

International Trade After the Economic Crisis: Challenges and New Opportunities



UNITED NATIONS

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FOREWORD

The severe contraction of world trade volume during the recent global crisis – the steepest since the Great Depression – was a major blow to the global economy and to countries which had pursued development strategy of export-led growth. In the aftermath of the crisis many governments in developed and developing countries contemplated or were pushed into using trade policy instruments, especially in the form of non-tariff measures (NTMs), to protect their domestic industries and producers. The danger of “beggar-thy-neighbor” protectionist policies was again a close reality.

Happily, initial fears of a mutually devastating protectionist war in response to the economic crisis did not materialize. This was thanks to a large extent, to the strength of the existing rules-based multilateral trading system. However, the threat of retaliatory protectionism is not yet over and requires the full attention of the international community in the post-crisis policy environment to guard against it. It is important therefore to continue monitoring and analyzing trade policy actions, particularly NTMs and for that, we need comprehensive and accurate information.

The financial and economic crisis has changed the landscape of economic policy and presents one of those rare occasions when a new direction could be taken. Opportunities exist in the area of trade policy to adapt the international trade agenda to the changing requirements and expectations of the private sector. There are also substantial business opportunities arising in new areas, such as environmental goods and ‘green’ technologies.

This publication aims to provide decision makers in government and the private sector with a post-crisis analysis of some of the major trade challenges and opportunities, particularly for developing countries. It represents the continuation of a collaborative project between UNCTAD and JETRO (Japan External Trade Organization).

I would like to express my gratitude to JETRO for its cooperation and support in making this joint collaboration possible.



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EXECUTIVE SUMMARY

The purpose of this year's UNCTAD-JETRO joint research is to investigate the new economic realities in international trade that are evident particularly after the 2008 financial crisis, and to highlight the issues that are key to the future of pro-trade as well as pro-development international trading system.

New economic reality 1: Post-crisis trade-restrictive measures and multi-layers of trade rules

Chapter I examines the trade restrictive measures that were employed by both developed and developing countries as a policy response to the 2008 financial crisis, and their interaction with the existing multilateral trade rules under the WTO. One piece of good news from the recent crisis is that it has demonstrated that the multilateral trade rules under the World Trade Organization (WTO) worked effectively as a “bulwark” against a wide-spread protectionism in the light of global recessionary concerns. Almost all trade policy measures that were introduced as a response to the financial crisis were consistent with the WTO rules. However, a closer look at the WTO rules also suggests that they are not adequate for today's rapidly evolving economic realities, where international trade runs through much more intricate webs, involving a greater number of countries, firms, and products, as well as being associated with a greater range of non-trade concerns such as environmental protection, than was at the time of the establishment of the WTO. Despite the effectiveness of the existing WTO rules, however, certain new trade restrictive measures, such as bailing out of ailing firms and “buy-local” principles in government procurement, fell in the areas where the WTO rules provided only an ambiguous legal framework.

With these changes, the business sectors of the major developed and emerging economies appear to be increasingly leaning towards regional or bilateral free trade agreements (FTAs) as the way to make up for trade rules that were missing under the multilateral trade framework. Even long before the financial crisis, the gap between the contents of the multilateral trade rules under the WTO and diversifying needs of today's corporate activities were becoming perceptible. As the business activities continued to be globalized, firms in major and emerging economies have become keen to create a predictable business environment with respect to investment, services and the protection of intellectual property rights, through FTAs with some of their strategic partner countries. If this trend continues, and if the Doha Round of negotiations remains in its present almost moribund state, then there is a serious risk that the multilateral trading system will gradually lose its relevance in international trade.

Moreover, the current trend of trade rulemaking outside the WTO framework could bear potentially negative implications on developing countries, particularly those which are not always considered as strategic partners in international trade. Chapter II points out that major economies particularly the United States of America and the European Union (EU) use their FTAs as a way to transmit their regulatory frameworks of trade and investment directly to their FTA partners. The United States or the EU FTAs with developing countries contain a plethora of “WTO-plus” and “WTO-extra” clauses, the issues which developing countries remain hesitant towards liberalizing, or even negotiating the liberalization, under the WTO. How should developing countries approach the future trade rulemaking in bilateral or regional FTAs? This chapter raises a number of policy questions in this regard.

New economic reality 2: The growth of the environmental businesses require more elaborate multilateral trade rules

Another significant element of the new economic realities is the rapid growth of environmental market. Chapter III presents a detailed analysis of the new business opportunities in the environmental sector, and provides a thorough description of the size of environmental market, governments’ supportive policies, and environmental business competitiveness of a number of developed and developing countries. The growth prospect of environmental businesses is incontestable: the size of today’s global environmental market is estimated to be somewhere between 2 and 10 per cent of global GDP (depending on how it is estimated), and is projected to grow on average by 5 per cent per annum for the next 10 years. New businesses are springing up in the low-carbon (or energy-efficient) and renewable energy sectors, in addition to traditional environmental sectors, such as pollution control and water purification. The growth of the market reflects the pressing need to tackle pollution and climate change (e.g. controlling greenhouse gas emissions), the outlook of the potential depletion of strategic energy commodities combined with the increasing demand for energy in developing countries. Partly because of these growth prospects, major economies and emerging economies, including China, Germany, Japan, the Republic of Korea, and the United States, included “green” investment in their economic stimulus packages, the total value of which amounts to US\$ 400 billion, as reported in the UNCTAD Trade and Environment Review 2009/2010.

A growing number of non-tariff measures (NTMs) linked to the environmental standards now apply to the final products as well as to the production and processing methods, such as those on the level of energy efficiency and those to limit hazardous substances in goods and in production processes. Such measures cover an enormous range of traded goods as well as services sectors, and indicate that they have a potential to fundamentally overhaul the entire production methodology. With respect to tariff barriers, after the collapse of the Copenhagen climate talks in December 2009, a number of the EU member countries (and other developed countries) hinted at the possibility of applying “carbon tariffs” that could be “a tax levied on imported goods proportional to the carbon emitted in the manufacture of those goods” (according to Paul Krugman’s essay “Building a green economy” in the New York Times, April 5, 2010). The aim of such measures is clear: it is to ensure the competitiveness of European firms, which have to comply with EU environmental regulations, including paying for permits to emit carbon dioxide, vis-à-vis the industries of countries without such regulations.

Market opportunities of such magnitude should be matched by fair, transparent and effective multilateral trade rules. In the Doha Round, the negotiations on trade and environment focus on, inter alia, reduction or abolition of tariff and non-tariff barriers (NTBs) to environmental goods and services. The progress of the negotiations, however, has been sluggish. There is a wide gap between the negotiating positions of developed and developing countries. A group of developed countries push for environmental tariff cuts on a wide range of products at “over and above” the level to be agreed in the NAMA negotiations. Many developing countries, on the other hand, remain suspicious that developed

countries are using the climate change concerns as a strategic instrument to help their industries capture as large a share of the environmental markets as possible.

New economic reality 3: Non-tariff measures: the key trade policy instrument to restrict market access

The increasing use of NTMs is not only found in the environmental market. As tariff barriers have been reduced as a result of unilateral, bilateral/regional and multilateral trade liberalization in the past decade, NTMs has taken over the centre stage of trade policy instruments. The potential adverse effect of NTMs on international trade has been widely debated. But they often lacked the substance as there was not even a multilaterally agreed definition on what constitute NTMs. In this context, a group of international agencies, which is led by UNCTAD and includes World Bank, the Organization of Economic Cooperation and Development (OECD), and WTO among others, attempts to clarify the issues concerning NTMs through: (i) agreeing on a comprehensive classification of NTMs; (ii) setting up methodologies for systematically collecting information on NTMs; and (iii) considering ways to make NTM information usable for future trade policy analysis. In this regard, Chapter IV reports the progress of the activities by the multi-agency team, and describes in detail the contents of a newly agreed classification of NTMs.

CHAPTER I

POST-FINANCIAL CRISIS TRADE- RESTRICTIVE MEASURES AND THE NEED FOR DISCIPLINE IN INTERNATIONAL TRADE¹

1. Introduction of trade restrictive measures following the financial crisis²

In times of economic recession, protectionist sentiments against imports competing with domestic products tend to rise. Domestic businesses demand that their government introduce measures to restrict imports, and government responds to them. Such trade-restrictive actions taken by one country can trigger similar actions by other countries, creating the possibility that protectionist trade policies will spread across the world.

Since the global financial crisis that started in October 2008, countries started to impose various kinds of trade-restrictive measures (see Table I-1 below). The United States Government, for example, instituted the Recovery and Reinvestment Act of 2009 in February 2009, which included a “buy American” clause to encourage the purchase of domestic products. Following the entry into effect of this provision, “buy Indonesian” and “buy Victorian” campaigns started (the latter in the Australian state of Victoria). European countries such as Germany, France, and the United Kingdom have successively announced bail-out measures for their automotive industries, and Argentina, India and Indonesia have introduced new import licensing systems. Ecuador, Russia and Ukraine have raised tariffs on a wide range of imported products, including automobiles, electrical goods, iron and steel, and machinery. In October 2008, in response to a potential surge of trade-restrictive measures worldwide, the WTO established a task force to monitor the introduction of new trade-related measures.³

¹ This chapter was prepared by the Japan External Trade Organization (JETRO).

² The source or legal basis of any country-specific description of new trade-related measures is given in Table I-1.

³ The annual report by the Director-General of the WTO to the WTO Trade Policy Review Body, entitled “Overview of Developments in the International Trading Environment” (WT/TPR/OV/12), presents the result of the monitoring undertaken during the period between October 2008 and October 2009.

