illegal logging, with estimates as high as \$10 billion a year.<sup>71</sup> Products from illegally-harvested timber span the entire value chain, from logs and sawn timber to wood flooring and furniture. Trade in illegally sourced wood distorts markets, undermines efforts towards responsible forest management, and exacerbates deforestation trends. Further, illegal logging increases threats to endangered species as the resulting deforestation or forest degradation destroys habitats, and unauthorized logging roads open access to remote areas for wildlife poachers.

Not surprisingly given its nature, there is limited data on the extent of this activity. The estimates that exist, however, indicate that the scale of the problem is substantial. A Brookings Institution report concluded that illegal logging constitutes a large portion of forest destruction in the Asia-Pacific region.<sup>72</sup> Chatham House, a British research institution, estimated that worldwide 100 million cubic meters of timber are cut illegally each year, leading to the possible

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<sup>71</sup> The World Bank, *Strengthening Forest Law Enforcement and Governance: Addressing a Systemic Constraint to Sustainable Development*,” Report No. 36638-GLB (Aug. 2006), available at: [http://siteresources.worldbank.org/INTFORESTS/Resources/ForestLawFINAL\\_HI\\_RES\\_9\\_27\\_06\\_FINAL\\_web.pdf](http://siteresources.worldbank.org/INTFORESTS/Resources/ForestLawFINAL_HI_RES_9_27_06_FINAL_web.pdf).

<sup>72</sup> Vanda Felbab-Brown, *Not as Easy as Falling Off a Log: The Illegal Logging Trade in the Asia-Pacific Region and Possible Mitigation Strategies*, Foreign Policy at Brookings, Working Paper No. 5, at 8 (Mar. 2011), available at: [http://www.brookings.edu/~media/research/files/papers/2011/3/illegal%20logging%20felbabbrown/03\\_illegal\\_logging\\_felbabbrown](http://www.brookings.edu/~media/research/files/papers/2011/3/illegal%20logging%20felbabbrown/03_illegal_logging_felbabbrown).

destruction of five million hectares (over 12 million acres) of forest annually.<sup>73</sup> A report of an Australian research institute likewise concluded that there is general consensus that the extent of illegal timber trade in the Asia-Pacific region is substantial.<sup>74</sup>

Most forest products already enter the United States duty-free, although certain products, such as tropical hardwood plywood and certain kinds of flooring face low duties. Therefore, the reduction and elimination of duties under the TPP is not likely to have a significant impact on U.S. demand for TPP country forest products. Canada and Australia also maintain generally low duties on wood products while the other major TPP consuming market, Japan, has already lowered its duties on wood products from Brunei, Malaysia, and Vietnam under its trade agreement with ASEAN. Hence, reduction and elimination of duties under TPP would not be expected to lead to significant increases in TPP country production and exports from countries with environmentally sensitive tropical forests.

Other potential drivers of deforestation in TPP countries include land use change and forest conversion associated with agricultural production, conflicts over forest tenure, mining, and palm oil production. Existing duties on mined ores and palm oil products in the United States and major TPP markets are generally low already. Thus, the liberalization of trade in these products under the agreement is not expected to lead to substantial increases in production in TPP countries for these products. For some TPP countries, greater agricultural export opportunities could encourage land use conversion away from forest to agriculture, but additional liberalization of trade in the forest sector would to some extent likely provide an offsetting economic incentive to keep land in forest use. Accordingly, the liberalization of trade under the TPP would likely have only a minimal effect on logging (legal or illegal) in TPP countries and, therefore, is not expected to put greater pressure on forest resources or exacerbate existing illegal logging conditions.

Apart from the anticipated economic effects, the TPP provides an opportunity to address concerns relating to deforestation and illegal logging and associated trade. The United States has proposed conservation provisions intended to strengthen TPP countries' efforts to combat illegal logging and associated trade. The TPP countries are also contemplating greater cooperation, information sharing, and capacity building under the TPP aimed at improving forest management and combating illegal logging and associated trade. If implemented, these sorts of measures would be expected to result in a positive environmental impact in TPP countries and the Asia Pacific region. The Administration welcomes comments on this preliminary assessment.

## **6. Marine Fisheries**

TPP countries constitute major players in the global fishing sector. TPP countries (including the

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<sup>73</sup> Sam Lawson and Larry McFaul, *Illegal Logging and Related Trade: Indicators of Global Response*, Chatham House, at xvii (July 2010), available at: <http://www.cfr.org/trade/chatham-house-illegal-logging-related-trade-indicators-global-response/p22646>.

<sup>74</sup> Andreas Schloenhardt, *The illegal trade in timber and timber products in the Asia-Pacific region*, Australian Institute of Criminology, Research and Public Policy Series No. 89, at 2 (2008), available at: <http://www.aic.gov.au/documents/B/D/4/%7BBBD4B2E50-33B4-47F1-815E-901C0ACC7A43%7Drpp89.pdf>.

United States) represented just over 30 percent of global marine catch in 2011 and include five of the top ten global producers of marine wild capture fishing.<sup>75</sup> The value of TPP countries' imports and exports in fishery products was approximately \$62 billion in 2010.<sup>76</sup> The continued productivity of the Pacific fisheries, however, is threatened by fully or overexploited fisheries and declining fish stocks. Among the world's top ten fished species, the FAO reports that anchoveta and Chub mackerel stocks in the Southeast Pacific and Alaska Pollock in the North Pacific are fully exploited, while Japanese anchovy and the largehead hairtail in the Northwest Pacific and Chilean jack mackerel in the Southeast Pacific are all overexploited.<sup>77</sup>

The majority of fishery products already enter the United States duty-free, with most of the remainder facing low duties of between three and seven percent.<sup>78</sup> Because duties are zero or low for the large majority of fishery products, reduction and elimination of U.S. duties is not likely to have a significant effect on U.S. demand for these products. The other large consuming market among TPP countries is Japan, which is the biggest single-country market for fishery products in the world.<sup>79</sup> Japan applies duties of five to 15 percent on most fishery products. However, most of the TPP countries that are major fish and seafood producers, including Peru, Chile, Vietnam, and Mexico, already receive preferential (largely duty-free) access to the Japanese market under existing trade agreements. The United States is the only major TPP producer that does not already have preferential access to the Japanese market. Additionally, the Japanese market is characterized by stable to slightly declining demand for fishery products.<sup>80</sup> Hence, reduction and elimination of duties under the TPP would not be expected to significantly alter production and export volumes of fishery products. Accordingly, trade liberalization under the TPP is not likely to put substantially greater pressure on fisheries resources. The Administration welcomes comments on this preliminary assessment.

### **Fishing Practices**

While data on illegal, unreported, and unregulated (IUU) fishing is difficult to collect, the value of IUU fishing is estimated at \$5.8 billion across the broader Asia-Pacific region.<sup>81</sup> IUU fishing undermines conservation and management efforts for sustainable fisheries. It impairs the ability of governments to support sustainable livelihoods of fishermen and achieve food security. IUU fishing deprives fisheries managers of information critical for accurate stock assessments and estimates of impacts on protected species. It also exacerbates the problem of discards and bycatch because vessels engaged in illegal activity are likely to use unsustainable fishing practices and non-selective gear. The use of flags of convenience, as well as ports of

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<sup>75</sup> FAO, *Global Capture Production*, Fishery Statistical Collections.

<sup>76</sup> FAO 2010 Yearbook of Fishery and Aquaculture Statistics. The United States is historically one of the world's largest importers, with imports of \$15.5 billion in 2010.

<sup>77</sup> FAO, *The State of World Fisheries and Aquaculture 2012*, FAO Fisheries and Aquaculture Department (2012).

<sup>78</sup> There are higher duties (of 15-35 percent) charged on a few specialty items, such as sturgeon roe, and specific duties (generally 1.1 cents per kilogram) charged on several items, including sole.

<sup>79</sup> FAO, *The State of World Fisheries and Aquaculture 2012*, FAO Fisheries and Aquaculture Department (2012).

<sup>80</sup> FAO, *Consumption of Fish and Fishery Products*, Fishery Statistical Collections.

<sup>81</sup> Robin Lungren, Derek Staples, Simon Funge-Smith, and Jesper Clausen, *Status and Potential of Fisheries and Aquaculture in Asia and the Pacific*, at 46, Asia-Pacific Fishery Commission and FAO Regional Office for Asia and the Pacific (2006), available at: <ftp://ftp.fao.org/docrep/fao/009/ag110e/ag110e00.pdf>.

convenience, facilitates the scope and extent of IUU fishing activities.

Recognizing these issues and following the development of the Food and Agriculture Organization's International Plan of Action to Prevent, Deter, and Eliminate IUU fishing,<sup>82</sup> many regional fishery management organizations (RFMOs) have adopted IUU vessel lists and call upon member countries to deny port access and services to vessels identified on such lists. Several RFMOs have also taken steps to strengthen monitoring and compliance to better address IUU fishing. For example, establishing catch documentation schemes to track the trade of fisheries products, requiring vessel monitoring systems and observer programs, and creating a high seas boarding and inspection program. Many, but not all, of the TPP countries are members of one or more RFMOs in which the United States also participates. These include the Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR), the Inter-American Tropical Tuna Commission (IATTC), the South Pacific Regional Fisheries Management Organization (SPRFMO), and the Western and Central Pacific Fisheries Commission (WCPFC).

The United States already engages cooperatively with TPP countries through the RFMOs and other mechanisms to combat IUU fishing. The United States works extensively with Australia and New Zealand through CCAMLR, WCPFC, and the International Monitoring, Control and Surveillance Network, which is a voluntary organization of national government representatives established to improve the efficiency of fisheries-related activities. Chile and the United States have cooperated on a series of capacity building activities, and the U.S. Department of Commerce's National Oceanic and Atmospheric Administration (NOAA) and the National Fisheries Service of Chile signed a Memorandum of Understanding in 1995 to further such collaboration. Similarly, NOAA is working with Peru and Vietnam to strengthen their ability to manage fisheries effectively.

The TPP also provides an opportunity to address these challenges. The TPP countries are considering commitments in the TPP that would promote actions to combat IUU fishing. Moreover, enhanced environmental cooperation and capacity building under the TPP would likely strengthen TPP countries' ability to combat IUU fishing. Thus, the TPP provides an opportunity to reduce the levels of IUU fishing and its detrimental environmental impacts. The Administration welcomes public comment on the possible impacts of the TPP on IUU fishing.

### **Fisheries Subsidies**

TPP countries include six of the top 20 global producers of marine capture fisheries products by volume. Other TPP countries are significant consumers and traders in these products.

According to the Food and Agriculture Organization, roughly 85 percent of global stocks are at

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<sup>82</sup> The IPOA-IUU encourages states and Regional Fishery Management Organizations to use all available measures in accordance with international law to combat IUU fishing. These include flag state, port state, and coastal state measures, market-related measures, national legislation, sanctions, economic incentives, education, and monitoring, control, and surveillance systems. See FAO, *International Plan of Action to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing* (2001), available at: <http://www.fao.org/docrep/003/y1224e/y1224e00.htm>.

risk and are classified as fully exploited, overexploited, depleted, or recovering from depletion.<sup>83</sup> Additional fisheries are likely to suffer similar declines if present trends continue. Subsidies that contribute to overfishing and overcapacity distort trade and contribute to the depletion of a critical natural resource, and make it more difficult for countries to sustainably manage their own fisheries resources.

The United States has long identified disciplines on fisheries subsidies as a key area in which trade agreements can contribute to environmental conservation and sustainable development. The TPP provides an opportunity to address environmentally harmful fisheries subsidies. The United States has proposed to include in the TPP: (i) a prohibition of certain harmful fisheries subsidies that directly enhance fishing capacity and activity; (ii) a prohibition on subsidies for fishing overfished stocks; and (iii) enhanced transparency relevant to the fisheries sector. Fisheries programs that have potential environmental benefits, such as programs for conservation-related and environment-enhancing activities, would not be affected under the U.S. proposal.

Stronger disciplines on harmful fisheries subsidies would address one of the main drivers of overcapacity and unsustainable levels of fishing. Stronger subsidy disciplines should also contribute to improved fisheries management, including efforts to address IUU fishing activities. The TPP countries are also contemplating greater cooperation and capacity building relating to fisheries management issues. If implemented, these measures would be expected to have beneficial environmental impacts in TPP countries and the region more broadly. The Administration welcomes comments on this preliminary assessment.