Table I-1. Main trade-limiting measures taken by countries in the wake of the financial crisis

Measure	Main corresponding WTO agreement	Country/Region	Description	Date of Introduction	Basis
General tariff hike	GATT (General Agreement on Trade and Tariffs)	Russia	<ul style="list-style-type: none"> The government of Russia has periodically increased tariff rates. Tariff hikes have been applied to automobiles, automobile bodies, meat, combines, steel products and televisions in the past. The tariff hike lasts for a period of 9 months or one year. The tariff on passenger cars (gasoline engine) less than 3 years old was raised from 25% or not less than 1.2-2.35 euros per cubic centimeter of cylinder volume (with some exceptions), to 30% or not less than 1.2-2.8 euros per cubic centimeter of cylinder volume. The tariff on flat-screen televisions rose from 10% to 15%. 	<p>November 14, 2008</p> <p>January 1, 2009</p> <p>January 12, 2009</p> <p>February 14, 2009</p> <p>April 4, 2009</p> <p>May 7, 2009</p>	<p>Russian Federal Government Act of October 10, 2008 No. 745;</p> <p>Russian Federal Government Act of December 5, 2008 No. 903;</p> <p>Russian Federal Government Act of December 8, 2008 No. 918;</p> <p>Russian Federal Government Act of January 9, 2009 No. 9;</p> <p>Russian Federal Government Act of January 9, 2009 No. 12;</p> <p>Russian Federal Government Act of February 26, 2009 No. 174;</p> <p>Russian Federal Government Act of March 31, 2008 No. 273.</p>
		India	<ul style="list-style-type: none"> Raised basic tariff rate on some steel products from 0% to 5% and raised basic tariff rate on soybean oil from 0% to 20%. 	18.11.2008	Ministry of Finance, Notification No. 122, November 18, 2008
		Turkey	<ul style="list-style-type: none"> Raised import taxes on some steel products, including hot flat-rolled steel (from 5% to 13%) and cold flat-rolled steel (from 6% to 14%). 	01.01.2009	Official Gazette No. 27097, December 31, 2008
		Viet Nam	<ul style="list-style-type: none"> Periodic hikes in customs duties on newsprint paper, writing utensils, dairy products, meat, semi-finished steel products, flat-rolled products, bar steel and iron wire, refined copper and copper alloy, alloy steel bar and others. 	<p>February 16, 2009</p> <p>March 9, 2009</p> <p>March 20, 2009</p> <p>April 1, 2009</p> <p>April 8, 2009</p> <p>April 15, 2009</p>	<p>Ministry of Finance Circular No. 26/2009/QĐ-BTC, February 10, 2009; Ministry of Finance Circular No. 39/2009/TT-BTC, March 3, 2009; Ministry of Finance Circular No. 52/2009/TT-BTC, March 17, 2009; Ministry of Finance Circular No. 58/2009/TT-BTC, March 25, 2009; Ministry of Finance Circular No. 67/2009/TT-BTC, April 3, 2009; Ministry of Finance Circular No. 75/2009/TT-BTC, April 13, 2009</p>
		Ukraine	<ul style="list-style-type: none"> The Ukrainian government imposed a temporary surcharge, beginning on March 7, 2009, of up to 13% on items designated non-critical. On May 18, 2009 the Ukrainian government notified the WTO that it was withdrawing the temporary surcharge, with the exception of refrigerators (HS8418) and passenger cars (HS87031). 	07.03.2009	Ukraine Law No. 924-VI, February 4, 2009
		EU	<ul style="list-style-type: none"> Reintroduced customs duties on cereals that had been temporarily removed. Duties were set at 12 euros/ton for common wheat, 16 euros/ton for barley, 7 euros/ton for millet and 8 euros/ton for barley used in malt. 	26.10.2008	European Commission Regulation No. 1039/2008 of October 22, 2008 (published in the Official Journal of the European Union, Issue L280, October 23, 2008).
		Brazil	<ul style="list-style-type: none"> Increased tariffs from tariff-free to a maximum of 14% on seven steel items, including hot-rolled steel sheets and cold-rolled coils. 	05.06.2009	Chamber of Foreign Trade Decision No. 28, June 5, 2009

Table I-1 (continued)

Measure	Main corresponding WTO agreement	Country/Region	Description	Date of introduction	Basis
		Ecuador	<ul style="list-style-type: none"> Introduced an import-quota system and raised import taxes for a one-year period, citing a deteriorating balance of payments. Applied to imports from the Andean Community (CAN). Covered a wide array of products, including agricultural products; foodstuffs; soap; leather; paper and pulp; textiles and apparel; ceramic wares; glass; iron, copper and aluminum products; base-metal products; machinery, electronic appliances; sunglasses and other eyeglass products; cameras; movie projectors; watches; percussion instruments; furniture and others. 	Successive enforcement from January 23, 2009	Foreign Trade and Investment Council of Ecuador Resolution No. 458, November 26, 2008; Foreign Trade and Investment Council of Ecuador Resolution No. 466, January 1, 2009; Foreign Trade and Investment Council of Ecuador Resolution No. 468, January 30, 2009; Foreign Trade and Investment Council of Ecuador Resolution No. 469, February 12, 2009; Foreign Trade and Investment Council of Ecuador Resolution No. 470, February 19, 2009; Foreign Trade and Investment Council of Ecuador Resolution No. 477, March 6, 2009; Foreign Trade and Investment Council of Ecuador Resolution No. 478, March 6, 2009; Foreign Trade and Investment Council of Ecuador Resolution No. 480, March 18, 2009; Foreign Trade and Investment Council of Ecuador Resolution No. 481, April 1, 2009; Foreign Trade and Investment Council of Ecuador Resolution No. 482, April 7, 2009; Foreign Trade and Investment Council of Ecuador Resolution No. 484, April 30, 2009.
Standards and certification	Agreement on Technical Barriers to Trade (TBT)	Malaysia	<ul style="list-style-type: none"> Introduction of compulsory standards for 57 steel items including bar steel and stainless steel. 	15.11.2008	2008 Customs (Prohibition of Imports) Order Rev. 5; 2008 Customs (Prohibition of Imports) Order Rev. 5 guideline. (WTO) Permanent Delegation of Malaysia to the WTO
		India	<ul style="list-style-type: none"> Mandated compliance (compulsory standard) with Bureau of Indian Standards (BIS) for six steel products including iron wire and bar steel from September 12, 2008. Compulsory standards were scheduled to be introduced for 11 items, including galvanized steel sheet, tinplate and certain steel sheet on February 12, 2009, but it was announced on February 10, 2009 that implementation would be postponed for one year and that three items would be exempted. 	6 items: Sept 12, 2008 8 items: February 12 enforcement postponed for one year	Gazette of India, September 9, 2008; Gazette of India, February 10, 2009
		India	<ul style="list-style-type: none"> Imports of toys made in China were banned for a six-month period (HS No. 9501, 9502, 9503). This was relaxed on March 2, 2009, to allowing imports of toys made in China on condition that, among other things, they meet the standards of the American Society for Testing and Materials (ASTM) and International Organization for Standardization (ISO). 	Jan 23, 2009 enforcement March 2, 2009 revision	Ministry of Commerce and Industry Notification No. 82, January 23, 2009; Ministry of Commerce and Industry Notification No. 91, March 2, 2009.
		Indonesia	<ul style="list-style-type: none"> Mandated compliance (compulsory standard) with the Indonesian National Standard (SNI) for hot-rolled sheet steel, zinc and aluminum alloy-plated sheet steel. 	May 6, 2009 July 6, 2009 September 27, 2009 scheduled enforcement	Minister of Industry Decree No. 01/M-IND/PER/1/2009, January 6, 2009; Minister of Industry Decree No. 02/M-IND/PER/1/2009, January 6, 2009; Minister of Industry Decree No. 32/M-IND/PER/3/2009, March 16, 2009; Minister of Industry Decree No. 36/M-IND/PER/3/2009, March 27, 2009; Minister of Industry Decree No. 37/M-IND/PER/3/2009, March 27, 2009; Minister of Industry Decree No. 38/M-IND/PER/3/2009, March 27, 2009; Minister of Industry Decree No. 39/M-IND/PER/3/2009, March 27, 2009.

Table I-1 (continued)

Measure	Main corresponding WTO agreement	Country/Region	Description	Date of introduction	Basis
		Ecuador	<ul style="list-style-type: none"> Mandated compliance (compulsory standard) for cement, diesel oil, matches, tyres, clothing, glass, steel products, aluminum, refrigerators, electronic appliances, tractors, automobiles and automobile parts and requires the submission of certification at the time of importation. From March 15, 2009, an interim measure allows companies with ISO9001 certification to make a self-declaration of conformity. 	02.02.2009	Ministry of Industries and Competitiveness National Quality Council Directive No. 001-2008, No. 002-2008, December 1, 2008; Ministry of Industries and Competitiveness National Quality Council Directive No. 003-2008, December 18, 2008; Ministry of Industries and Competitiveness National Quality Council Directive No. 007-2008, February 2, 2009.
		Thailand	<ul style="list-style-type: none"> Toughened procedures for acquiring and renewing product specifications by the Thai Industrial Standards Institute (TISI). 	01.05.2009	Thai Industrial Standards Institute Proclamation TISI-R-PC-01, March 4, 2009.
		South Korea	<ul style="list-style-type: none"> Designated lithium rechargeable batteries as "industrial products subject to voluntary safety confirmation" under the "Quality Management and Safety Control of Industrial Products Act." Products must be certified as meeting safety standards by a testing organization before shipment or customs clearance. 	01.07.2009	Korean Agency for Technology and Standards Notification No 2008-1019
Import licensing system	Agreement on Import Licensing Procedures	India	<ul style="list-style-type: none"> Transferred the imports of steel products and automobile parts (gearboxes, bumpers, etc) from the "free" to "restricted" category. Accordingly, the import of these products will require a government licence. 	Effective from November 21 and November 24, 2008.	Ministry of Commerce and Industry Notification No. 63 (RE-2008)/2004-2009; Ministry of Commerce and Industry Notification No. 64 (RE-2008)/2004-2009.
		Indonesia	<ul style="list-style-type: none"> Introduced a registration system for importers of steel products, which requires: (1) importer registration, (2) regular reports on import performance, and (3) pre-loading inspections at ports, for 202 steel products including flat-rolled and shaped steel. The period of enforcement is from February 18, 2009 to December 31, 2010. Introduced a registration system for importers that requires importers of electric items, ready-made goods, children's toys, foodstuffs, beverages and other items to register and submit periodic reports on their import figures. Effective from December 15, 2008 to December 31, 2010. Further, imports are restricted to five ports and all international airports. 	Effective from February 18, 2008 (Registration system for importers of steel products). Effective from December 15, 2008 (Registration system for importers).	Regulation of the Minister of Trade No. 08; Regulation of the Director General of Metal, Machinery, Textile and Miscellaneous Industries No. 04 (Registration System for Importers of Steel Products); Regulation of the Minister of Trade No. 44 and No. 56; Regulation of the Director General of Foreign Trade, Ministry of Trade No. 14 (Importer Registration System); and Ministry of Industry and Trade Notice No. 63 and Notice No. 64.
		Argentina	<ul style="list-style-type: none"> Introduced non-automatic import licensing system covering products like joints for steel pipes, elevators, forging machines and other machinery, fabrics and textiles, automobile tyres and knives, combines, disks, tractors, furniture and fasteners (MEP Administrative Decision 61/2009 issued on March 4, 2009). 	Effective from November 30, 2009 588 • 589/2008 Effective from January 21, 2009 26/2009 Effective from March 26, 2009 961/2009	Ministry of Economy and Production Administrative Resolution 588/2008 and 589/2008; Ministry of Economy and Production Administrative Resolution 26/2009 and 61/2009

Table I-1 (continued)

Measure	Main corresponding WTO agreement	Country/Region	Description	Date of introduction	Basis
Government procurement	Agreement on Government Procurement	US	<ul style="list-style-type: none"> Included the "buy American" clause (Title 16 General Provisions) in the "American Recovery and Reinvestment Act of 2009," which requires use of American-made products in government procurement. Also includes language that stipulates that it "be applied in a manner consistent with the United States' obligations under international law." The "buy American" requirement can be waived when: (1) use of American products would be inconsistent with the public interest, (2) sufficient and reasonable quantity, and of a satisfactory quality is produced domestically, and (3) use of domestic product would increase the cost of the overall project by more than 25%. 	Signed February 17, 2009	American Recovery and Reinvestment Act Title XVI, General Provisions, "buy American"
		Indonesia	<ul style="list-style-type: none"> Enacted preferential treatment for domestic goods and services by government agencies in procurement on May 12, 2009, scheduled entry into force is in August 2009. Provides preferential pricing in bid tendering for products and services whose local content is above a certain threshold. Also provides preferential treatment for domestic firms when construction work on government public-works projects is contracted out. 	Enacted May 12, 2009	Regulation of the Minister of Industry No.49/M-IND/PER/5/2009 on use of Domestic Products in Procurement of Government Goods and Services.
		Australia	<ul style="list-style-type: none"> Strengthened, on the basis of the results of a 2008 evaluation, the State of Victoria's "Victoria Industry Participation Policy" (VIPP) (originally took effect in April 2001) which gives preferential treatment to local SMEs in government procurement. The policy applies to projects of over AU\$3 million in the city of Melbourne and over AU\$1 million elsewhere. Projects of over AU\$250 million are designated as "strategic projects" mandating extra preferential treatment to local SMEs over the normal local-content requirements. 	Applies to bids after July 1, 2009.	State of Victoria Department of Innovation, Industry and Regional Development website
		Australia	<ul style="list-style-type: none"> The State of New South Wales announced, in June 2009, a revision of its guidelines covering state-government procurement to provide preferential treatment to Australian and New Zealand companies. This includes: participation in tenders of over AU\$4 million requires the submission of an "industry participation plan" (IPP), and evaluation of a bid requires at least a 6% weighted score be given to the IPP, among other things. 	Announced June 2009.	New South Wales Government Procurement: Local Jobs First plan, June 6, 2009.
Consumer subsidies	GATT (General Agreement on Trade and Tariffs)	Malaysia	<ul style="list-style-type: none"> The government will pay 5,000 ringgit to the owner of a car that is at least ten years old to trade it in for a Proton or a Perodua. 	Announced March 10, 2009.	Supplementary Budget Plan, March 10, 2009

Sources: Prepared based on materials from the governments of several countries, the WTO, World Bank and "2009 Report on Unfair Trade" (METI).

(1.1) Tariff increases observed in certain nations

Following the financial crisis, a number of countries increased their tariffs. Ecuador, Russia and Ukraine increased tariffs on a large number of products, while Brazil, the EU, India, Turkey, and Viet Nam, among others, increased tariffs on specific items.

With regard to specific sectors, tariffs on iron and steel products were raised by a large number of countries. For instance, India increased its tariff on certain iron and steel products from zero to 5 per cent in November 2008. In January 2009, Turkey increased its tariff on hot flat-rolled steel from 5 per cent to 13 per cent, and on cold flat-rolled steel from 6 per cent to 14 per cent. In April 2009, Viet Nam increased its tariffs on half-finished iron and steel goods, flat-rolled steel, steel bars, steel wire, and iron and steel pipes by several percentage points in each case. In June 2009, Brazil increased tariffs on seven iron and steel products, including hot- and cold-rolled steel sheets, from zero to a maximum of 14 per cent.

Many countries increased tariffs on primary products, including agrifood products, which had been previously reduced to combat high commodity prices during the period prior to the financial crisis. For instance, in October 2008, the EU reintroduced tariffs on cereal which had been eliminated in January of that year.

Such tariff increases are not “illegal” under the WTO multilateral trading rules as long as the new tariff rate remains within the limit set by the bound rate.⁴ Under the General Agreement on Tariffs and Trade (GATT) of the WTO, member countries bind their tariffs, i.e. set upper limits to their tariff rates. The upper-limit tariff rate, or the “bound” rate, is not always the same as the rates that WTO members actually apply. In reality, in many countries there sometimes exists a wide gap between the bound tariff and the applied tariff.

(1.2) Increasing use of compulsory standards for iron and steel products

Another notable trade-restrictive measure that has been applied by many developing countries since the financial crisis is the tightening of regulations regarding standards and certification. A succession of countries has started to impose new or stricter product standards.⁵ Argentina, Ecuador, India, Indonesia and Malaysia are among the countries that have introduced new compulsory standards in the wake of the financial crisis, most notably for iron and steel products.

In September 2008, India introduced regulations requiring compulsory compliance with the standards set by the Bureau of Indian Standards (BIS) for six iron and steel products, including steel wire and steel bars. In February 2009, compulsory standards for eleven further products, including magnetic steel, tin plate, and certain types of steel sheet, were announced. In light of the opposition from other countries and the domestic business community, however, the Government announced immediately before the standards were to go into effect that the implementation of the regulation would be deferred for a period of one year, and three products would be excluded from the regulation.

In November 2008, Malaysia replaced its import licence system for 57 iron and steel products including steel bars and stainless steel, with compulsory standards. The standards were formulated by the Construction Industry Development Board (CIDB) in the case of iron and steel products used in

⁴ In the case of Russia, because the country has not acceded to the WTO, it has made no commitments to bound rates, and may therefore increase tariffs as it sees fit.

⁵ Every country possesses its own unique standards, like the Japan Industry Standards (JIS); they are termed compulsory standards when compliance is obligatory rather than voluntary.

construction, and the Standards and Industrial Research Institute of Malaysia (SIRIM) in the case of other iron and steel products. It has been indicated that the introduction of these compulsory standards has increased costs for foreign companies that deal with the target products.

In January 2009, Indonesia announced its intention to make it compulsory for imports of products, such as hot-rolled steel sheets, steel strips, zinc, and aluminum alloy-coated steel sheets, to comply with Indonesian national standards. In March 2009, the Indonesian Government specified product certification organizations and testing laboratories. In the same month, while waiving the application of the regulations on certain products, the Government announced that batteries and shoes would now be subject to compulsory standards. These measures have been successively introduced since May 2009.

From February 2009, Ecuador introduced compulsory standards for automobiles and automotive parts, including brake pads, plastic pipes, tyres, and glass, among other products.

There have also been cases of certain import prohibition measures being introduced using standards certification as justification. In January 2009, India announced that it would prohibit imports of Chinese-made toys (HS numbers 9501, 9502, and 9503) for a period of six months. This measure met with resistance from China, and the Indian Government softened its stance in March 2009, indicating that it would accept imports of Chinese-made toys if they fulfilled certain conditions, including meeting standards set by ASTM (American Society for Testing and Materials) International and the International Standards Organization (ISO).

In Thailand, the procedures for acquiring or renewing product certification from the Thai Industrial Standards Institute (TISI) formally became stricter as of May 2009. In practice, procedures for obtaining approval from the TISI became stricter from the latter half of 2008, and there were instances where a longer time was required to obtain certification than had previously been the case. In the Republic of Korea, lithium secondary batteries became the target of compulsory standards from 1 July, 2009.

China's plan to introduce a system of compulsory certification for information-technology security products is presently a subject of concern. The Chinese Government announced in January 2008 that 13 products, including certain software products and IC cards and systems would become subject to China compulsory certification (CCC), administered by the Certification and Accreditation Administration.⁶ Foreign-owned companies and others have voiced concerns that the introduction of the new measure will lead to violations of intellectual property rights due to the disclosure of technological information, and that new procedures will increase operating costs. Faced with these concerns, the Chinese Government announced in April 2009 that it would limit the disclosure requirements to government procurement cases, and postpone the implementation of the measure until May 2010.⁷

The WTO Agreement on Technical Barriers to Trade (TBT) establishes the rules concerning the use of measures related to the application of compulsory standards and certification. The TBT Agreement prohibits the introduction of measures with the purpose of creating unnecessary obstacles to international trade. Product standards and certification measures are supposedly for ensuring the safety of citizens, but there are numerous cases where standards and certification measures have de facto restricted imports. Moreover, while the SPS agreement requires a necessity test (or scientific proof) of a SPS measure, the TBT Agreement simply refers to a legitimacy requirement, which is not specifically defined in the text. It is thus important to enhance surveillance of the utilization of these measures.