## **7. Coastal and Marine Ecosystems**

The Pacific Ocean accounts for half of the world's ocean area and almost one third of the Earth's surface. The coastlines of the TPP countries total more than 78,000 kilometers. Pacific coastal and marine ecosystems contain an abundance of natural resources and are extremely important to food security, jobs, and economic development. Significant ecosystems of the Pacific include the world's largest coral reef, extensive continental shelf fisheries, and temperate kelp forests. From this diversity, TPP countries produce products for international trade and national use, including: fish, kelp and other sea-plant resources, oil and minerals, aquacultural products, tourism and recreation, and more.

Activities associated with economic growth, such as expansion of coastal urbanization, port development and navigation routes, tourism infrastructure, coastal fisheries and aquaculture practices, and land-based and ocean-based marine pollution can have significant and direct impacts on the resilience of natural coastal-marine ecosystems. Increased trade could increase transportation-related impacts on Pacific ecosystems. Currently, the Pacific has a high density of shipping, fishing, and transiting vessel activity that will likely increase as trade increases. Greater vessel activity has the potential to increase the risk of oil and ship-based pollution,

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<sup>83</sup> FAO, *The State of World Fisheries and Aquaculture 2012*, FAO Fisheries and Aquaculture Department (2012).

impact marine life, and cause destruction to the marine environment.<sup>84</sup> In addition, increased coastal development can lead to coastal habitat degradation. Biological diversity may be threatened by land-based agricultural activities that cause runoff and sedimentation of near shore waters. For example, shrimp farming in Vietnam and Malaysia has led to loss of mangroves and subsequent erosion.

Marine parks, sanctuaries, reserves, monuments, special management areas, estuaries, research areas, no-take areas, wildlife refuges, and other forms of strict or cooperative protection have been established in TPP and other Asia-Pacific countries in order to protect marine ecosystems and species.<sup>85</sup> Moreover, all of the TPP countries are parties to the Protocol of 1978 Relating to the International Convention for the Prevention of Pollution from Ships (commonly known as the MARPOL Convention), which seeks to prevent and control marine pollution from ships.

Further, the TPP and the interconnected nature of shared Pacific resources create opportunities for knowledge-sharing, cooperation, and capacity building among TPP countries. Through environmental cooperation and capacity building under the TPP, the United States can work with TPP countries to implement critical marine pollution conventions, promote ecosystem-based management of areas of common conservation concern, encourage the establishment of new marine protected areas and the adoption of best management practices for existing areas, and support ongoing regional initiatives. The Administration welcomes public comment on this issue.

#### **D. Potential Regulatory Impacts**

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

FTA obligations related to investment, services, government procurement, and SPS and TBT measures can have particular significance for domestic regulatory practices concerning the environment, health, and safety. Previous environmental reviews, including the interim and final reviews for the Chile, Singapore, Dominican Republic-Central America, Peru, Colombia, and Korea FTAs, considered potential impacts on the U.S. regulatory regime with respect to such obligations and found that the respective trade agreements were not anticipated to have a negative impact on U.S. legal or regulatory authority or practices. Further, the reviews noted the potentially positive impact that the FTAs could have on the U.S. environmental regulatory

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<sup>84</sup> Plastic waste is of particular concern in the Pacific Ocean, choking marine life, impairing ship transit and washing onto shores. Ships are significant contributors to marine debris globally and to "garbage patches" in the eastern and western equatorial areas of the Pacific Ocean.

<sup>85</sup> Some of the most unique ecosystems in the Pacific Ocean are under some type of protection and are included in the list of the world's largest marine protected areas, including Phoenix Islands (Kiribati), Papahānaumokuākea Marine National Monument (United States), Mariana Trench Marine National Monument (United States), Great Barrier Reef (Australia), Galapagos Islands (Ecuador), and Salas y Gómez Islands (Chile).

regime as a result of commitments to effectively enforce U.S. environmental laws, not to weaken U.S. environmental laws to attract trade or investment, and to ensure that U.S. environmental laws and policies provide for high levels of environmental protection.

Based on this previous analysis, and assuming that the core obligations in these areas will be similar to those undertaken in the previous FTAs, the Administration does not expect that the TPP would have a negative impact on the ability of U.S. government authorities, including state, local and tribal authorities, to enforce or maintain U.S. environmental laws or regulations. For a more in depth analysis of general FTA commitments and their potential regulatory impacts in the United States, please see the interim and final reviews for the above mentioned FTAs.<sup>86</sup> Additionally, any new obligations in the TPP related to regulatory coherence would similarly be expected to allow U.S. regulators sufficient flexibility to regulate in the public interest. The Administration welcomes comments on this preliminary finding.

## **Investment**

The Trade Act attempts to strike a balance between the rights of U.S. investors abroad and the preservation of the ability of the federal government and state and local governments to regulate with respect to health, safety, and the environment, by establishing negotiating objectives with respect to both substantive investment provisions of particular concern (notably provisions on expropriation and “fair and equitable treatment”) and procedures for resolving disputes between Parties and investors (the investor-State dispute settlement mechanism).

Following Trade Act guidance, and after consultations with interested stakeholders, the Administration has included a number of substantive clarifications and procedural innovations in Investment Chapters of recent FTAs.<sup>87</sup>

The Administration is seeking similar provisions in the TPP, including: clarifications of the definitions for expropriation and minimum standard of treatment (“fair and equitable treatment”); increased transparency in the administration of the trade and investment regime; and provisions to establish fair, transparent, timely and effective procedures to settle disputes. Based on the previous analysis, we do not expect that the TPP will result in a significant potential for negative impacts on U.S. environmental measures. The Administration invites comments on this preliminary finding.

## **IV. ENVIRONMENTAL COOPERATION**

The Trade Act provides that a principal negotiating objective of the United States is to strengthen the capacity of U.S. trading partners to protect the environment through the promotion of sustainable development. In addition, the Trade Act instructs negotiators to seek to establish

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<sup>86</sup> The environmental reviews are available on the USTR website at: <http://www.ustr.gov/trade-topics/environment/environmental-reviews>.

<sup>87</sup> A fuller discussion of these and other relevant investment provisions and their potential regulatory impact is provided in the final environmental review of the United States – Peru Trade Promotion Agreement. See <http://www.ustr.gov/trade-topics/environment/environmental-reviews>.

consultative mechanisms among parties to trade agreements to strengthen the capacity of U.S. trading partners to develop and implement standards for the protection of the environment and human health based on sound science. Environmental cooperation is expected to be an important element of the TPP environment chapter.

The United States and the TPP countries already work together to address environmental issues through a number of ongoing projects. The United States also works with TPP countries through multilateral and regional mechanisms such as the United Nations Environment Program, the World Bank, the International Tropical Timber Organization, and regional fisheries management organizations. In addition, several U.S. Government agencies have regional and bilateral environment programs in the TPP countries, including the Department of State, the Department of the Interior, the Department of Commerce, and the Environmental Protection Agency. Annex IV provides examples of recent environmental cooperation activities that federal agencies are undertaking with TPP countries.

The United States expects the TPP to include environmental cooperation provisions that would provide a framework for cooperative activities between the United States and the TPP countries, and would be expected to contribute to regional, as well as national efforts to protect, improve, and conserve the environment. The cooperation provisions would be expected to enhance public participation in environmental cooperation activities and encourage the use of public-private partnerships. The Administration welcomes public comments on the general approach to cooperation in the context of the TPP, as well as on objectives and priorities for cooperative activities.

## **Annex I**

### **Organizations Providing Comments**

- C. Fred Bergsten and Jeffrey J. Schott (Jan. 25, 2010)
- Center for International Environmental Law, Earthjustice, Environmental Investigation Agency, Friends of the Earth US, Sierra Club (Jan. 25, 2010)
- Defenders of Wildlife, Earthjustice, Environmental Investigation Agency, Friends of the Earth US, Sierra Club (June 1, 2010)
- Humane Society International (Jan. 25, 2010)
- Humane Society International (June 1, 2010)
- Humane Society International (Nov. 19, 2010)
- National Fisheries Institute (Jan. 25, 2010)
- Oceana (Jan. 25, 2010)
- Jonas Sundstrom (June 1, 2010)
- Trade and Environment Policy Advisory Committee (October 8, 2010)

## Annex II

### Data Tables

TABLE 1: U.S. total exports and general imports, by specified country, 2010–12

Country	2010	2011	2012	Change, 2012 from 2010	
	<i>Million dollars</i>			Absolute	Percent
U.S. total exports:					
Australia	21,803	27,516	31,208	9,405	43.1
Brunei	124	184	157	33	26.5
Canada	248,194	280,764	291,758	43,564	17.6
Chile	10,871	15,873	18,886	8,014	73.7
Japan	60,545	66,168	70,046	9,501	15.7
Malaysia	13,982	14,218	12,854	-1,128	-8.1
Mexico	163,321	197,544	216,331	53,010	32.5
New Zealand	2,821	3,571	3,223	402	14.3
Peru	6,749	8,319	9,357	2,608	38.6
Singapore	29,150	31,393	30,561	1,411	4.8
Vietnam	3,710	4,341	4,623	913	24.6
Subtotal	561,271	649,892	689,005	127,734	22.8
All other	716,233	830,661	857,451	141,218	19.7
Total	1,277,504	1,480,552	1,546,455	268,951	21.1
U.S. general imports:					
Australia	8,580	10,239	9,535	954	11.1
Brunei	12	23	86	74	626.4
Canada	276,447	316,371	324,230	47,784	17.3
Chile	7,000	9,068	9,380	2,380	34.0
Japan	120,347	128,811	146,387	26,040	21.6
Malaysia	25,904	25,772	25,933	29	0.1
Mexico	229,652	263,068	277,650	47,998	20.9
New Zealand	2,768	3,160	3,439	671	24.2
Peru	5,037	6,142	6,426	1,389	27.6
Singapore	17,478	19,111	20,224	2,746	15.7
Vietnam	14,867	17,485	20,266	5,398	36.3
Subtotal	708,093	799,250	843,558	135,464	19.1
All other	1,193,394	1,395,474	1,430,588	237,194	19.9
Total	1,901,487	2,194,724	2,274,145	372,658	19.6

Source: Compiled from official statistics of the U.S. Department of Commerce.

Note: Calculations based on unrounded data. Import data do not include U.S. Virgin Island imports. Import figures are based on customs value. Export figures are based on f.a.s. value, U.S. port of export.

TABLE 1: U.S. total exports and general imports, by sector, 2010–12

Sector	2010	2011	2012	Change, 2012 from 2010	
				Absolute	Percent
<i>Million dollars</i>					
U.S. total exports:					
Agricultural products	53,990	64,687	66,282	12,292	22.8
Forest products	19,519	20,092	20,235	715	3.7
Chemicals and related products	83,849	94,045	98,777	14,928	17.8
Energy-related products	38,382	58,491	60,830	22,447	58.5
Textiles and apparel	9,986	11,158	11,758	1,772	17.7
Footwear	594	655	694	99	16.7
Minerals and metals	49,750	58,887	59,935	10,185	20.5
Machinery	52,639	60,433	66,450	13,811	26.2
Transportation equipment	115,000	132,654	150,553	35,552	30.9
Electronic products	106,259	115,109	118,065	11,806	11.1
Miscellaneous manufactures	13,742	14,825	15,964	2,222	16.2
Special provisions	17,559	18,856	19,463	1,904	10.8
<b>Total</b>	<b>561,271</b>	<b>649,892</b>	<b>689,005</b>	<b>127,734</b>	<b>22.8</b>
U.S. general imports:					
Agricultural products	46,253	53,865	56,197	9,943	21.5
Forest products	19,832	19,909	19,942	110	0.6
Chemicals and related products	57,077	65,166	65,791	8,714	15.3
Energy-related products	119,583	151,526	147,051	27,468	23.0
Textiles and apparel	17,018	18,605	18,949	1,932	11.4
Footwear	2,023	2,488	2,965	941	46.5
Minerals and metals	61,087	74,695	72,868	11,781	19.3
Machinery	49,307	58,345	63,252	13,946	28.3
Transportation equipment	171,363	189,606	224,100	52,737	30.8
Electronic products	126,761	125,993	129,474	2,713	2.1
Miscellaneous manufactures	14,047	14,536	15,686	1,638	11.7
Special provisions	23,742	24,516	27,283	3,541	14.9
<b>Total</b>	<b>708,093</b>	<b>799,250</b>	<b>843,558</b>	<b>135,464</b>	<b>19.1</b>

Source: Compiled from official statistics of the U.S. Department of Commerce.