⁶ Certification and Accreditation Administration of the People's Republic of China, Notice No. 7, dated January 28, 2008.

⁷ *Ibid.*, Notice No. 33, dated April 27, 2009.

(1.3) Non-automatic import licensing

Since the financial crisis, countries such as Argentina, India and Indonesia have introduced import licensing systems for specific products. From November 2008, India introduced an import licence requirement for iron and steel products, including hot-rolled steel and unalloyed flat-rolled steel sheets, and automotive parts including gearboxes and bumper bars. Indonesia has made a total of 505 products subject to an importer registration requirement and pre-shipment testing for two years from January 2009; these include foodstuffs, beverages, children's toys, and electrical and electronic products. In addition, these products can only receive customs clearance at international airports and five sea ports. Furthermore, a system of importer registration for iron and steel products has been in place since April 2009. In Argentina, non-automatic import licensing for products, including iron and steel products, metallurgical products, spun products, elevators and tyres, has been in effect since November 2008.

Import licensing systems are used for a wide variety of purposes, including import control, sanitary and quarantine issues, and safety protection.⁸ If an import licensing requirement is used for quantitative restrictions of imports, it may be considered a violation of article XI on "General elimination of quantitative restrictions" of the GATT. Exceptions are found in a number of cases where import restrictions are applied in order to, inter alia, relieve critical shortages of foodstuffs (article 11, item 2(a)) and to safeguard the balance of payments (article 18, section B). For example, Japan prohibits the importation of guns, chemical weapons, etc., under the Customs Act, and requires registration of importers of mercury, nicotine, ammonia, and other toxic substances under the Poisonous and Deleterious Substances Control Law.

Under the WTO Import Licensing Agreement, an import licensing system must guarantee transparency and impartiality, and must not be operated in such a way as to restrict trade. In addition, in the case of a non-automatic import licensing system, applications must be processed within 30 days if treated on a first-come, first-served basis, or within 60 days if considered simultaneously.⁹

(1.4) The "buy local" tendency in government procurement

The United States Recovery and Reinvestment Act was enacted on February 17, 2009. As it came in the midst of the worst recession since the 1930s, the domestic economy as well as foreign firms fervently hoped that it would help the recovery and boost consumption. However, the Act includes a "buy

⁸ Under WTO rules, import licences are divided into automatic and non-automatic ones. Automatic licences are granted for all products upon approval. Non-automatic import licences may be partly aimed at import restriction.

⁹ With regard to this point, there is a possibility that the non-automatic import licensing system for elevator products introduced by Argentina in November 2008 may violate the WTO rules. The "2009 Report on Compliance by Major Trading Partners with Trade Agreements - WTO, FTA/EPA, BIT-," published by the Japanese Ministry of Economy, Trade and Industry, reports on a case in which no import licence was granted for elevator products exported from Japan, despite the fact that 30 days had elapsed from the date of application, and the products were unable to be unloaded at the port of import. Japanese companies with bases in Indonesia have also indicated concerns regarding problems with the registration system introduced on 1 April, 2009 for importers of 202 iron and steel products, including hot- and cold-rolled steel coils and sheets, plated steel sheets, and welded pipes. This measure requires importers and manufacturers of the specified iron and steel products to register, to inspect the products prior to shipment at the port of loading, and to report on the status of importation of the products every three months. Points on which Japanese companies have expressed their dissatisfaction in relation to this measure include the facts that (i) the Japanese inspection companies which can be employed and the procedures involved in the inspections prior to shipment have not been made clear (as of May 2009, because no decision had been reached regarding the companies to be used for the pre-shipment inspection, importers which had already completed the registration procedures were exempted from the requirement for inspection), and (ii) it is unclear which products are exempted from the measure based on bilateral agreements (in Japan's case, the Japan-Indonesia FTA).

American” clause, which stipulates that United States-made iron and steel products and manufactured goods should be used in public construction and repair projects. This was in response to a strong lobbying campaign by the domestic iron and steel industry.

Major trading partners of the United States, including Canada, the EU and Japan, have all expressed strong concerns since this clause was included in the bill. In response, President Obama indicated that the United States had no desire to ignite trade conflict in introducing the “buy American” clause, and added a provision to the clause, which stated that: “This section shall be applied in a manner consistent with United States obligations under international agreements”. The term “international agreements” refers to the WTO Government Procurement Agreement, FTAs concluded by the United States, and the Caribbean Basin Trade Initiative, among others.

The WTO Government Procurement Agreement is a “plurilateral” agreement, participation in which is voluntary. As of January 2010, 14 WTO members (which include the EU27, Japan and the United States) are parties to the Agreement. There are 16 countries whose FTAs with the United States include a provision for access to the government procurement market.¹⁰ The provisions of the Federal Buy American Act of 1933 made the use of domestic products mandatory in government procurement. The “buy American” clause in the Recovery and Reinvestment Act of 2009 and the government procurement chapters in these FTAs would guarantee national treatment to products that are imported from signatory countries. However, in both the WTO Government Procurement Agreement and these FTAs, the stipulations only apply to procurements of a value equivalent to or exceeding certain thresholds. For example, in the case of the WTO Government Procurement Agreement, the United States Federal Government specifies figures of (i) US\$ 194,000 or more for goods and services, and (ii) US\$ 7.443 million and above for construction services, to be subject to the stipulations of the agreement (as of August 2009).

Nations which will be affected by the “buy American” clause of the Recovery and Reinvestment Act of 2009 are principally those which do not participate in the WTO Government Procurement Agreement, or have not concluded FTAs with the United States, including Brazil, Russia, India and China (the BRICs). The BRICs have raised objections to the “buy American” clause in succession, and the Foreign Minister of Brazil, Celso Amorim, has not ruled out the possibility of bringing the case to the WTO.

As these countries have traditionally been discriminated against in United States government procurement based on the Buy American Act of 1933 and some state government procurement laws, the discrimination based on the 2009 Act is not an entirely new phenomenon. Nevertheless, there are concerns that the “buy American” clause has sent a clear protectionist message to the world. Against this background, the introduction of such measures by the United States - the country which has driven trade liberalization over the past half-century - may prompt other countries to follow suit.

Other countries around the world have begun to implement measures that are similar to the “buy American” clause. In May 2009, the Indonesian Minister of Public Works issued regulations stipulating preferential treatment for locally made goods and local companies in government procurement at all levels. According to the regulations, the relevant company will receive a price advantage in a bid if a predetermined local procurement rate for goods and services is met.

The Government of the Australian State of Victoria announced measures in March 2009 under which a level of 40 per cent local content would be sought, with local businesses receiving a 10 per cent price advantage when bidding for public works projects or “strategic projects” valued at AU\$ 250 million or more. Movements to prioritize domestic and local goods for procurement can also be observed in other areas, including the States of New South Wales in Australia and Ontario in Canada.

¹⁰ The U.S.-Jordan FTA does not contain a provision for increasing access to government procurement.

The scale of the global government procurement market cannot be ignored. On average, the value of government procurement may represent approximately 9 per cent or more of a country's GDP. In addition, major economies including the EU, Japan and the United States are increasing government expenditure as part of an economic stimulus package to counter the recession. Against this background, if more nations implement preferential measures, like the "buy American" clause, for domestic products, it will result in a significant loss of business opportunities for foreign companies.

(1.5) Application of anti-dumping measures, countervailing duties and safeguards against Chinese-made products likely to increase

The protection of domestic industries through the implementation of trade remedies such as anti-dumping (AD) measures is increasing. According to the WTO, there were 120 AD investigations in the latter half of 2008, which was an increase of 35 over the first half of the same year.

In recent years, Chinese-made products have been the major target of AD measures implemented around the world. According to the WTO, over 400 AD investigations into Chinese products were set in train from 2002 to 2008, representing 27 per cent of the total number of AD investigations worldwide. Similarly, there were 297 AD measures applied against Chinese goods, again accounting for 27 per cent of the total. India has been active in bringing in measures against Chinese-made goods since the financial crisis. From July to December 2008, India initiated 21 AD investigations into Chinese products, which was an increase of 12 investigations over the first half of 2008.

The AD and countervailing duties (CVD) measures are used for offsetting or preventing material injury to domestic industry by applying special duties over ordinary import tariffs on "unfairly-priced" imports. AD measures can be implemented against products exported at dumping prices, while CVD measures target products that have been rendered competitive by means of subsidies provided by the government of the exporting country. Safeguard (SG) measures are another form of trade remedy measures, but unlike AD and CVD, they are not implemented to protect domestic industries from unfair imports from a trading partner, but are put into effect when a rapid increase in imports causes serious injury to domestic industries, or when a threat to cause serious injury exists. AD, CVD, and SG are all legitimate measures under WTO rules. However, if such measures are applied excessively, they become an impediment to trade. In addition, there is ambiguity in the WTO rules in this area and, as in the case of the use of "zeroing" by the United States, certain AD measures that are in contravention of the WTO rules are still being applied.

In November 2006, the United States started a CVD investigation into Chinese-made coated paper. Following this, the United States conducted 13 CVD investigations into Chinese products up to August 2008, and has applied CVD measures against a variety of products including welded steel pipes, square steel pipes, laminated bags, and sodium nitrite. China has been providing export subsidies to its electrical and other goods as part of its policy for promoting Chinese brands. The United States and China are presently contesting this issue before the WTO Dispute Settlement Body, and it is possible that the United States will target its future CVD measures on these products.

AD and CVD are not the only causes of concern for China. When China's accession to the WTO was agreed, the existing WTO members won the right to apply safeguard measures against Chinese products under the China-Specific Textile and Apparel Safeguard and the Transitional Product-Specific Safeguard. These two measures apply exclusively to Chinese products. The Textile and Apparel Safeguard became ineffective as of the end of 2008, but the Product-Specific Safeguard, which can be applied to any Chinese-made product, remains effective until the end of 2013. While no country had invoked the measure up to the end of 2008, in February 2009, India invoked the measure against Chinese-made

aluminum wheels, soda acid, nylon tyre cords, tyres, and other products. In the United States, the United Steelworkers of America petitioned the United States International Trade Commission (ITC) in April 2009 for application of the safeguard (section 421) against Chinese tyre imports.

(1.6) Consumption subsidies

As part of their economic stimulus measures, a number of countries have introduced subsidies to encourage consumers to buy specific products through, for example, refunding a certain amount of the purchase price. Subsidies to consumers can be an effective measure for stimulating demand, which in turn promotes trade. However, if subsidies are paid only when a domestically produced product is purchased, this may violate the principle of national treatment under the GATT/WTO.

Malaysia is one of the countries that are considering introduction of a discriminatory subsidy to consumers. In a speech given in March 2009 concerning the nation's second economic stimulus package, Finance Minister and then Deputy Prime Minister Najib Razak announced that Malaysia would introduce a scheme under which the Government would provide a subsidy of 5,000 ringgits (approximately US\$ 1,500) to a consumer who replaces a vehicle that is 10 or more years old with a car manufactured by domestic auto makers Proton or Perodua.

(1.7) Bailing out of struggling companies by European Union countries and the United States

Following the financial crisis, a number of developed countries announced the introduction of measures to bail out their struggling industries (see Table I-2 below). Chrysler and General Motors (GM), previously the leaders of the global automotive industry, invoked Chapter 11 of the Federal Bankruptcy Law in April and June 2009, respectively. Prior to the bankruptcies, the United States Government provided GM with US\$ 13.4 billion dollars and Chrysler with US\$ 4 billion dollars in emergency loans.

When the United States announced the introduction of measures in support of GM and Chrysler in December 2008, it was internationally denounced as a protectionist measure. However, an increasing number of countries, including Australia, Canada, and the EU members, among others, are now offering loans and financial support to their domestic industries.

In the EU, French President Nicolas Sarkozy announced the provision of EUR 6 billion in loans to Peugeot-Citroen and Renault in February 2009. The loans were offered on condition that the companies maintain operation of their plants in France, which drew a strong response from other EU member nations, in particular the Czech Republic, where a Peugeot plant is located. Following this, France indicated that it would remove conditions that would discriminate against other EU members. EU members such as Germany, Italy, Spain, Sweden and the United Kingdom have also announced economic packages in support of their automotive industries.

The WTO Agreement on Subsidies and Countervailing Measures (SCM Agreement) and article 16 of GATT ("subsidies") regulate the use of subsidies to companies and industries. Under the SCM Agreement, a subsidy that is "specific to an enterprise or industry or group of enterprises or industries" (article 1.2) can be subject to countervailing measures invoked by importing countries which have

experienced a negative impact on their domestic industries. Given that the American and European loan measures discussed above involve the provision of government funds to specific companies (GM, Renault, etc.), they can be considered as subsidies with a high degree of specificity.

Subsidies provided on the basis of export performance and subsidies contingent upon the preferential use of domestic products over imported products are prohibited under the terms of the SCM Agreement. If either of these types of subsidies is put into effect, WTO member countries have the right to go before the WTO Dispute Settlement Body and demand an immediate withdrawal of such subsidies.

In the past, the EU and the United States have adopted a tough position vis-à-vis government assistance to ailing companies. A leading example are the CVD measures launched by the EU, Japan and the United States against dynamic random access memory (DRAM) chips manufactured by Hynix, a company which received support from the Government of the Republic of Korea after it almost collapsed as a result of the 1998 Asian financial crisis. In addition, the United States has proposed in the Doha Round negotiations that a further group of subsidy types should be prohibited, in addition to the above-mentioned subsidies based on export performance and subsidies contingent upon preferential use of domestic products, including the transfer of funds to compensate for operating losses. The measures targeted here are similar to the measure implemented by the Republic of Korea in the case of DRAM chips.

Despite this stance, the EU and the United States have now provided financial assistance to their domestic industries. These moves could significantly influence a wide range of discussions under the Doha Round, including negotiations concerning the appropriate form and rules for subsidy systems and considerations of CVD measures.

Table I-2. Post-financial crisis industrial assistance by country

Measure	Major relevant WTO agreements	Country/Region	Description	Period of Introduction	Basis
Financial Assistance to industry	Agreement on Subsidies and Countervailing Measures	US	<ul style="list-style-type: none"> Announced on December 19, 2008 that GM and Chrysler would receive up to \$17.4 billion (\$13.4 billion for GM and \$4 billion for Chrysler) in financial support as part of the Emergency Economic Stabilization Act enacted on October 3, 2008. Of that, GM and Chrysler received \$4 billion each on December 31 and January 2, 2009 respectively. In April 2009, an extra \$2 billion was provided to GM. In March 2009, the Treasury Department announced that it would provide up to \$5 billion to auto-parts suppliers as part of the Emergency Economic Stabilization Act passed in October 2008. The government would provide guarantee to banks that purchased suppliers' accounts receivables. 	Enacted October 3, 2008. Announcement of assistance to automobile manufacturers: December 19, 2008. Announced March 19, 2009.	H.R.1424 Emergency Economic Stabilization Act of 2008 Department of Treasury Press Release TG-64, March 19, 2008.
		Canada	<ul style="list-style-type: none"> On December 20, the prime minister of Canada announced that emergency support of up to \$4 billion (Canadian) would be provided to Chrysler. The federal government and the provincial government of Ontario would extend loans of C\$3 billion to GM Canada, and C\$1 billion to Chrysler Canada. The Canadian government announced on April 7, 2009 that it would increase the capitalization of the Export Development Canada (EDC) by C\$700 million to finance an Accounts Receivable Insurance Program for automobile parts suppliers. 	Announced Dec 20, 2008 Announced April 7, 2009	Government of Canada press release, December 20, 2008. Government of Canada press release, April 9, 2009.
		Europe	<ul style="list-style-type: none"> President Sarkozy of France announced the extension of a 6 billion euro loan to aid Peugeot-Citroen and Renault in February 2009, on the condition that the manufacturers keep their factories within the country. After a protest from the Czech Republic, France promised that the substance would be changed in order to avoid any discriminatory effects on other member states. The UK, Spain, Italy, Germany and Sweden have also announced aid packages to companies, mainly in the automobile sector. 	Applied from December 17, 2008.	European Commission Communication "Temporary Community Framework for State Aid Measures to Support Access to Finance in the Current Financial and Economic Crisis" (Official Journal of the EU C16, January 22, 2009).
		Europe	<ul style="list-style-type: none"> On March 12, 2009, the European Investment Bank announced that its Board of Directors had approved the extension of 3 billion euros in financing to the European automobile manufacturing sector. The majority of the money was earmarked to fund the economic package that had been approved at the EU Summit in March, 2008, which included programs for the development of clean technologies to help drive up energy efficiency and reduce carbon dioxide emissions. Announced its further loans of 866 million euros on April 7 and 750 million euros on May 12, for an anticipated total of more than 7 billion euros in loans to the automobile industry, including parts suppliers, in 2009." 	Approved by Board of Directors on March 12, 2009.	European Investment Bank press release, March 12, 2009. European Investment Bank press release, April 7, 2009. European Investment Bank press release, May 12, 2009.

Source: Prepared based on material from various governments.

(1.8) The role of the WTO as a bulwark against protectionism

Following the financial crisis, there was apprehension that trade-restrictive measures designed to protect domestic industries would gain ground. It was agreed at the G-20 Leaders Summit and the Asia-Pacific Economic Cooperation (APEC) Economic Leaders' Meeting held in November 2008 that restraint should be exercised in the area of protectionist measures. The declaration of the G-20 Leaders Summit on Finance and the World Economy held in Washington on November 14-15, 2008, stated that "...within the next 12 months, we will refrain from raising new barriers to investment or to trade in goods and services, imposing new export restrictions, or implementing World Trade Organization (WTO) inconsistent measures to stimulate exports." Similar statements were made in the declaration of the APEC Economic Leaders' Meeting held in Lima in November 2008. The G-20 Summit held in London in April 2009 reaffirmed the sentiments of the November 2008 declaration, and added that the pledge with regard to protectionist measures would be extended to the end of 2010. This pledge was reiterated in the G-20 summit outcome in Pittsburgh (September 2009).

Despite this commitment, trade-restrictive measures are being put into place around the world, as noted above. However, one notable point with respect to these new trade-restrictive measures is that most of those introduced after the financial crisis appear to conform to WTO rules. Thus, the WTO, with its sophisticated dispute settlement system, is so far functioning as a bulwark against protectionism. The protectionist measures applied in the 1930s, of which the United States Smoot-Hawley Tariff Act is representative, resulted in a rapid contraction in world trade, and increased the severity of the recession in the world economy.

Nonetheless, the current WTO agreements are the products of the Uruguay Round (1986-1994), while the global economic situation has changed greatly in the past fifteen years. Given this, a successful conclusion of the Doha Round becomes even more important in the light of rising protectionism.

2. Areas for new rule-making

In recent decades, corporate activities have become increasingly globalized, and their needs have been diversifying. This has led to an expansion of the areas that are subject to liberalization and regulation under the WTO.