Note: Calculations based on unrounded data. Import data do not include U.S. Virgin Island imports. Import figures are based on customs value. Export figures are based on f.a.s. value, U.S. port of export. Special provisions includes exports under chapter 98 of Schedule B and imports under chapters 98 and 99 of the Harmonized Tariff Schedule of the United States (HTS). The sectors listed include all products classified in chapters 1-97 of Schedule B and the HTS.

TABLE 1: Selected U.S. imports, by major industry/commodity sectors, 2012

Sector	U.S. imports for consumption	Dutiable imports	Calculated duties collected	Dutiable import share	Weighted average duty
	<i>Thousand dollars</i>			<i>Percent</i>	
Agricultural products	56,102,181	4,147,571	108,835	7.4	2.6
Forest products	19,949,469	189,749	10,670	1.0	5.6
Chemicals and related products	66,170,925	8,271,081	360,099	12.5	4.4
Energy-related products	145,201,286	25,653,084	27,895	17.7	0.1
Textiles and apparel	18,550,671	9,066,158	1,510,053	48.9	16.7
Footwear	2,942,755	2,365,839	296,619	80.4	12.5
Minerals and metals	73,223,295	4,024,367	189,601	5.5	4.7
Machinery	62,815,679	13,173,282	389,521	21.0	3.0
Transportation equipment	222,877,858	60,402,142	1,588,269	27.1	2.6
Electronic products	128,866,090	11,872,539	357,461	9.2	3.0
Miscellaneous manufactures	15,642,368	1,540,324	114,608	9.8	7.4
Special provisions	27,474,522	6,075,123	49,068	22.1	0.8
Total	839,817,100	146,781,259	5,002,700	17.5	3.4

Source: Compiled from official statistics of the U.S. Department of Commerce.

Note: Calculations based on unrounded data. Import data do not include U.S. Virgin Island imports. Import figures are based on customs value. Dutiable import share is dutiable imports divided by imports for consumption. Weighted average duty is calculated duties collected divided by dutiable imports. Special provisions include imports under chapters 98 and 99 of the Harmonized Tariff Schedule of the United States.

TABLE 2 FTA partners – Australia, Canada, Chile, Mexico, Peru, and Singapore: U.S. total exports and general imports, by sector, 2010–12

Sector	2010	2011	2012	Change, 2012 from 2010	
				Absolute	Percent
<i>Million dollars</i>					
U.S. total exports:					
Agricultural products	38,549	46,187	48,506	9,957	25.8
Forest products	17,036	17,365	17,532	496	2.9
Chemicals and related products	70,603	79,886	84,068	13,464	19.1
Energy-related products	35,326	54,661	57,073	21,747	61.6
Textiles and apparel	9,261	10,381	10,877	1,615	17.4
Footwear	463	503	556	93	20.2
Minerals and metals	44,939	53,250	55,092	10,153	22.6
Machinery	47,436	54,523	60,909	13,473	28.4
Transportation equipment	104,420	121,135	135,738	31,319	30.0
Electronic products	85,356	93,574	95,981	10,625	12.4
Miscellaneous manufactures	11,735	12,810	13,845	2,110	18.0
Special provisions	14,963	17,136	17,923	2,960	19.8
<b>Total</b>	<b>480,088</b>	<b>561,409</b>	<b>598,100</b>	<b>118,012</b>	<b>24.6</b>
U.S. general imports:					
Agricultural products	40,274	46,407	48,786	8,512	21.1
Forest products	18,728	18,878	18,840	112	0.6
Chemicals and related products	43,416	50,827	51,270	7,853	18.1
Energy-related products	118,230	150,221	145,805	27,575	23.3
Textiles and apparel	8,567	9,044	8,918	351	4.1
Footwear	392	434	550	158	40.4
Minerals and metals	54,354	66,247	63,196	8,841	16.3
Machinery	32,642	37,481	40,492	7,850	24.0
Transportation equipment	118,139	133,187	152,915	34,776	29.4
Electronic products	80,973	81,358	84,086	3,113	3.8
Miscellaneous manufactures	9,120	9,525	10,049	928	10.2
Special provisions	19,358	20,389	22,539	3,181	16.4
<b>Total</b>	<b>544,195</b>	<b>623,999</b>	<b>647,446</b>	<b>103,251</b>	<b>19.0</b>

Source: Compiled from official statistics of the U.S. Department of Commerce.

Note: Calculations based on unrounded data. Import data do not include U.S. Virgin Island imports. Import figures are based on customs value. Export figures are based on f.a.s. value, U.S. port of export. Special provisions includes exports under chapter 98 of Schedule B and imports under chapters 98 and 99 of the Harmonized Tariff Schedule of the United States (HTS). The sectors listed include all products classified in chapters 1-97 of Schedule B and the HTS.

TABLE 2 FTA partners – Australia, Canada, Chile, Mexico, Peru, and Singapore: Selected U.S. imports, by major industry/commodity sectors, 2012

Sector	U.S. imports for	Dutiable	Calculated	Dutiable	Weighted
	consumption	imports	duties	import	average
	<i>Thousand dollars</i>			<i>Percent</i>	
Agricultural products	48,733,453	1,535,127	46,101	3.2	3.0
Forest products	18,839,827	13,591	784	0.1	5.8
Chemicals and related products	52,125,085	864,091	39,442	1.7	4.6
Energy-related products	144,159,373	24,768,709	21,225	17.2	0.1
Textiles and apparel	8,915,428	408,515	56,325	4.6	13.8
Footwear	550,077	13,404	2,056	2.4	15.3
Minerals and metals	63,314,132	580,755	21,784	0.9	3.8
Machinery	40,426,531	2,586,956	70,983	6.4	2.7
Transportation equipment	152,580,665	4,764,441	127,437	3.1	2.7
Electronic products	83,682,529	2,975,737	79,994	3.6	2.7
Miscellaneous manufactures	10,017,436	221,282	12,897	2.2	5.8
Special provisions	22,595,183	4,583,032	46,169	20.3	1.0
<b>Total</b>	<b>645,939,718</b>	<b>43,315,640</b>	<b>525,198</b>	<b>6.7</b>	<b>1.2</b>

Source: Compiled from official statistics of the U.S. Department of Commerce.

Note: Calculations based on unrounded data. Import data do not include U.S. Virgin Island imports. Import figures are based on customs value. Dutiable import share is dutiable imports divided by imports for consumption. Weighted average duty is calculated duties collected divided by dutiable imports. Special provisions include imports under chapters 98 and 99 of the Harmonized Tariff Schedule of the United States.

TABLE 3 Non-FTA partners – Brunei, Japan, Malaysia, New Zealand, and Vietnam: U.S. total exports and general imports, by sector, 2010–12

Sector	2010	2011	2012	Change, 2012 from 2010	
				Absolute	Percent
<i>Million dollars</i>					
U.S. total exports:					
Agricultural products	15,440	18,500	17,776	2,335	15.1
Forest products	2,483	2,727	2,702	219	8.8
Chemicals and related products	13,246	14,160	14,709	1,463	11.0
Energy-related products	3,057	3,830	3,757	701	22.9
Textiles and apparel	725	776	882	157	21.7
Footwear	132	153	137	6	4.3
Minerals and metals	4,811	5,637	4,844	33	0.7
Machinery	5,203	5,910	5,541	338	6.5
Transportation equipment	10,580	11,520	14,814	4,234	40.0
Electronic products	20,903	21,535	22,084	1,182	5.7
Miscellaneous manufactures	2,007	2,014	2,119	112	5.6
Special provisions	2,596	1,720	1,540	-1,056	-40.7
<b>Total</b>	<b>81,183</b>	<b>88,482</b>	<b>90,904</b>	<b>9,722</b>	<b>12.0</b>
U.S. general imports:					
Agricultural products	5,979	7,457	7,411	1,431	23.9
Forest products	1,105	1,031	1,102	-2	-0.2
Chemicals and related products	13,660	14,339	14,521	861	6.3
Energy-related products	1,353	1,305	1,246	-107	-7.9
Textiles and apparel	8,450	9,561	10,031	1,581	18.7
Footwear	1,632	2,054	2,415	783	48.0
Minerals and metals	6,733	8,448	9,673	2,939	43.7
Machinery	16,665	20,863	22,760	6,095	36.6
Transportation equipment	53,224	56,418	71,185	17,961	33.7
Electronic products	45,788	44,635	45,387	-400	-0.9
Miscellaneous manufactures	4,927	5,011	5,637	710	14.4
Special provisions	4,384	4,127	4,744	361	8.2
<b>Total</b>	<b>163,898</b>	<b>175,250</b>	<b>196,112</b>	<b>32,213</b>	<b>19.7</b>

Source: Compiled from official statistics of the U.S. Department of Commerce.

Note: Calculations based on unrounded data. Import data do not include U.S. Virgin Island imports. Import figures are based on customs value. Export figures are based on f.a.s. value, U.S. port of export. Special provisions includes exports under chapter 98 of Schedule B and imports under chapters 98 and 99 of the Harmonized Tariff Schedule of the United States (HTS). The sectors listed include all products classified in chapters 1-97 of Schedule B and the HTS.

TABLE 3 Non-FTA partners – Brunei, Japan, Malaysia, New Zealand, and Vietnam: Selected U.S. imports, by major industry/commodity sectors, 2012

Sector	U.S. imports for consumption	Dutiable imports	Calculated duties collected	Dutiable import share	Weighted average duty
	<i>Thousand dollars</i>			<i>Percent</i>	
Agricultural products	7,368,729	2,612,444	62,734	35.5	2.4
Forest products	1,109,641	176,158	9,886	15.9	5.6
Chemicals and related products	14,045,840	7,406,989	320,657	52.7	4.3
Energy-related products	1,041,914	884,375	6,670	84.9	0.8
Textiles and apparel	9,987,801	8,738,892	1,457,867	87.5	16.7
Footwear	2,392,678	2,352,435	294,564	98.3	12.5
Minerals and metals	9,556,606	3,362,362	163,678	35.2	4.9
Machinery	22,389,148	10,586,326	318,538	47.3	3.0
Transportation equipment	70,297,193	55,637,701	1,460,832	79.1	2.6
Electronic products	45,183,561	8,896,803	277,467	19.7	3.1
Miscellaneous manufactures	5,624,932	1,319,042	101,711	23.4	7.7
Special provisions	4,879,339	1,492,091	2,899	30.6	0.2
Total	193,877,382	103,465,619	4,477,502	53.4	4.3

Source: Compiled from official statistics of the U.S. Department of Commerce.

Note: Calculations based on unrounded data. Import data do not include U.S. Virgin Island imports. Import figures are based on customs value. Dutiable import share is dutiable imports divided by imports for consumption. Weighted average duty is calculated duties collected divided by dutiable imports. Special provisions include imports under chapters 98 and 99 of the Harmonized Tariff Schedule of the United States.

TABLE 4 Australia: U.S. total exports and general imports, by sector, 2010–12

Sector	2010	2011	2012	Change, 2012 from 2010	
				Absolute	Percent
	<i>Million dollars</i>				
U.S. total exports:					
Agricultural products	1,119	1,423	1,544	425	37.9
Forest products	515	534	529	14	2.8
Chemicals and related products	3,686	3,907	4,170	483	13.1
Energy-related products	303	496	447	144	47.7
Textiles and apparel	252	278	297	44	17.6
Footwear	12	18	16	4	30.5
Minerals and metals	1,472	1,649	1,245	-227	-15.4
Machinery	2,666	3,566	4,551	1,885	70.7
Transportation equipment	6,170	8,858	11,283	5,113	82.9
Electronic products	3,815	4,452	4,676	861	22.6
Miscellaneous manufactures	585	914	852	268	45.8
Special provisions	1,207	1,422	1,599	391	32.4
<b>Total</b>	<b>21,803</b>	<b>27,516</b>	<b>31,208</b>	<b>9,405</b>	<b>43.1</b>
U.S. general imports:					
Agricultural products	2,354	2,401	2,703	348	14.8
Forest products	100	93	114	14	13.6
Chemicals and related products	958	1,136	1,007	49	5.1
Energy-related products	269	398	262	-7	-2.7
Textiles and apparel	39	46	31	-8	-20.0
Footwear	4	5	6	1	31.6
Minerals and metals	1,697	2,628	2,174	476	28.1
Machinery	297	341	360	63	21.2
Transportation equipment	477	724	828	351	73.7
Electronic products	979	1,050	934	-45	-4.6
Miscellaneous manufactures	880	751	402	-478	-54.3
Special provisions	524	667	714	190	36.2
<b>Total</b>	<b>8,580</b>	<b>10,239</b>	<b>9,535</b>	<b>954</b>	<b>11.1</b>

Source: Compiled from official statistics of the U.S. Department of Commerce.

Note: Calculations based on unrounded data. Import data do not include U.S. Virgin Island imports. Import figures are based on customs value. Export figures are based on f.a.s. value, U.S. port of export. Special provisions includes exports under chapter 98 of Schedule B and imports under chapters 98 and 99 of the Harmonized Tariff Schedule of the United States (HTS). The sectors listed include all products classified in chapters 1-97 of Schedule B and the HTS.

TABLE 4 Australia: Selected U.S. imports, by major industry/commodity sectors, 2012

Sector	U.S. imports for consumption	Dutiable imports	Calculated duties collected	Dutiable import share	Weighted average duty
	<i>Thousand dollars</i>			<i>Percent</i>	
Agricultural products	2,697,667	839,603	19,088	31.1	2.3
Forest products	114,087	396	14	0.3	3.4
Chemicals and related products	1,006,514	29,510	1,534	2.9	5.2
Energy-related products	302,223	554	5	0.2	0.8
Textiles and apparel	31,371	20,102	1,540	64.1	7.7
Footwear	5,659	593	55	10.5	9.2
Minerals and metals	2,181,029	15,375	632	0.7	4.1
Machinery	359,073	47,461	1,259	13.2	2.7
Transportation equipment	826,624	70,882	1,892	8.6	2.7
Electronic products	930,633	68,102	1,666	7.3	2.4
Miscellaneous manufactures	401,884	7,862	458	2.0	5.8
Special provisions	717,421	50,969	44	7.1	0.1
Total	9,574,186	1,151,408	28,185	12.0	2.4

Source: Compiled from official statistics of the U.S. Department of Commerce.

Note: Calculations based on unrounded data. Import data do not include U.S. Virgin Island imports. Import figures are based on customs value. Dutiable import share is dutiable imports divided by imports for consumption. Weighted average duty is calculated duties collected divided by dutiable imports. Special provisions include imports under chapters 98 and 99 of the Harmonized Tariff Schedule of the United States.

TABLE 5 Brunei: U.S. total exports and general imports, by sector, 2010–12

Sector	2010	2011	2012	Change, 2012 from 2010	
				Absolute	Percent
	<i>Million dollars</i>				
U.S. total exports:					
Agricultural products	4	5	5	1	33.9
Forest products	( <sup>a</sup> )	( <sup>a</sup> )	( <sup>a</sup> )	( <sup>a</sup> )	25.9
Chemicals and related products	5	6	7	2	33.8
Energy-related products	( <sup>a</sup> )	1	1	1	193.5
Textiles and apparel	1	1	1	1	103.8
Footwear	( <sup>a</sup> )	1	( <sup>a</sup> )	( <sup>a</sup> )	-4.3
Minerals and metals	6	13	13	7	116.8
Machinery	20	26	30	10	51.4
Transportation equipment	45	83	59	14	31.8
Electronic products	29	31	24	-6	-19.5
Miscellaneous manufactures	2	3	2	( <sup>a</sup> )	-0.4
Special provisions	11	16	14	3	24.2
<b>Total</b>	<b>124</b>	<b>184</b>	<b>157</b>	<b>33</b>	<b>26.5</b>
U.S. general imports:					
Agricultural products	( <sup>a</sup> )	0	0	( <sup>a</sup> )	-100.0
Forest products	0	0	( <sup>a</sup> )	( <sup>a</sup> )	( <sup>b</sup> )
Chemicals and related products	3	8	3	( <sup>a</sup> )	2.5
Energy-related products	0	0	75	75	( <sup>b</sup> )
Textiles and apparel	5	4	4	-1	-19.4
Footwear	0	0	0	0	0
Minerals and metals	( <sup>a</sup> )	9	( <sup>a</sup> )	( <sup>a</sup> )	324.8
Machinery	0	( <sup>a</sup> )	( <sup>a</sup> )	( <sup>a</sup> )	( <sup>b</sup> )
Transportation equipment	( <sup>a</sup> )	( <sup>a</sup> )	1	1	855.6
Electronic products	1	( <sup>a</sup> )	( <sup>a</sup> )	-1	-96.4
Miscellaneous manufactures	0	( <sup>a</sup> )	( <sup>a</sup> )	( <sup>a</sup> )	( <sup>b</sup> )
Special provisions	3	2	3	( <sup>a</sup> )	-0.5
<b>Total</b>	<b>12</b>	<b>23</b>	<b>86</b>	<b>74</b>	<b>626.4</b>

Source: Compiled from official statistics of the U.S. Department of Commerce.

Note: Calculations based on unrounded data. Import data do not include U.S. Virgin Island imports. Import figures are based on customs value. Export figures are based on f.a.s. value, U.S. port of export. Special provisions includes exports under chapter 98 of Schedule B and imports under chapters 98 and 99 of the Harmonized Tariff Schedule of the United States (HTS). The sectors listed include all products classified in chapters 1-97 of Schedule B and the HTS.

<sup>a</sup>Less than \$500,000.

<sup>b</sup>Not meaningful for purposes of comparison.

TABLE 5 Brunei: Selected U.S. imports, by major industry/commodity sectors, 2012

Sector	U.S. imports for	Dutiable	Calculated	Dutiable	Weighted
	consumption	imports	duties	import	average
	Thousand dollars			Percent	
			collected	share	duty
Agricultural products	0	0	0	0	0
Forest products	30	0	0	0	0
Chemicals and related products	2,740	2,740	150	100.0	5.5
Energy-related products	5,119	5,119	2	100.0	<sup>(a)</sup>
Textiles and apparel	4,150	4,150	759	100.0	18.3
Footwear	0	0	0	0	0
Minerals and metals	292	4	<sup>(b)</sup>	1.5	5.0
Machinery	201	180	4	89.2	2.5
Transportation equipment	885	5	<sup>(b)</sup>	0.5	3.0
Electronic products	19	2	<sup>(b)</sup>	11.4	1.3
Miscellaneous manufactures	116	0	0	0	0
Special provisions	3,283	79	0	2.4	0
<b>Total</b>	<b>16,836</b>	<b>12,280</b>	<b>916</b>	<b>72.9</b>	<b>7.5</b>

Source: Compiled from official statistics of the U.S. Department of Commerce.

Note: Calculations based on unrounded data. Import data do not include U.S. Virgin Island imports. Import figures are based on customs value. Dutiable import share is dutiable imports divided by imports for consumption. Weighted average duty is calculated duties collected divided by dutiable imports. Special provisions include imports under chapters 98 and 99 of the Harmonized Tariff Schedule of the United States.

<sup>a</sup>Less than 0.05 percent.

<sup>b</sup>Less than \$500,000.

TABLE 6 Canada: U.S. total exports and general imports, by sector, 2010–12

Sector	2010	2011	2012	Change, 2012 from 2010	
				Absolute	Percent
<i>Million dollars</i>					
U.S. total exports:					
Agricultural products	20,795	23,745	25,368	4,573	22.0
Forest products	10,770	10,905	10,875	104	1.0
Chemicals and related products	35,225	39,313	39,876	4,651	13.2
Energy-related products	13,259	18,840	19,146	5,887	44.4
Textiles and apparel	4,466	4,938	5,188	722	16.2
Footwear	322	354	416	94	29.2
Minerals and metals	28,007	32,018	32,074	4,067	14.5
Machinery	25,073	28,347	30,526	5,452	21.7
Transportation equipment	63,815	70,890	75,801	11,986	18.8
Electronic products	32,214	35,476	35,455	3,241	10.1
Miscellaneous manufactures	7,817	8,332	9,299	1,482	19.0
Special provisions	6,430	7,606	7,733	1,304	20.3
<b>Total</b>	<b>248,194</b>	<b>280,764</b>	<b>291,758</b>	<b>43,564</b>	<b>17.6</b>
U.S. general imports:					
Agricultural products	19,011	21,900	23,215	4,204	22.1
Forest products	16,545	16,521	16,465	-80	-0.5
Chemicals and related products	29,967	34,087	33,558	3,591	12.0
Energy-related products	83,207	104,020	104,040	20,832	25.0
Textiles and apparel	2,225	2,321	2,414	189	8.5
Footwear	66	55	49	-18	-26.9
Minerals and metals	31,653	35,337	32,431	778	2.5
Machinery	10,884	12,523	13,354	2,470	22.7
Transportation equipment	59,040	64,526	73,240	14,200	24.1
Electronic products	9,465	9,784	9,521	56	0.6
Miscellaneous manufactures	4,520	4,629	4,473	-47	-1.0
Special provisions	9,863	10,668	11,472	1,609	16.3
<b>Total</b>	<b>276,447</b>	<b>316,371</b>	<b>324,230</b>	<b>47,784</b>	<b>17.3</b>

Source: Compiled from official statistics of the U.S. Department of Commerce.

Note: Calculations based on unrounded data. Import data do not include U.S. Virgin Island imports. Import figures are based on customs value. Export figures are based on f.a.s. value, U.S. port of export. Special provisions includes exports under chapter 98 of Schedule B and imports under chapters 98 and 99 of the Harmonized Tariff Schedule of the United States (HTS). The sectors listed include all products classified in chapters 1-97 of Schedule B and the HTS.

TABLE 6 Canada: Selected U.S. imports, by major industry/commodity sectors, 2012

Sector	U.S. imports for consumption	Dutiable imports	Calculated duties collected	Dutiable import share	Weighted average duty
	<i>Thousand dollars</i>			<i>Percent</i>	
Agricultural products	23,202,221	196,676	13,051	0.8	6.6
Forest products	16,464,293	7,003	464	( <sup>a</sup> )	6.6
Chemicals and related products	34,160,114	353,500	17,177	1.0	4.9
Energy-related products	103,027,753	23,882,728	19,470	23.2	0.1
Textiles and apparel	2,413,328	88,608	6,675	3.7	7.5
Footwear	48,544	2,422	382	5.0	15.8
Minerals and metals	32,528,944	228,789	8,295	0.7	3.6
Machinery	13,350,038	572,259	15,981	4.3	2.8
Transportation equipment	73,230,480	1,214,029	32,360	1.7	2.7
Electronic products	9,513,186	567,428	14,025	6.0	2.5
Miscellaneous manufactures	4,471,814	33,553	2,075	0.8	6.2
Special provisions	11,498,176	2,361,201	4,346	20.5	0.2
Total	323,908,890	29,508,197	134,302	9.1	0.5

Source: Compiled from official statistics of the U.S. Department of Commerce.

Note: Calculations based on unrounded data. Import data do not include U.S. Virgin Island imports. Import figures are based on customs value. Dutiable import share is dutiable imports divided by imports for consumption. Weighted average duty is calculated duties collected divided by dutiable imports. Special provisions include imports under chapters 98 and 99 of the Harmonized Tariff Schedule of the United States.

<sup>a</sup>Less than 0.05 percent.