Soon after the establishment of the WTO, there were calls for liberalization and rule-setting in several new areas that included investment, government procurement, and competition (the so-called "Singapore issues"). However, in the face of strong opposition from certain WTO members, including developing countries, the Singapore issues were eventually taken off the Doha negotiating agenda.

Nonetheless, the fact that 15 years have passed since the conclusion of the Uruguay Round cannot be ignored. A rapid conclusion to the Doha Round is also essential from the perspective of matching trade rules to the realities of fast-changing economic activity, while the necessity of rulemaking in bilateral and regional frameworks as an adjunct to the multilateral rule-setting associated with the WTO has also increased.

(2.1) Ongoing liberalization and regulation of investment and services by means of free trade agreements and investment agreements

The General Agreement on Trade in Services (GATS) and the Agreement on Trade-Related Investment Measures (TRIMs) set out certain rules on investment and services. While GATS provides for national treatment, MFN treatment, and market access in the area of services, there are numerous exceptions, and it does not cover manufacturing. TRIMs is also limited to certain prohibitions on performance requirements, such as local content requirements and import-export equilibrium requirements. The scope of WTO rules in the areas of investment and services is therefore limited.

Against this background, liberalization and rule-setting in the fields of investment and services are taking place in the framework of FTAs or bilateral agreements. Countries with a high degree of concern in the area of investment (countries with a large amount of investment, those whose investments are concentrated in resource-based sectors, etc.) are concluding bilateral investment agreements or are including chapters dealing with investment and services in their FTAs.

Furthermore, bilateral investment agreements may incorporate clauses for investment protection or investment liberalization, or both. In addition to national treatment and MFN treatment following the approval of the investment, investment protection normally provides for compensation for expropriation, fair and equitable treatment, and the resolution of conflicts between the nation and the investor in the event of nationalization. Investment liberalization incorporates national treatment, MFN treatment, and the prohibition of performance requirements prior to the approval of the investment, among other elements. National treatment, MFN treatment are covered in both GATS and TRIMs, and the prohibition of certain performance requirements is covered in TRIMs, but investment agreements extend these elements to the manufacturing sector, and make them binding at a bilateral level. The WTO does not provide for the resolution of conflicts between the investor and the host country. Investment agreements thus incorporate wide-ranging “WTO-plus” content.

Comprehensive negotiations are necessary to conclude agreements like FTAs, which cover a broad range of fields, but the negotiations for investment agreements, which cover only services and investments, can be concluded more quickly. According to UNCTAD, 2,676 bilateral investment agreements had been concluded worldwide as of the end of 2008.¹¹

(2.2) Rules concerning government procurement

The WTO Agreement on Government Procurement (GPA), which went into effect in 1996, provides for the liberalization and regulation of government procurement in trade among its parties. Signatory countries must provide foreign companies with national treatment, fair and transparent transactions, and complaint notification procedures, and must eliminate local content requirements. However, the GPA has its limits compared to other WTO agreements. Only 14 WTO members are signatories to the agreement¹² and they are free to apply their own terms concerning issues and public entities outside the scope of the GPA.

¹¹ For instance, in 2008, investment agreements were signed or went into effect between Japan and Laos (effective August 2008), Uzbekistan (signed August 2008), and Peru (signed November 2008).

¹² The signatories to the WTO Agreement on Government Procurement are Canada, the EU 27, Hong Kong China, Iceland, Israel, Japan, Republic of Korea, Liechtenstein, the Netherlands with respect to Aruba, Norway, Singapore, Switzerland, Taiwan Province of China and the United States. China is among other nations presently involved in negotiations to become a signatory to the agreement. China presented an initial offer in December 2007, but the United States was critical because government services were not included in the scope of liberalization, the majority of state-owned companies were excluded, a transitional period of 15 years was set, and regional governments were not included.

Government procurement was treated as an exception to the principle of national treatment for an extended period under GATT. Even now, there appears to be considerable resistance to the liberalization of government procurement. In general, national rules concerning government procurement display a low level of transparency, and often give preferential treatment to bids involving domestic products for security reasons, or from considerations of protection and fostering of domestic industry.

The United States is no exception to this general trend; it still applies the provisions of the Buy American Act of 1933, which stipulates the use of United States-made goods and materials, and adds an extra 6 to 12 per cent to the cost of overseas products when bids are evaluated. In addition, certain laws concerning issues, such as homeland security and defence among others, contain provisions for the preferential treatment of nationally as well as locally produced goods.¹³

The United States government procurement market is enormous. It represents approximately 11 per cent of GDP (over US\$ 1.4 trillion in 2008), and is almost equivalent to the GDP of Brazil. In addition, the American Recovery and Reinvestment Act, enacted in February 2009, adds up to approximately US\$ 7.07 billion in environment-related projects, which provides a significant opportunity for non-United States companies against the background of the current prolonged recession.

As mentioned above, however, this enormous market is protected by various laws and regulations. Some countries have secured access to the United States government procurement market through the WTO GPA or FTAs, but the basic stance of the United States remains “buy American.” For example, a report to the Senate by the Department of Defense states that foreign goods and services represented only 6 per cent (approximately US\$ 23.7 billion) of its total procurement expenditure for FY2008 (approximately US\$ 396 billion). The ratio of foreign-sourced goods and services procured by the Department of Commerce was similarly low in FY2008, representing only 7.2 per cent (approximately US\$ 1.2 million) of a total expenditure of approximately US\$ 16 million.

Some countries seek to complement the WTO GPA by requesting that partner countries open up their government procurement market through FTAs. For example, when the United States negotiates an FTA with a nation which is not a signatory to the GPA, it requests an almost identical level of liberalization and regulation of the government procurement market as specified in the GPA. If the partner country is a signatory to the GPA, the United States requests a higher level of liberalization than provided for in the agreement.

Countries which are not signatories to the GPA are thus discriminated against in the United States market, since the establishment of an FTA with the United States represents an opportunity to gain access to its enormous government procurement market. For example, as Australia is not a signatory to the GPA, Australian firms had been suffering competitive disadvantage in the United States market. However, when the United States-Australia FTA came into effect in January 2005, Australian companies started to receive the equivalent of national treatment when making a bid of a specific value or higher in the United States government procurement market. The waiving of the application of the Buy American Act to Australian companies by the United States Federal Government and some state governments has increased opportunities for those companies to participate in the government procurement market. According to the report to the Senate by the Department of Defense, the Department’s procurements within the framework of the United States-Australia FTA totalled approximately US\$ 16 million in FY 2005, US\$ 52 million in FY 2006 and US\$ 4 million in FY 2007.

¹³ These include laws concerning the budgets of federal government organizations (e.g. the Department of Defense Appropriations Act, 2007, the Homeland Security Appropriations Act, the American Recovery and Reinvestment Act of 2009, etc.) and laws concerning the purchase of heavy transport equipment (e.g. the Safe, Accountable, Flexible, and Efficient Transportation Equity Act and the Rail Passenger Service Act); and other laws at the regional level.

Thus, FTAs expand opportunities for companies to participate in the government procurement market of partner countries through supplementing the limited scope of the WTO GPA and eliminating discrimination against countries that are not signatories to the GPA.

(2.3) Progress in discussions on the protection of intellectual property rights

The TRIPS agreement has established an international standard for the protection of intellectual property rights

Intellectual property rights (IPRs), such as patents and copyrights, have become a vital aspect of trade and foreign direct investment. Adequate protection of IPRs enhances the urge to create and thus drives invention and technological development. Insufficient protection of IPRs, by contrast, could lead to a proliferation of cheap counterfeit goods and services. To what degree IPRs are to be protected is an important factor in determining the course of business evolution.

International frameworks for IPRs have existed since the nineteenth century, mainly in European countries, with the intention of harmonizing the intellectual property laws of different nations. The Paris Convention for the Protection of Industrial Property and the Berne Convention for the Protection of Literary and Artistic Works are representative examples.

As a trade-related matter, issues concerning intellectual property were taken up as a part of the negotiating agenda in the Uruguay Round. The outcome was the Agreement on Trade-related Aspects of Intellectual Property Rights (TRIPS), which specifies comprehensive regulations concerning IPRs. The agreement went into effect in 1995 and became enforceable following a one-year transition period for developed countries, and a five-year transition period for developing countries.

TRIPS establishes a minimum standard for the protection of IPRs that applies to all WTO members, and sets up an effective procedure for dispute settlements. The TRIPS agreement obliges members to observe existing international laws, such as the Paris and Berne Conventions, and to establish further protections and procedures for the exercise of rights at a higher level than specified in existing laws. In addition, “single undertaking” enables the use of unified WTO dispute resolution procedures, making TRIPS a groundbreaking document in comparison to other agreements related to intellectual property.

To date, there have been 28 TRIPS-related cases brought before the WTO Dispute Settlement Body. The majority of these cases occurred prior to the year 2000, and was complaints by developed countries against developing countries, focusing on national and MFN treatment, and those between developed countries, for which the performance obligation applied soon after TRIPS came into effect.

Using free trade agreements to achieve “TRIPS-plus”

FTAs are also used as a method of supplementing the WTO in the area of intellectual property. Developing countries were originally unenthusiastic about discussing intellectual property rights at the WTO, and many of them have viewed the TRIPS agreement as imposing an extra burden on them. Developed countries, on the other hand, find the increasing flood of infringed and pirated products extremely problematic.

Given the growing difficulty in coordinating the interests of WTO members within the multilateral negotiations at the WTO, there has been a trend towards FTAs to secure intellectual property protection. As such, almost all FTAs concluded by developed countries, such as the EU, Japan and the United States, include clauses related to the protection of IPRs.