TABLE 7 Chile: U.S. total exports and general imports, by sector, 2010–12

Sector	2010	2011	2012	Change, 2012 from 2010	
				Absolute	Percent
<i>Million dollars</i>					
U.S. total exports:					
Agricultural products	429	581	709	279	65.1
Forest products	229	230	240	12	5.1
Chemicals and related products	1,528	1,852	2,122	594	38.9
Energy-related products	2,340	4,978	6,091	3,751	160.3
Textiles and apparel	164	195	192	28	17.1
Footwear	11	12	13	2	19.4
Minerals and metals	337	499	373	35	10.5
Machinery	949	1,249	1,407	458	48.2
Transportation equipment	2,521	3,340	4,499	1,979	78.5
Electronic products	1,701	2,052	2,243	541	31.8
Miscellaneous manufactures	210	276	315	105	50.1
Special provisions	452	610	681	229	50.7
<b>Total</b>	<b>10,871</b>	<b>15,873</b>	<b>18,886</b>	<b>8,014</b>	<b>73.7</b>
U.S. general imports:					
Agricultural products	2,917	3,299	3,518	601	20.6
Forest products	558	624	618	60	10.7
Chemicals and related products	470	784	957	487	103.8
Energy-related products	75	59	69	-6	-8.4
Textiles and apparel	18	15	14	-4	-21.5
Footwear	<sup>(a)</sup>	<sup>(a)</sup>	<sup>(a)</sup>	<sup>(a)</sup>	-42.7
Minerals and metals	2,791	4,067	3,886	1,096	39.3
Machinery	20	19	22	1	7.2
Transportation equipment	15	29	44	29	194.2
Electronic products	13	9	12	-1	-8.9
Miscellaneous manufactures	21	42	18	-3	-13.8
Special provisions	102	122	223	120	117.4
<b>Total</b>	<b>7,000</b>	<b>9,068</b>	<b>9,380</b>	<b>2,380</b>	<b>34.0</b>

Source: Compiled from official statistics of the U.S. Department of Commerce.

Note: Calculations based on unrounded data. Import data do not include U.S. Virgin Island imports. Import figures are based on customs value. Export figures are based on f.a.s. value, U.S. port of export. Special provisions includes exports under chapter 98 of Schedule B and imports under chapters 98 and 99 of the Harmonized Tariff Schedule of the United States (HTS). The sectors listed include all products classified in chapters 1-97 of Schedule B and the HTS.

<sup>a</sup>Less than \$500,000.

TABLE 7 Chile: Selected U.S. imports, by major industry/commodity sectors, 2012

Sector	U.S. imports for consumption	Dutiable imports	Calculated duties collected	Dutiable import share	Weighted average duty
	<i>Thousand dollars</i>			<i>Percent</i>	
Agricultural products	3,508,847	425,833	10,910	12.1	2.6
Forest products	618,190	507	23	0.1	4.5
Chemicals and related products	956,801	12,186	427	1.3	3.5
Energy-related products	68,535	9,422	10	13.7	0.1
Textiles and apparel	14,014	1,576	274	11.2	17.4
Footwear	73	22	2	30.1	11.4
Minerals and metals	3,900,186	1,267	43	( <sup>a</sup> )	3.4
Machinery	21,759	2,107	65	9.7	3.1
Transportation equipment	43,831	11,960	301	27.3	2.5
Electronic products	11,575	1,108	23	9.6	2.1
Miscellaneous manufactures	18,095	229	13	1.3	5.9
Special provisions	223,197	7,554	4	3.4	( <sup>a</sup> )
Total	9,385,102	473,771	12,095	5.0	2.6

Source: Compiled from official statistics of the U.S. Department of Commerce.

Note: Calculations based on unrounded data. Import data do not include U.S. Virgin Island imports. Import figures are based on customs value. Dutiable import share is dutiable imports divided by imports for consumption. Weighted average duty is calculated duties collected divided by dutiable imports. Special provisions include imports under chapters 98 and 99 of the Harmonized Tariff Schedule of the United States.

<sup>a</sup>Less than 0.05 percent.

TABLE 8 Japan: U.S. total exports and general imports, by sector, 2010–12

Sector	2010	2011	2012	Change, 2012 from 2010	
				Absolute	Percent
<i>Million dollars</i>					
U.S. total exports:					
Agricultural products	13,044	15,374	14,702	1,658	12.7
Forest products	2,015	2,237	2,187	172	8.5
Chemicals and related products	11,493	12,125	12,702	1,210	10.5
Energy-related products	2,784	3,495	3,551	767	27.6
Textiles and apparel	591	632	697	106	18.0
Footwear	79	92	92	13	16.8
Minerals and metals	3,416	4,018	3,454	38	1.1
Machinery	3,467	3,925	3,543	76	2.2
Transportation equipment	7,850	8,174	11,925	4,075	51.9
Electronic products	12,121	13,122	14,279	2,158	17.8
Miscellaneous manufactures	1,844	1,836	1,891	47	2.5
Special provisions	1,841	1,139	1,022	-819	-44.5
<b>Total</b>	<b>60,545</b>	<b>66,168</b>	<b>70,046</b>	<b>9,501</b>	<b>15.7</b>
U.S. general imports:					
Agricultural products	717	761	787	69	9.6
Forest products	551	511	523	-27	-5.0
Chemicals and related products	12,392	12,679	12,911	519	4.2
Energy-related products	685	711	701	16	2.3
Textiles and apparel	660	711	758	98	14.8
Footwear	2	2	2	<sup>(a)</sup>	23.5
Minerals and metals	5,809	7,082	8,140	2,331	40.1
Machinery	15,258	19,265	20,789	5,531	36.2
Transportation equipment	52,671	55,747	70,164	17,493	33.2
Electronic products	26,556	26,611	26,296	-260	-1.0
Miscellaneous manufactures	1,722	1,720	1,595	-127	-7.4
Special provisions	3,324	3,010	3,722	398	12.0
<b>Total</b>	<b>120,347</b>	<b>128,811</b>	<b>146,387</b>	<b>26,040</b>	<b>21.6</b>

Source: Compiled from official statistics of the U.S. Department of Commerce.

Note: Calculations based on unrounded data. Import data do not include U.S. Virgin Island imports. Import figures are based on customs value. Export figures are based on f.a.s. value, U.S. port of export. Special provisions includes exports under chapter 98 of Schedule B and imports under chapters 98 and 99 of the Harmonized Tariff Schedule of the United States (HTS). The sectors listed include all products classified in chapters 1-97 of Schedule B and the HTS.

<sup>a</sup>Less than \$500,000.

TABLE 8 Japan: Selected U.S. imports, by major industry/commodity sectors, 2012

Sector	U.S. imports for consumption	Dutiable imports	Calculated duties collected	Dutiable import share	Weighted average duty
	<i>Thousand dollars</i>			<i>Percent</i>	
Agricultural products	779,719	382,994	14,653	49.1	3.8
Forest products	530,857	8,082	373	1.5	4.6
Chemicals and related products	12,432,943	6,406,874	286,099	51.5	4.5
Energy-related products	615,538	494,774	6,374	80.4	1.3
Textiles and apparel	738,641	548,548	43,141	74.3	7.9
Footwear	2,392	2,274	272	95.0	12.0
Minerals and metals	8,024,385	2,839,219	142,798	35.4	5.0
Machinery	20,461,170	9,815,094	299,255	48.0	3.0
Transportation equipment	69,276,045	54,942,863	1,434,887	79.3	2.6
Electronic products	26,212,556	7,486,602	239,911	28.6	3.2
Miscellaneous manufactures	1,603,649	605,589	33,126	37.8	5.5
Special provisions	3,859,350	1,158,206	448	30.0	<sup>a)</sup>
Total	144,537,246	84,691,120	2,501,338	58.6	3.0

Source: Compiled from official statistics of the U.S. Department of Commerce.

Note: Calculations based on unrounded data. Import data do not include U.S. Virgin Island imports. Import figures are based on customs value. Dutiable import share is dutiable imports divided by imports for consumption. Weighted average duty is calculated duties collected divided by dutiable imports. Special provisions include imports under chapters 98 and 99 of the Harmonized Tariff Schedule of the United States.

<sup>a)</sup>Less than 0.05 percent.

TABLE 9 Malaysia: U.S. total exports and general imports, by sector, 2010–12

Sector	2010	2011	2012	Change, 2012 from 2010	
				Absolute	Percent
	<i>Million dollars</i>				
U.S. total exports:					
Agricultural products	711	1,004	884	173	24.4
Forest products	171	181	171	1	0.4
Chemicals and related products	923	1,117	1,073	150	16.2
Energy-related products	202	241	108	-94	-46.5
Textiles and apparel	50	53	60	10	19.2
Footwear	<sup>(a)</sup>	1	2	1	295.5
Minerals and metals	951	1,127	862	-89	-9.4
Machinery	1,231	1,356	1,366	134	10.9
Transportation equipment	1,233	1,350	1,587	354	28.7
Electronic products	8,006	7,453	6,407	-1,599	-20.0
Miscellaneous manufactures	70	63	121	51	73.3
Special provisions	434	272	214	-220	-50.7
<b>Total</b>	<b>13,982</b>	<b>14,218</b>	<b>12,854</b>	<b>-1,128</b>	<b>-8.1</b>
U.S. general imports:					
Agricultural products	1,658	2,308	1,807	149	9.0
Forest products	229	209	245	16	7.1
Chemicals and related products	773	1,058	1,010	236	30.5
Energy-related products	260	161	116	-144	-55.3
Textiles and apparel	1,545	1,726	1,718	172	11.2
Footwear	4	2	2	-2	-43.4
Minerals and metals	406	535	530	124	30.5
Machinery	1,022	1,083	1,245	223	21.8
Transportation equipment	237	270	351	114	48.0
Electronic products	18,010	16,676	17,210	-800	-4.4
Miscellaneous manufactures	919	855	918	-1	-0.1
Special provisions	842	888	782	-59	-7.0
<b>Total</b>	<b>25,904</b>	<b>25,772</b>	<b>25,933</b>	<b>29</b>	<b>0.1</b>

Source: Compiled from official statistics of the U.S. Department of Commerce.

Note: Calculations based on unrounded data. Import data do not include U.S. Virgin Island imports. Import figures are based on customs value. Export figures are based on f.a.s. value, U.S. port of export. Special provisions includes exports under chapter 98 of Schedule B and imports under chapters 98 and 99 of the Harmonized Tariff Schedule of the United States (HTS). The sectors listed include all products classified in chapters 1-97 of Schedule B and the HTS.

<sup>a</sup>Less than \$500,000.

TABLE 9 Malaysia: Selected U.S. imports, by major industry/commodity sectors, 2012

Sector	U.S. imports for consumption	Dutiable imports	Calculated duties collected	Dutiable import share	Weighted average duty
	<i>Thousand dollars</i>			<i>Percent</i>	
Agricultural products	1,805,955	179,681	5,188	9.9	2.9
Forest products	245,336	102,937	6,572	42.0	6.4
Chemicals and related products	1,012,161	682,711	21,605	67.5	3.2
Energy-related products	115,986	90,100	77	77.7	0.1
Textiles and apparel	1,713,116	717,357	100,438	41.9	14.0
Footwear	1,701	1,668	538	98.1	32.2
Minerals and metals	529,821	223,786	7,914	42.2	3.5
Machinery	1,232,258	394,118	9,329	32.0	2.4
Transportation equipment	355,242	153,590	4,672	43.2	3.0
Electronic products	17,099,490	1,210,158	31,144	7.1	2.6
Miscellaneous manufactures	917,129	84,241	4,698	9.2	5.6
Special provisions	779,532	262,189	156	33.6	0.1
Total	25,807,727	4,102,536	192,330	15.9	4.7

*Source:* Compiled from official statistics of the U.S. Department of Commerce.

*Note:* Calculations based on unrounded data. Import data do not include U.S. Virgin Island imports. Import figures are based on customs value. Dutiable import share is dutiable imports divided by imports for consumption. Weighted average duty is calculated duties collected divided by dutiable imports. Special provisions include imports under chapters 98 and 99 of the Harmonized Tariff Schedule of the United States.

TABLE 10 Mexico: U.S. total exports and general imports, by sector, 2010–12

Sector	2010	2011	2012	Change, 2012 from 2010	
				Absolute	Percent
<i>Million dollars</i>					
U.S. total exports:					
Agricultural products	14,929	18,894	19,514	4,585	30.7
Forest products	5,195	5,347	5,531	335	6.5
Chemicals and related products	25,097	29,018	32,381	7,284	29.0
Energy-related products	14,497	23,701	24,223	9,726	67.1
Textiles and apparel	4,209	4,763	4,971	762	18.1
Footwear	109	106	97	-11	-10.5
Minerals and metals	13,694	17,390	19,614	5,920	43.2
Machinery	14,438	16,759	19,716	5,279	36.6
Transportation equipment	24,911	30,214	35,809	10,898	43.7
Electronic products	38,615	42,645	45,104	6,489	16.8
Miscellaneous manufactures	2,408	2,577	2,758	350	14.5
Special provisions	5,219	6,130	6,613	1,394	26.7
<b>Total</b>	<b>163,321</b>	<b>197,544</b>	<b>216,331</b>	<b>53,010</b>	<b>32.5</b>
U.S. general imports:					
Agricultural products	14,746	17,148	17,754	3,009	20.4
Forest products	1,369	1,491	1,525	156	11.4
Chemicals and related products	7,040	8,385	9,132	2,092	29.7
Energy-related products	33,402	44,095	39,916	6,515	19.5
Textiles and apparel	5,540	5,880	5,784	245	4.4
Footwear	319	371	492	174	54.5
Minerals and metals	16,239	21,959	21,999	5,760	35.5
Machinery	20,560	23,179	25,324	4,764	23.2
Transportation equipment	57,615	67,510	77,866	20,250	35.1
Electronic products	62,330	62,354	65,622	3,291	5.3
Miscellaneous manufactures	3,554	3,953	5,006	1,452	40.9
Special provisions	6,940	6,742	7,230	290	4.2
<b>Total</b>	<b>229,652</b>	<b>263,068</b>	<b>277,650</b>	<b>47,998</b>	<b>20.9</b>

Source: Compiled from official statistics of the U.S. Department of Commerce.

Note: Calculations based on unrounded data. Import data do not include U.S. Virgin Island imports. Import figures are based on customs value. Export figures are based on f.a.s. value, U.S. port of export. Special provisions includes exports under chapter 98 of Schedule B and imports under chapters 98 and 99 of the Harmonized Tariff Schedule of the United States (HTS). The sectors listed include all products classified in chapters 1-97 of Schedule B and the HTS.

TABLE 10 Mexico: Selected U.S. imports, by major industry/commodity sectors, 2012

Sector	U.S. imports for consumption	Dutiable imports	Calculated duties collected	Dutiable import share	Weighted average duty
	<i>Thousand dollars</i>			<i>Percent</i>	
Agricultural products	17,730,542	13,624	692	0.1	5.1
Forest products	1,524,914	4,972	256	0.3	5.2
Chemicals and related products	9,100,425	409,736	17,891	4.5	4.4
Energy-related products	39,374,713	245,856	214	0.6	0.1
Textiles and apparel	5,782,370	257,686	39,104	4.5	15.2
Footwear	492,334	10,028	1,577	2.0	15.7
Minerals and metals	21,996,319	277,935	11,307	1.3	4.1
Machinery	25,280,262	1,825,329	49,589	7.2	2.7
Transportation equipment	77,546,958	3,420,589	91,535	4.4	2.7
Electronic products	65,343,512	2,103,078	56,887	3.2	2.7
Miscellaneous manufactures	4,975,990	174,468	10,020	3.5	5.7
Special provisions	7,257,620	1,669,415	6,761	23.0	0.4
Total	276,405,959	10,412,717	285,834	3.8	2.7

Source: Compiled from official statistics of the U.S. Department of Commerce.

Note: Calculations based on unrounded data. Import data do not include U.S. Virgin Island imports. Import figures are based on customs value. Dutiable import share is dutiable imports divided by imports for consumption. Weighted average duty is calculated duties collected divided by dutiable imports. Special provisions include imports under chapters 98 and 99 of the Harmonized Tariff Schedule of the United States.

TABLE 11 New Zealand: U.S. total exports and general imports, by sector, 2010–12

Sector	2010	2011	2012	Change, 2012 from 2010	
				Absolute	Percent
	<i>Million dollars</i>				
U.S. total exports:					
Agricultural products	280	342	410	130	46.2
Forest products	69	70	77	8	11.6
Chemicals and related products	429	412	436	8	1.8
Energy-related products	57	82	86	28	49.7
Textiles and apparel	41	46	55	14	34.6
Footwear	5	4	3	-1	-24.6
Minerals and metals	87	187	204	117	134.1
Machinery	240	282	316	77	32.0
Transportation equipment	954	1,406	924	-30	-3.1
Electronic products	339	394	376	37	10.9
Miscellaneous manufactures	72	87	79	7	9.9
Special provisions	248	260	256	8	3.2
<b>Total</b>	<b>2,821</b>	<b>3,571</b>	<b>3,223</b>	<b>402</b>	<b>14.3</b>
U.S. general imports:					
Agricultural products	1,819	2,121	2,393	574	31.6
Forest products	162	149	142	-20	-12.3
Chemicals and related products	56	62	75	19	35.0
Energy-related products	<sup>(a)</sup>	<sup>(a)</sup>	<sup>(a)</sup>	<sup>(a)</sup>	146.2
Textiles and apparel	24	32	33	9	36.4
Footwear	3	3	1	-2	-73.6
Minerals and metals	121	188	152	31	25.4
Machinery	150	180	200	49	32.6
Transportation equipment	56	52	55	-1	-1.2
Electronic products	198	196	205	7	3.5
Miscellaneous manufactures	20	22	22	1	6.0
Special provisions	158	154	161	3	2.1
<b>Total</b>	<b>2,768</b>	<b>3,160</b>	<b>3,439</b>	<b>671</b>	<b>24.2</b>

Source: Compiled from official statistics of the U.S. Department of Commerce.

Note: Calculations based on unrounded data. Import data do not include U.S. Virgin Island imports. Import figures are based on customs value. Export figures are based on f.a.s. value, U.S. port of export. Special provisions includes exports under chapter 98 of Schedule B and imports under chapters 98 and 99 of the Harmonized Tariff Schedule of the United States (HTS). The sectors listed include all products classified in chapters 1-97 of Schedule B and the HTS.

<sup>a</sup>Less than \$500,000.

TABLE 11 New Zealand: Selected U.S. imports, by major industry/commodity sectors, 2012

Sector	U.S. imports for consumption	Dutiable imports	Calculated duties collected	Dutiable import share	Weighted average duty
	<i>Thousand dollars</i>			<i>Percent</i>	
Agricultural products	2,365,117	1,808,642	26,054	76.5	1.4
Forest products	142,026	1,334	56	0.9	4.2
Chemicals and related products	75,282	25,932	964	34.4	3.7
Energy-related products	350	47	( <sup>a</sup> )	13.4	0.9
Textiles and apparel	32,947	25,245	1,759	76.6	7.0
Footwear	864	610	104	70.5	17.1
Minerals and metals	151,975	15,803	502	10.4	3.2
Machinery	199,372	68,893	1,602	34.6	2.3
Transportation equipment	55,225	19,241	405	34.8	2.1
Electronic products	205,389	23,737	575	11.6	2.4
Miscellaneous manufactures	21,229	6,833	359	32.2	5.2
Special provisions	161,295	21,943	34	13.6	0.2
Total	3,411,073	2,018,260	32,414	59.2	1.6

Source: Compiled from official statistics of the U.S. Department of Commerce.

Note: Calculations based on unrounded data. Import data do not include U.S. Virgin Island imports. Import figures are based on customs value. Dutiable import share is dutiable imports divided by imports for consumption. Weighted average duty is calculated duties collected divided by dutiable imports. Special provisions include imports under chapters 98 and 99 of the Harmonized Tariff Schedule of the United States.

<sup>a</sup>Less than \$500,000.

TABLE 12 Peru: U.S. total exports and general imports, by sector, 2010–12

Sector	2010	2011	2012	Change, 2012 from 2010	
				Absolute	Percent
	<i>Million dollars</i>				
U.S. total exports:					
Agricultural products	762	884	639	-123	-16.1
Forest products	148	157	181	33	22.4
Chemicals and related products	1,199	1,278	1,331	132	11.0
Energy-related products	1,023	1,686	2,313	1,290	126.1
Textiles and apparel	59	70	86	27	46.7
Footwear	2	3	3	1	43.7
Minerals and metals	354	380	479	125	35.4
Machinery	642	856	889	247	38.4
Transportation equipment	1,131	1,357	1,637	506	44.7
Electronic products	1,153	1,311	1,396	243	21.0
Miscellaneous manufactures	94	116	162	68	71.9
Special provisions	181	220	240	59	32.5
<b>Total</b>	<b>6,749</b>	<b>8,319</b>	<b>9,357</b>	<b>2,608</b>	<b>38.6</b>
U.S. general imports:					
Agricultural products	1,111	1,524	1,476	365	32.8
Forest products	25	27	33	8	33.0
Chemicals and related products	91	216	228	136	149.4
Energy-related products	1,142	1,502	1,431	289	25.3
Textiles and apparel	692	745	644	-48	-7.0
Footwear	2	2	3	1	51.7
Minerals and metals	1,825	1,960	2,459	634	34.7
Machinery	11	13	13	2	17.7
Transportation equipment	9	19	14	5	54.1
Electronic products	3	5	4	1	46.5
Miscellaneous manufactures	59	58	56	-3	-4.8
Special provisions	68	71	67	( <sup>a</sup> )	-0.3
<b>Total</b>	<b>5,037</b>	<b>6,142</b>	<b>6,426</b>	<b>1,389</b>	<b>27.6</b>

Source: Compiled from official statistics of the U.S. Department of Commerce.

Note: Calculations based on unrounded data. Import data do not include U.S. Virgin Island imports. Import figures are based on customs value. Export figures are based on f.a.s. value, U.S. port of export. Special provisions includes exports under chapter 98 of Schedule B and imports under chapters 98 and 99 of the Harmonized Tariff Schedule of the United States (HTS). The sectors listed include all products classified in chapters 1-97 of Schedule B and the HTS.

<sup>a</sup>Less than \$500,000.

TABLE 12 Peru: Selected U.S. imports, by major industry/commodity sectors, 2012

Sector	U.S. imports for consumption	Dutiable imports	Calculated duties collected	Dutiable import share	Weighted average duty
	<i>Thousand dollars</i>			<i>Percent</i>	
Agricultural products	1,475,370	42,376	2,057	2.9	4.9
Forest products	32,639	229	8	0.7	3.4
Chemicals and related products	518,123	1,812	67	0.3	3.7
Energy-related products	1,298,455	569,146	468	43.8	0.1
Textiles and apparel	643,885	13,222	1,764	2.1	13.3
Footwear	2,916	30	4	1.0	12.2
Minerals and metals	2,461,191	28,022	304	1.1	1.1
Machinery	12,511	582	15	4.7	2.5
Transportation equipment	13,534	1,050	29	7.8	2.7
Electronic products	4,150	475	10	11.4	2.2
Miscellaneous manufactures	55,908	758	43	1.4	5.7
Special provisions	67,360	8,647	0	12.8	0
Total	6,586,041	666,348	4,768	10.1	0.7

*Source:* Compiled from official statistics of the U.S. Department of Commerce.

*Note:* Calculations based on unrounded data. Import data do not include U.S. Virgin Island imports. Import figures are based on customs value. Dutiable import share is dutiable imports divided by imports for consumption. Weighted average duty is calculated duties collected divided by dutiable imports. Special provisions include imports under chapters 98 and 99 of the Harmonized Tariff Schedule of the United States.

TABLE 13 Singapore: U.S. total exports and general imports, by sector, 2010–12

Sector	2010	2011	2012	Change, 2012 from 2010	
				Absolute	Percent
	<i>Million dollars</i>				
U.S. total exports:					
Agricultural products	516	660	733	217	42.1
Forest products	179	191	177	-3	-1.5
Chemicals and related products	3,868	4,517	4,187	319	8.2
Energy-related products	3,903	4,960	4,852	948	24.3
Textiles and apparel	111	137	142	31	28.2
Footwear	7	11	11	4	61.1
Minerals and metals	1,074	1,313	1,307	233	21.7
Machinery	3,668	3,747	3,821	153	4.2
Transportation equipment	5,871	6,476	6,709	838	14.3
Electronic products	7,858	7,637	7,107	-751	-9.6
Miscellaneous manufactures	621	595	458	-162	-26.1
Special provisions	1,473	1,147	1,056	-417	-28.3
<b>Total</b>	<b>29,150</b>	<b>31,393</b>	<b>30,561</b>	<b>1,411</b>	<b>4.8</b>
U.S. general imports:					
Agricultural products	135	136	120	-15	-11.0
Forest products	130	121	86	-45	-34.3
Chemicals and related products	4,891	6,219	6,389	1,498	30.6
Energy-related products	135	148	88	-47	-35.0
Textiles and apparel	53	37	30	-23	-42.8
Footwear	<sup>(a)</sup>	<sup>(a)</sup>	1	<sup>(a)</sup>	139.0
Minerals and metals	150	296	247	97	64.6
Machinery	869	1,407	1,419	550	63.3
Transportation equipment	984	379	925	-59	-6.0
Electronic products	8,183	8,155	7,993	-190	-2.3
Miscellaneous manufactures	86	92	94	7	8.4
Special provisions	1,862	2,119	2,833	971	52.2
<b>Total</b>	<b>17,478</b>	<b>19,111</b>	<b>20,224</b>	<b>2,746</b>	<b>15.7</b>

Source: Compiled from official statistics of the U.S. Department of Commerce.