The United States has been particularly active in including a broad range of “TRIPS-plus” conditions in its FTAs (see Table I-3 below). The most conspicuous feature of the IPR-related clauses in FTAs involving the United States is enhanced protection of copyright and test data on medical devices. In the case of copyright, the United States has stipulated an extension of the period for copyright protection; prohibitions on the avoidance of technical methods of protection; and the signing of copyright-related agreements, among other measures.¹⁴ In the case of test data, measures include the specification of the protection period for unpublished test data, and demands for the patentability of animals and plants (excluding micro-organisms), which are not subject to patents under the terms of TRIPS. Applying a strict interpretation of clauses which involve some degree of flexibility in TRIPS is also considered as TRIPS-plus.¹⁵ Behind these measures lies pressure from the film, music, and pharmaceutical industries, for which the protection of intellectual property is a serious concern.

Table I-3. TRIPS-plus clauses in United States FTAs

TRIPS-Plus Type	Specific Example	Examples of Relevant FTA
Requirement to join IP related treaties	Requires membership in WIPO Copyright Treaty and WIPO Performances and Phonograms Treaty	All FTAs
	Requires membership in International Union for the Protection of New Varieties of Plants (UPOV)	Singapore, Australia, CAFTA-DR, South Korea
Level of protection surpassing TRIPS	Extends the copyright protection period (from 50 years after author's death to 70 years)	All except for Jordan
	Protects trademarks on sounds and scents	Singapore, Chile, Australia, CAFTA-DR, South Korea
	Enhances protection for well-known marks	Singapore, Chile, Morocco, South Korea
	Strengthens protection of test data on pharmaceuticals	Singapore, Chile, Australia, CAFTA-DR, South Korea
	Extends patent protection period to compensate for delay in granting patent	Singapore, Chile, Australia, CAFTA-DR, South Korea
Rules and regulations on areas not addressed by TRIPS	Strengthens protection against technological development, such as prohibiting the circumvention of technological protection measures	Free Trade Area of the Americas (FTAA), NAFTA, Singapore, Chile
	Limits ISP (Internet service provider) responsibility	Singapore, Chile, Australia, South Korea
	Contains stipulation on patent exhaustion issue, not yet being subject to discussion in the WTO	FTAA, Singapore, Australia, Morocco
Limits range of discretion allowed by TRIPS	Limits scope of compulsory licensing	Singapore, Australia
	Denies exceptions to patentability allowed in TRIPS Article 27 (3)	NAFTA, Jordan, Singapore, Chile
	Moves up deadline for interim measures in TRIPS Agreement for obligations pertaining to FTAs concluded with the US and for some treaties in which membership is required by an FTA with the US	Singapore

Note: “Examples of Relevant FTAs” includes those not yet in effect. FTAA is the third iteration.

Sources: Prepared based on the Office of the US Trade Representative, the International Association for the Protection of Intellectual Property (AIPPI) of Japan and others.

¹⁴ Technological methods for the prevention of copyright violation, such as copy control to prevent digital copying and access control that restrict viewing, etc., through the use of encryption.

¹⁵ For example, article 31 of TRIPS provides for compulsory licensing of pharmaceutical patents (under specific conditions, rights for the use of the subject matter of a patent can be granted to third parties without the authorization of the holder of the right), but the scope for authorization of compulsory licensing is narrower in the United States-Singapore FTA than in TRIPS.

The high level of protection of intellectual property rights in United States FTAs has also been criticized as a potential impediment to future international harmonization of IPR rules. At times, the FTAs involving the United States include IPR protection clauses, such as the principle of exhaustion of rights, the details of which are not yet decided at the multilateral level, and which were set aside in the discussions leading to the formulation of TRIPS.¹⁶

Enhancing the protection of IPRs through FTAs may influence the future strategies of major countries on IPRs. Unlike tariffs and services, for which discriminatory treatment is allowed under certain conditions, the intellectual property agreements specified in FTAs should in principle apply with the same conditions to other WTO members, within the scope of article 4 of TRIPS (concerning MFN treatment). This means that when a country specifies rights and privileges relating to intellectual property rights in an FTA, other WTO members will also receive those rights and privileges. On the other hand, it is also possible that those countries which have concluded FTAs with the United States will demand similar high-level protection of IPRs in the future. Hence it will be essential to monitor trends in TRIPS-plus conditions in the United States.

Excluding the Japan-Mexico FTA, all of Japan's FTAs include a chapter dealing with intellectual property. However, in almost all cases, they do not incorporate new rules not specified by TRIPS, nor demand large-scale changes to existing systems. However, Japan's FTA with Switzerland, signed in February 2009, incorporates a high-level regulation pertaining to the intellectual property field, including limitation of the responsibility of internet service providers. The agreement is therefore a pioneering document in relation to the Anti-Counterfeiting Trade Agreement (ACTA -discussed below), and is expected to serve as a model for the intellectual property chapters of future FTAs.

Progress in plurilateral rulemaking

As discussed above, an increasing number of countries are seeking to guarantee the protection of IPRs through FTAs, using TRIPS as its foundation. Against this background, some are of the opinion that TRIPS, which specifies only the most basic standards, is ineffective in terms of the actual protection of IPRs.¹⁷ In addition, the current global economic environment has seen not merely the proliferation of counterfeit and pirated goods but also the supply routes of these goods becoming increasingly complex and organized. Given the threat to safety that they represent, some take the view that TRIPS and FTAs alone will not be sufficient to prevent the abuse of IPRs on a global scale

Given this, a group of countries has started negotiations on the Anti-Counterfeiting Trade Agreement (ACTA), which is expected by its members to become a more effective multilateral framework than TRIPS. With Japan taking the initiative, formal negotiations started in June 2008, and the process aims for a conclusion in 2010. At present, there are eleven members of the group participating in the negotiations, all with a high level of interest in the protection of IPRs.¹⁸ According to the summary of the ACTA negotiation elements published in April 2009, the agreement will not seek to replace TRIPS, but will seek to establish more concrete and robust regulations on IPRs. In particular, ACTA is expected

¹⁶ The doctrine of exhaustion of rights states that the holder of an intellectual property right, or an individual or entity which has been granted a licence, loses certain rights after the subject matter of the right or licence is first sold in a market. The international acceptance or non-acceptance of the doctrine of exhaustion of rights was a point of contention in the Uruguay Round, and TRIPS ultimately did not incorporate either position (article 6).

¹⁷ The United States had been concerned about the lax standards in China with regard to criminal prosecution in cases of piracy, etc. The WTO panel report published in January 2009 concerning piracy complaints brought by the United States against China, did not accept the United States assertion that conditions of prosecution in China were in contravention of the agreement.

¹⁸ The eleven members are Australia, Canada, the EU, Japan, Republic of Korea, Mexico, Morocco, New Zealand, Singapore, Switzerland and the United States. In June 2009, the Office of the United States Trade Representative established a special page on its website to publish information as it becomes available. The sixth round of ACTA negotiations was held in the Republic of Korea in November 2009.

to incorporate effective measures to promote international cooperation in areas such as the exchange of statistical data and best practices; help capacity-building in developing nations; and support the exercise of IPRs through border measures and civil and criminal enforcement measures, as well as measures to protect IPRs in the digital environment.

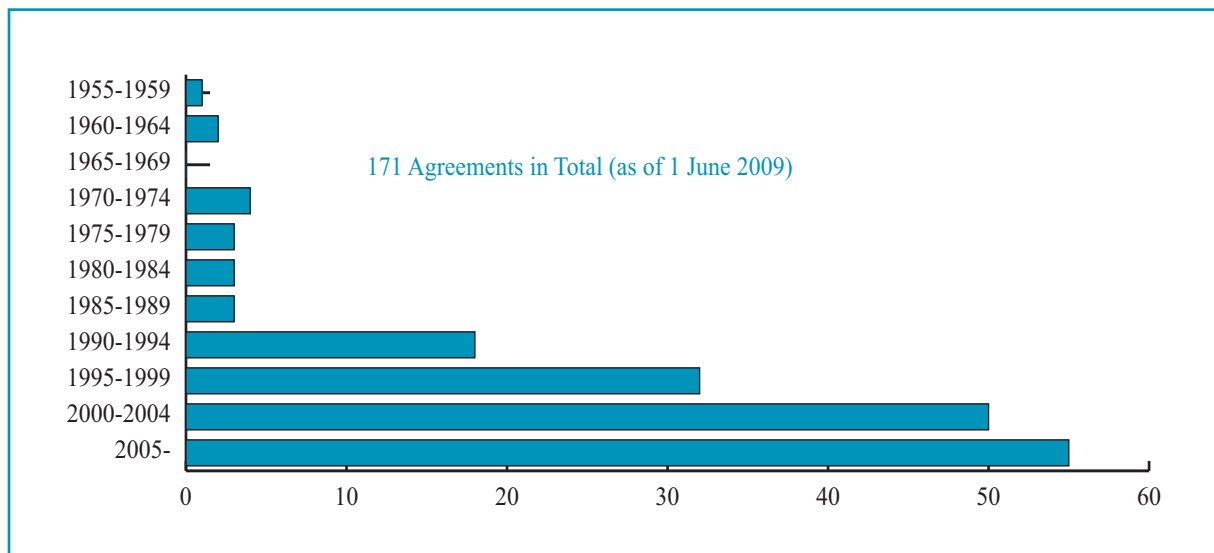
3. Arrival of the era of full utilization of free trade agreement

As described in the sections above, countries are increasingly seeing FTAs as an effective way at present to enhance trade liberalization and maintain a transparent and predictable trading environment, particularly against the background of the stalled WTO negotiations. In addition, FTAs also play a role in creating a basis for new trade rules in the areas that are not covered by the WTO and the Doha Round, such as investment and intellectual property. The formulation of FTAs in a manner consistent with the WTO frameworks is thus as important an agenda as the WTO rules themselves.

(3.1) FTAs now number 171 worldwide

As of August 2009, 171 FTAs were in effect.¹⁹ By contrast, there were only 16 FTAs in existence at the end of 1989, increasing by 50 in the decade between 1990 and 1999, and by a further 105 in the period between 2000 and June 2009 (see Figure I-1 below).