Note: Calculations based on unrounded data. Import data do not include U.S. Virgin Island imports. Import figures are based on customs value. Export figures are based on f.a.s. value, U.S. port of export. Special provisions includes exports under chapter 98 of Schedule B and imports under chapters 98 and 99 of the Harmonized Tariff Schedule of the United States (HTS). The sectors listed include all products classified in chapters 1-97 of Schedule B and the HTS.

<sup>a</sup>Less than \$500,000.

TABLE 13 Singapore: Selected U.S. imports, by major industry/commodity sectors, 2012

Sector	U.S. imports for consumption	Dutiable imports	Calculated duties collected	Dutiable import share	Weighted average duty
	<i>Thousand dollars</i>			<i>Percent</i>	
Agricultural products	118,805	17,015	304	14.3	1.8
Forest products	85,705	485	20	0.6	4.0
Chemicals and related products	6,383,108	57,347	2,346	0.9	4.1
Energy-related products	87,693	61,002	1,058	69.6	1.7
Textiles and apparel	30,460	27,321	6,967	89.7	25.5
Footwear	551	309	36	56.1	11.6
Minerals and metals	246,464	29,367	1,203	11.9	4.1
Machinery	1,402,889	139,218	4,075	9.9	2.9
Transportation equipment	919,238	45,931	1,321	5.0	2.9
Electronic products	7,879,473	235,545	7,383	3.0	3.1
Miscellaneous manufactures	93,745	4,412	287	4.7	6.5
Special provisions	2,831,410	485,247	35,015	17.1	7.2
<b>Total</b>	<b>20,079,540</b>	<b>1,103,200</b>	<b>60,014</b>	<b>5.5</b>	<b>5.4</b>

Source: Compiled from official statistics of the U.S. Department of Commerce.

Note: Calculations based on unrounded data. Import data do not include U.S. Virgin Island imports. Import figures are based on customs value. Dutiable import share is dutiable imports divided by imports for consumption. Weighted average duty is calculated duties collected divided by dutiable imports. Special provisions include imports under chapters 98 and 99 of the Harmonized Tariff Schedule of the United States.

TABLE 14 Vietnam: U.S. total exports and general imports, by sector, 2010–12

Sector	2010	2011	2012	Change, 2012 from 2010	
				Absolute	Percent
<i>Million dollars</i>					
U.S. total exports:					
Agricultural products	1,400	1,775	1,774	373	26.7
Forest products	228	239	266	38	16.8
Chemicals and related products	396	499	490	94	23.8
Energy-related products	14	12	11	-2	-15.6
Textiles and apparel	42	44	69	27	62.4
Footwear	47	54	39	-8	-16.8
Minerals and metals	351	293	311	-40	-11.5
Machinery	245	322	286	40	16.5
Transportation equipment	499	507	319	-180	-36.0
Electronic products	407	535	998	591	145.2
Miscellaneous manufactures	19	26	26	7	36.1
Special provisions	62	35	35	-27	-44.2
<b>Total</b>	<b>3,710</b>	<b>4,341</b>	<b>4,623</b>	<b>913</b>	<b>24.6</b>
U.S. general imports:					
Agricultural products	1,785	2,267	2,425	640	35.8
Forest products	163	162	191	29	17.5
Chemicals and related products	437	532	523	86	19.7
Energy-related products	407	433	354	-53	-13.1
Textiles and apparel	6,216	7,087	7,519	1,303	21.0
Footwear	1,623	2,046	2,409	786	48.5
Minerals and metals	397	635	850	453	114.3
Machinery	234	335	527	293	124.9
Transportation equipment	260	350	614	354	136.5
Electronic products	1,023	1,152	1,676	653	63.8
Miscellaneous manufactures	2,266	2,414	3,102	836	36.9
Special provisions	57	72	76	19	33.3
<b>Total</b>	<b>14,867</b>	<b>17,485</b>	<b>20,266</b>	<b>5,398</b>	<b>36.3</b>

Source: Compiled from official statistics of the U.S. Department of Commerce.

Note: Calculations based on unrounded data. Import data do not include U.S. Virgin Island imports. Import figures are based on customs value. Export figures are based on f.a.s. value, U.S. port of export. Special provisions includes exports under chapter 98 of Schedule B and imports under chapters 98 and 99 of the Harmonized Tariff Schedule of the United States (HTS). The sectors listed include all products classified in chapters 1-97 of Schedule B and the HTS.

TABLE 14 Vietnam: Selected U.S. imports, by major industry/commodity sectors, 2012

Sector	U.S. imports for consumption	Dutiable imports	Calculated duties collected	Dutiable import share	Weighted average duty
	<i>Thousand dollars</i>			<i>Percent</i>	
Agricultural products	2,417,938	241,128	16,839	10.0	7.0
Forest products	191,391	63,805	2,885	33.3	4.5
Chemicals and related products	522,714	288,732	11,840	55.2	4.1
Energy-related products	304,920	294,335	216	96.5	0.1
Textiles and apparel	7,498,946	7,443,592	1,311,769	99.3	17.6
Footwear	2,387,720	2,347,883	293,649	98.3	12.5
Minerals and metals	850,133	283,550	12,463	33.4	4.4
Machinery	496,147	308,041	8,348	62.1	2.7
Transportation equipment	609,796	522,002	20,869	85.6	4.0
Electronic products	1,666,107	176,304	5,837	10.6	3.3
Miscellaneous manufactures	3,082,809	622,379	63,529	20.2	10.2
Special provisions	75,879	49,672	2,261	65.5	4.6
<b>Total</b>	<b>20,104,499</b>	<b>12,641,423</b>	<b>1,750,504</b>	<b>62.9</b>	<b>13.8</b>

Source: Compiled from official statistics of the U.S. Department of Commerce.

Note: Calculations based on unrounded data. Import data do not include U.S. Virgin Island imports. Import figures are based on customs value. Dutiable import share is dutiable imports divided by imports for consumption. Weighted average duty is calculated duties collected divided by dutiable imports. Special provisions include imports under chapters 98 and 99 of the Harmonized Tariff Schedule of the United States.

## Annex III

### Invasive Species

#### Indicative list of known invasive species in TPP countries/regions

Invaded Region/Country	Species	Notes
South America	Red-Eared Slider ( <i>Trachemys scripta elegans</i> )	Native to the southeastern United States. The most popular turtle in the pet trade.
	Dotted Duckweed ( <i>Landoltia punctata</i> )	Native to Australia and Southeast Asia. Spread via agriculture and the aquarium trade and used as a means to absorb excess nutrients in bodies of water.
	Blackwood Acacia ( <i>Acacia melanoxylon</i> )	Native to Australia and present in the United States. Commonly found in the nursery trade.
	Beaver ( <i>Castor Canadensis</i> )	Native to most parts of North America. Introduced to Tierra del Fuego to establish a fur trading industry.
Australia	Cane toad ( <i>Bufo marinus</i> )	Native to Central and South America and present in Hawaii. Associated with the pet trade and sea freight.
	Red fire ant ( <i>Solenopsis invicta</i> )	Native to South America and present in the United States. Associated with movement of agricultural products, building materials and shipping containers.
	European green crab ( <i>Carcinus maenas</i> )	Native to Europe and North Africa and present in the United States. Introduced through ballast water.
	Salvinia ( <i>Salvinia molesta</i> )	Native to South America and present in the United States. Introduced through the pet and nursery trades.
	Fireweed ( <i>Senecio madagascariensis</i> )	Native to Africa and present in Hawaii. Introduced through the horticultural trade.
New Zealand	Salvinia ( <i>Salvinia molesta</i> )	Native to South America, is an ornamental plant that has proven invasive.
	Johnson grass ( <i>Sorghum halepense</i> )	Native to the Mediterranean and also present in the United States, has been introduced for agricultural purposes, but is now being actively controlled.
	Australian termites ( <i>Coptotermes acinaciformis</i> and <i>Porotermes adamsoni</i> )	Native to Australia and transported through infested materials, have been discovered, but not established.

Japan	Common Raccoon ( <i>Procyon lotor</i> )	Native to North America. Imported for the pet trade.
	Largemouth bass ( <i>Micropterus salmoides</i> )	Native to eastern North America. Introduced in the 1920s for game fishing.
	Red swamp crayfish ( <i>Procambarus clarkii</i> )	Native to southeastern United States. Introduced in the 1920s for cultivation as a food source for bull frogs ( <i>Rana catesbeiana</i> ), which were also introduced from North America.
	Pine wood nematode ( <i>Bursaphelenchus xylophilus</i> )	Native to North America. Likely introduced in the late 1800s/early 1900s on imported lumber.
North America	Zebra mussel ( <i>Dreissena polymorpha</i> )	Native to the Black, Caspian and Azov Seas. Introduced by ballast water or hull fouling. Invasive in the Great Lakes, U.S. Midwestern rivers and Western lakes and the Canadian Eastern provinces.
	Asian long horned beetle ( <i>Anoplophora glabripennis</i> )	Native to China and Korea. Introduced through solid wood packing material. Introduced populations found in Massachusetts, Ohio, New Jersey, New York, and Ontario (control, eradication, and quarantine efforts ongoing).
	Emerald ash borer ( <i>Agrilus planipennis</i> )	Native to eastern Russia, northern China, Japan, and Korea. Introduced through solid wood packing materials and spread by movement of firewood. Present in almost 20 north central and northeast U.S. states, Ontario, and Quebec (quarantine efforts ongoing).
	Australian spotted jellyfish ( <i>Phylloriza punctata</i> )	Native to Indo-Pacific waters. Introduced through ballast water. Introduced in Gulf of Mexico and California coast.
	Lionfish ( <i>Pterois volitans</i> )	Native to Indo-Pacific waters. Introduced through the pet/aquarium trade. Present in central and southern Atlantic coast states in the United States, Gulf of Mexico, and eastern coast of Mexico.
	Asian tiger mosquito ( <i>Aedes albopictus</i> )	Native to Southeast Asia. Introduced to the United States most likely in standing water (e.g., in used tires). Potential vector for Dengue Fever, Yellow Fever, La Crosse encephalitis, and dog heartworm.
	Burmese Python ( <i>Python molurus bivittatus</i> )	Native to southern Asia. Introduced to United States via pet trade and release.

Source: U.S. National Invasive Species Council

**Indicative list of known invasive species established in the United States originating from TPP countries**

Native Region/Country	Species	Notes
Australia	Hydrilla ( <i>Hydrilla verticillata</i> )	Introduced through the pet trade.
	Melaleuca ( <i>Melaleuca quinquenervia</i> )	Introduced through forestry practices.
	Water flea ( <i>Daphnia lumholtzi</i> )	Introduced through the pet trade and aquaculture.
	Australian spotted jellyfish ( <i>Phyllorhiza punctata</i> )	Introduced through ballast water and/or hull fouling.
	Australian acacia ( <i>Acacia mearnsii</i> )	Introduced through agriculture and trade in ornamentals.
Japan	Japanese knotweed ( <i>Fallopia japonica</i> )	Introduced as an ornamental plant in the late 1800s.
	Japanese honeysuckle ( <i>Lonicera japonica</i> )	Introduced as an ornamental plant and for soil stabilization in the late 1800s.
	Asian brown seaweed/wakame ( <i>Undaria pinnatifida</i> ), Asian shore crab ( <i>Hemigrapsus sanguineus</i> ) and the Japanese sea star ( <i>Asterias amurensis</i> )	Found on marine debris (a large floating dock) washed over from the 2011 tsunami, along with the European blue mussel ( <i>Mytilus galloprovincialis</i> ), which itself is an invasive species in Japan.
	New Zealand mudsnail ( <i>Potamopyrgus antipodarum</i> )	Introduced and spread through ballast water and hull fouling.
South America	Boa Constrictor ( <i>Boa constrictor imperator</i> )	Native to Mexico, Central America, Colombia, Ecuador and Peru. Common commodity in the pet trade and release into the wild is the major cause of spread.
	Common caiman ( <i>Caiman crocodilus</i> )	Native to Central and South America. Common in the pet/aquarium trade and valued for its hide. Release is a common vector for its spread.

Source: U.S. National Invasive Species Council

## Comparison of ecological and climatic characteristics of the United States and TPP countries<sup>88</sup>

South America: In the case of South America, Chile and Peru have geographies that span from the Andes Mountains to more temperate and equatorial climates. More specifically, both Chile and Peru share humid temperate climates (similar to the Appalachian region), Arctic tundra (northern Alaska), and cold arid desert (Great Basin Desert). Chile also includes a temperate climate (analogous to the Pacific Northwest). Peru shares an additional number of climatic zones, including a humid equatorial climate (parts of Hawaii); equatorial monsoonal climate (parts of Hawaii and southeastern Florida); equatorial climate with a dry winter (southern Florida and parts of Hawaii); hot arid desert (Sonoran Desert); cold arid steppes (Great Plains and Rocky Mountain region); and humid temperate climates with a hot summer (American Southeast).

Oceania: Australia and New Zealand introduce another range of common habitats. For Australia, given its size and varying geographies, there is a significant overlap in climatic zones with the United States. Matches include Australia's tropical monsoon and tropical savanna regions in the northern part of the country (tropical climates of Hawaii and southern Florida); the hot and cold desert regions of the Australian interior (southwestern United States and the Great Basin); the hot semi-arid climate in the Australian Outback (southwestern United States); the cold semi-arid climate in southern Australia (Great Plains region); the Mediterranean climate in parts of western and southern Australia (U.S. West Coast); the humid subtropical climate of eastern Australia (southeastern United States); and the oceanic climate of southeastern Australia (Pacific Northwest and Aleutian Islands). Most of New Zealand is considered oceanic climate, which matches that of the Pacific Northwest and Aleutian Islands.

Southeast Asia: Southeast Asia is predominantly equatorial and fully humid, which is comparable to Hawaii's Big Island. Vietnam also has some equatorial monsoonal regions (parts of Hawaii and southeastern Florida) and equatorial climates with a dry winter (parts of Hawaii and southern Florida).

North America: Canada, Mexico, and the United States cover three of the world's seven biogeographic realms (Nearctic, Neotropical, and Oceania). Combined they include 38 ecoregions, representing all but one of the 26 major habitat types. The North American Commission on Environmental Cooperation further delineates 14 unique priority conservation regions, many of which are shared. This extensive overlap of biogeographic regions combined with contiguous borders suggests that most invasive species found in Mexico or Canada could also be invasive in the United States and vice versa. This overlap also suggests that there is a significantly lower risk of species native to Mexico or Canada becoming invasive in the United States.

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<sup>88</sup> This review uses the Köppen-Geiger climate classification system. See Kottek, M., Grieser, J., Beck, C., Rudolf, B., & Rubel, F. (2006). World Map of the Köppen-Geiger climate classification. *Meteorologische Zeitschrift*, 259-263.

## Annex IV

### Environmental Cooperation Activities with TPP Countries

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

#### A. Department of State

The U.S. Department of State coordinates, and in some cases supports, trade-related environmental cooperation with existing U.S. free trade agreement partner countries, including TPP countries Chile, Peru, and Singapore. This cooperation includes government to government technical assistance, examples of which are reflected below. The U.S. Department of State also funds non-governmental organizations to implement cooperation activities, such as the World Environment Center's work with Chilean olive oil producers to adopt cleaner production practices.

The U.S. Department of State also works to support stronger regional institutions to advance the cooperative and sustainable management of shared resources, such as the Mekong River Commission. This includes TPP country Vietnam.

#### B. Department of the Interior

##### Chile

Under the framework of the U.S.-Chile Environmental Cooperation Agreement, the Department of the Interior (DOI) is cooperating with Chile on protected area management, glacier monitoring, biodiversity governance, and best environmental practices for mining. This includes work that supports new and existing sister park arrangements between U.S. and Chilean parks, strengthens laws and regulations for CITES enforcement and compliance, and facilitates technical exchanges on mine inspections, decommissioning, and permitting.

##### Mexico

DOI is cooperating with the Government of Mexico to promote and implement transboundary conservation activities in the Big Bend – Rio Bravo region along the United States – Mexico border.

##### Peru

DOI has partnered with other U.S. agencies and Peru's Ministries of Environment and Mining to help strengthen Peru's regulation of artisanal gold mining in the Peruvian Amazon, an activity that often results in mercury contamination.

## Vietnam

DOI is planning a technical assistance program on environmental safeguards for large infrastructure development in the Lower Mekong countries, including Vietnam. Vietnam's Ministry of Natural Resources and the Environment will co-host with DOI a remote sensing and land cover mapping training session in Hanoi in late October 2013.

### **C. Environmental Protection Agency**

## Chile

Under the framework of the U.S.-Chile Environmental Cooperation Agreement, the Environmental Protection Agency (EPA) is cooperating with Chile on public participation in environmental decision-making, environmental enforcement and compliance, environmental education, and best environmental practices for mining. This includes work to develop tools that engage the public in environmental issues and integrate environmental topics into school curricula, enhance environmental impact assessment processes and technologies, strengthen procedures for environmental adjudications and inspections, and facilitate technical exchanges on risk evaluation and cost effective remediation for mining.

## Japan

EPA cooperation with Japan has focused largely in recent years on decontamination and remediation of nuclear contaminated sites following the Great East Japan Earthquake and Fukushima Daiichi nuclear incident. EPA has shared information with Japan on decontamination and risk communication strategies and other activities under the U.S.-Japan Bilateral Commission for Civil Nuclear Cooperation which EPA co-chairs.

## North America

Through the trilateral Commission for Environmental Cooperation, EPA works closely with the Governments of Canada and Mexico on a range of projects and activities on air quality and climate change, ecosystem protection and restoration, and materials management. Some highlights include the creation of a forum for Canada, Mexico and the United States to share information and expertise in cooperative efforts to curb illegal international trade, increased access to information, awareness and understanding of the sources and handling of pollutants of common concern across North America through the continent-wide expansion of the North American Pollutant Release and Transfer Registry, and the training of more than 600 environmental, wildlife, and customs officials to identify illegal shipments of environmentally regulated materials, such as ozone-depleting materials, hazardous waste, and endangered species.

## Singapore

The EPA and Singapore's Public Utilities Board (PUB) signed a Memorandum of Understanding

(MOU) on June 27, 2013 on sustainable urban water management. Through cooperative research and regular exchanges, EPA and PUB are working together to find and implement innovative and sustainable approaches to water resource management and long term adaptation to climate change. This MOU supports the objectives of the U.S.-Singapore Memorandum of Intent on Cooperation in Environmental Matters.

#### Vietnam

EPA co-chairs the annual U.S-Vietnam Joint Advisory Committee on Agent Orange/Dioxin, which coordinates joint research and provides technical advice to policy makers to help develop environmental and health initiatives. EPA also provides technical assistance to remediate dioxin-contaminated sites in Vietnam.

### **D. Department of Agriculture**

#### Chile

Under the framework of the U.S.-Chile Environmental Cooperation Agreement, the Department of Agriculture is cooperating with Chile on sustainable tourism and public use planning in protected areas (U.S. Forest Service) and disease mitigation in aquaculture (APHIS-VS).

#### Peru

Through the Peru Forest Sector Initiative, the U.S. Forest Service is working to strengthen institutions, promote transparency, participation and access to information, and to track and verify the legal origins of timber. The collaboration in Peru focuses on the development of an information and control system for chain of custody for CITES-listed species, support for population studies for mahogany and cedar, design of forest inventories, specialized expertise in yield determination and methodology, development of skills in forest and wildlife management, organized design and training to regional governments, anti-corruption plans for the forest sector, and environmental investigation and prosecution training.

#### Vietnam

In 2012, the U.S. Forest Service worked with other U.S. agencies to identify specific activities in Vietnam that improve capacity for forest carbon measurement, inventory, and monitoring, and to formulate priorities collaboratively with the Government of Vietnam. Some of these activities are part of a global U.S. Government program called SilvaCarbon, which strives to enhance the capacity of countries to pursue economic development while lowering greenhouse gas emissions from land use, forest degradation, and deforestation.

### **E. Department of Justice**

In 2011, the Department of Justice Environment and Natural Resources Division (ENRD) and EPA implemented a seminar on adjudication of environmental cases with the Justices of the

Chilean Supreme Court. In the fall of 2013, ENRD and EPA will implement a training program on environmental adjudication for judges and staff of Chile's Environmental Tribunal, a recently established special court with jurisdiction in environmental matters.

## **F. Department of Commerce, National Oceanic and Atmospheric Administration (NOAA)**

### Australia

NOAA engages in an extensive range of cooperative activities with Australia through bilateral agreements as well as through multilateral fora such as the Coral Triangle Initiative (CTI), the International Coral Reef Initiative (ICRI), Regional Fisheries Management Organizations (RFMOs), the International Monitoring, Control, and Surveillance (IMCS) network, and the Asia-Pacific Economic Cooperation (APEC) forum. Areas of cooperation include fisheries management, fisheries enforcement issues, ecosystem modeling, bycatch reduction technology, shark research, coral reef monitoring, and ocean observations and modeling.

### Canada

NOAA cooperates with Canada to sustainably manage shared fisheries resources (including Pacific halibut, North Pacific salmon, Pacific coast albacore tuna, and Pacific hake/whiting) through several bilateral treaties as well as through Regional Fisheries Management Organizations (RFMOs) and multilateral fora. NOAA and the U.S. Coast Guard also collaborate with Canada on at-sea enforcement issues.

### Chile

NOAA cooperates with Chile through a bilateral fisheries Memorandum of Understanding, as well as multilaterally through the South Pacific Regional Fisheries Management Organization, the Commission for the Conservation of Antarctic Marine Living Resources, the International Monitoring, Control, and Surveillance network, and the Asia-Pacific Economic Cooperation (APEC) Forum. Areas of cooperation include fisheries enforcement, environmental aspects of aquaculture, conservation of sharks, cetaceans, and marine turtles, bycatch assessment and reduction, and conservation and management of marine protected areas.

### Japan

NOAA works with Japan on fisheries issues through Regional Fisheries Management Organizations. NOAA also has a long history of cooperation with Japan in ocean research and environmental satellite activities. Key areas of collaboration include ocean climate observations, deep ocean exploration, ocean climate modeling, and ocean acidification.

### Malaysia

NOAA cooperates with Malaysia primarily through the Association of Southeast Asian Nations

and APEC. Examples of activities include:

- Strengthening disaster preparedness and response as part of the Indian Ocean Tsunami Warning System (IOTWS), including technology deployment and extensive training to augment detection, prediction, warning, and communications systems.
- Working with researchers and resource managers on leatherback sea turtle conservation projects.
- Promoting sustainable development of marine and coastal resources and governance of the large marine ecosystems of the seas of East Asia, through the Partnerships in Environmental Management for the Seas of East Asia (PEMSEA) organization.
- Expanding the use of earth observations for all-hazards predictions, weather forecasting, climate monitoring, and other uses through participation in GEO.

### New Zealand

NOAA maintains a successful partnership with New Zealand on a wide range of science issues, with the majority of activities focusing on climate and oceans/marine sciences. NOAA also cooperates multilaterally with New Zealand through RFMOs, APEC, and the International Monitoring, Control, and Surveillance network (IMCS).

### Peru

NOAA cooperates with Peru through the U.S-Peru Science and Technology Agreement, RFMOs, the Inter-American Tropical Tuna Commission (IATTC), the Agreement on the International Dolphin Conservation Program (AIDCP), APEC, and the IMCS. NOAA also cooperates with Peru through the International Satellite System for Search and Rescue. Areas of cooperation include sea turtle research, assessment and mitigation of seabird bycatch, and shark conservation.

### Vietnam

NOAA is working with Vietnam to build capacity and promote the application of principles of integrated coastal management in special protected marine and terrestrial areas that are under heavy sectoral and development pressures.