Figure I-1. Number of FTAs worldwide by year



Note: The year is based on the date of the agreement becoming effective. The South Korea–ASEAN and India–Thailand FTAs are added, before notification.

Source: Compiled from list on WTO website (http://www.wto.org/english/tratop_e/region_e/region_e.htm).

¹⁹ This figure, based on WTO reports, includes customs unions.

It is possible that the current economic climate may delay the conclusion of those FTAs which are currently under negotiation, as governments worldwide are primarily focused on domestic policies against the background of the global recession. Several FTAs were in fact concluded after October 2008, however, the negotiations for almost all these new FTAs had been concluded prior to October 2008, when the financial crisis struck.

(3.2) Trends in FTAs in the Asia-Pacific region

The ASEAN+1 FTA network is almost complete in the Asia-Pacific region

Since 2000, a large number of FTAs have been concluded in the Asia-Pacific region. Near completion of a network of FTAs between ASEAN and surrounding nations (i.e., “ASEAN+1” FTAs) is one significant aspect of this trend. ASEAN has established FTAs with China (effective from 2004), Republic of Korea (effective from 2007), Japan (effective from 2008), Australia and New Zealand (signed in 2009), and India (signed in 2009).

In the case of the ASEAN-Republic of Korea FTA, certain aspects of negotiations had previously not been concluded between Thailand and the Republic of Korea, and this part of the FTA was therefore not effective until February 2009 when the two countries signed the agreement.

ASEAN signed an FTA with Australia and New Zealand in February 2009. The parties initially intended to sign the agreement at the East Asia Summit in Thailand in December 2008, but it was delayed by two months due to political instability in Thailand. Thailand and Singapore already have bilateral FTAs with Australia and New Zealand. It is expected that, when the FTA between ASEAN as a whole and the two countries goes into effect, the benefits to the region from the FTA will be greater, with the introduction of a cumulative rule of origin.

In the case of the ASEAN-India FTA, a broad agreement was reached by the ASEAN economic ministers (AEM) and representatives of the Indian Government at the Sixth AEM-India Consultations in August 2008, and the agreement was eventually signed in August 2009. The FTA is expected to go into effect in 2010. Since India is a massive and growing consumer market, the coming into effect of the ASEAN-India FTA raises high expectations among ASEAN-based firms as to the future growth of exports from the ASEAN countries to India.

Utilization of FTAs in the Asia-Pacific region is increasing

Let us examine to what extent firms make use of these FTAs in ongoing trade in the Asia-Pacific region.

Table I-4 below shows the results of a survey of Japanese firms operating with an investment ratio of at least 10 per cent in 13 countries: the ASEAN-seven (Indonesia, Malaysia, Myanmar, the Philippines, Singapore, Thailand and Viet Nam), Australia, Bangladesh, India, New Zealand, Pakistan and Sri Lanka.²⁰ The firms were asked which of the FTAs in the Asia-Pacific region (excluding FTAs formulated by Japan in the Asian region) they actually made use of, e.g. taking advantage of preferential tariffs under an FTA.

²⁰ This information is based on the Survey of Japanese-affiliated Firms in Asia and Oceania, conducted by the Japan External Trade Organization (JETRO) in 2008.

The results of the survey showed that the FTA most frequently used by Japanese firms is the ASEAN Free Trade Area (AFTA). AFTA is eliminating tariffs in stages, and more than 80 per cent of products are now tariff-free in the ASEAN-six countries (Brunei, Indonesia, Malaysia, the Philippines, Singapore, and Thailand). The next most frequently used FTA is the ASEAN-China FTA. Firms also made good use of the Thailand-India FTA and of the Thailand-Australia FTA, reflecting the fact that a large number of Japanese firms are concentrated in Thailand, and that they actually use these FTAs when exporting to Australia and India.

Table I-4. Status of use of major effective FTAs in the Asia-Pacific and Southwest Asia regions by third countries

(Units: Number, %)

FTA	Number	% share
AFTA	86	56.2
ASEAN-China	18	11.8
Thailand-India	9	5.9
Thailand-Australia	9	5.9
ASEAN-Korea	7	4.6
Australia-New Zealand	5	3.3
Thailand-New Zealand	5	3.3
Australia-Singapore	4	2.6
South Asian Free Trade Area (SAFTA)	3	2.0
Singapore-India	2	1.3
India-Sri Lanka	2	1.3
Singapore-New Zealand	2	1.3
Malaysia-Pakistan	1	0.7
Total number of times FTAs have been used	153	100.0

Notes: 1) The survey was conducted between September 25 and October 31, 2008. The survey subjects were Japanese companies operating enterprises with a ratio of capital contribution of 10% or more in any of 13 nations (ASEAN7 [Thailand, Malaysia, Indonesia, the Philippines, Singapore, Viet Nam, Myanmar], India, Pakistan, Sri Lanka, Bangladesh, Australia, and New Zealand). The number of valid responses was 1,852, and the valid response rate was 36.8%.

2) The number of FTA utilization was determined by responses to a question as to whether the companies had used an FTA in conducting exports from one signatory nation to another signatory nation.

Source: Survey of Japanese-Affiliated Firms in Asia and Oceania (FY2008) (JETRO).

Thailand and Malaysia publish figures for the value of trade using FTAs which provide fundamental statistical data for an understanding of the status of utilization of FTAs in the Asia Pacific region (see Table I-5 below). Looking first at the core FTA in the Asia-Pacific region, the total value of exports from Malaysia and Thailand using AFTA was US\$ 15.6 billion, representing 29 per cent of the total value of their exports to the ASEAN countries excluding Singapore.²¹ The AFTA utilization rate is increasing annually, up by 23 percentage points from 5.6 per cent in 1998. In terms of destination countries, the FTA utilization on exports to Indonesia and Viet Nam is comparatively high (see Table I-6 below). The ASEAN-six reduced tariffs on most products to 5 per cent or less in 2003, and eliminated tariffs on more than 80 per cent of products in 2008. This suggests that the FTA utilization rate has increased as the agreed tariff rates have been reduced. These same six countries intend to remove tariffs on almost all trade items in 2010, and this may lead to a greater utilization of AFTA.

²¹ Singapore has only ever applied tariffs to certain types of alcohol. The total export value used in the denominator includes products which are tariff-free in the importing country on an MFN basis.

Table I-5. Utilization of FTAs in Thailand and Malaysia (exports)

(US\$ million, %)

	Trading Partner Country/ Region	Total value of exports utilizing FTA				Share to the total exports			
		2005	2006	2007	2008	2005	2006	2007	2008
Thailand	AFTA	5 146	5 509	7 865	10 735	21.5	20.2	22.6	26.8
	AFTA (excluding Singapore)	4 942	5 299	7 609	10 343	30.0	28.2	30.9	34.4
	ASEAN-China	614	1 450	1 769	1 691	6.7	12.3	11.1	10.4
	Thailand-India	267	328	399	418	17.6	18.1	14.0	12.3
	(82 items of the Early Harvest Scheme)	267	328	399	418	79.0	89.1	98.3	83.4
	Thailand-Australia	2 122	2 746	4 067	4 944	67.3	62.6	66.3	61.9
Malaysia	AFTA	2 921	3 071	3 924	4 815	7.9	7.3	8.7	9.3
	AFTA (excluding Singapore)	2 731	2 898	3 736	4 561	18.5	16.9	19.1	20.6
	ASEAN-China	274	1 043	1 629	1 889	2.9	8.9	10.5	9.9
Total	AFTA	8 066	8 580	11 789	15 550	13.3	12.4	14.7	17.0
	AFTA (excluding Singapore)	7 673	8 197	11 345	14 904	24.6	22.8	25.7	28.6
	ASEAN-China	888	2 493	3 398	3 579	4.8	10.6	10.8	10.1

Notes: 1) The share to the total exports is: the value of exports utilizing FTA divided by the total value of exports. Total value of exports includes items for which tariffs have been eliminated on a MFN basis by the trading partner.

2) Malaysia's trade figures with South Korea are based on June to December 2007 results.

Sources: Prepared based on Thailand Ministry of Commerce, Malaysia Ministry of International Trade and Industry, and trade statistics of various countries.

Table I-6. Utilization of AFTA in Thailand and Malaysia (exports)

(US\$ million, %)

	Trading Partner Country/Region	Total value of exports using AFTA					Share to the total exports				
		1998	2003	2006	2007	2008	1998	2003	2006	2007	2008
Total for Thailand and Malaysia	Indonesia	99	913	2 231	3 530	5 128	5.0	20.6	30.1	34.4	40.8
	Viet Nam	7	632	1 763	2 772	3 329	0.8	30.3	36.3	43.2	44.6
	Malaysia	212	801	1 363	1 850	2 465	11.9	20.7	20.5	22.1	24.9
	Philippines	179	748	1 529	1 928	2 411	9.3	24.9	32.0	34.1	37.4
	Thailand	91	594	1 270	1 206	1 414	3.9	13.0	14.9	13.8	14.8
	Singapore	17	247	382	445	646	0.1	1.1	1.2	1.2	1.6
	Myanmar	0	2	4	13	74	0.0	0.4	0.4	1.0	4.5
	Lao PDR	0	4	23	30	46	0.0	0.9	2.3	2.1	2.6
	Brunei	0	2	14	15	23	0.1	0.7	3.3	3.0	4.0
	Cambodia	0	0	1	1	14	0.0	0.0	0.1	0.1	0.6
	Total	606	3 942	8 580	11 789	15 550	2.2	9.3	12.4	14.7	17.0
	Total (excluding Singapore)	589	3 696	8 198	11 345	14 904	5.6	18.4	22.8	25.7	28.6
Thailand	Total	391	2 561	5 509	7 865	10 735	4.0	15.5	20.2	22.6	26.8
	Total (excluding Singapore)	383	2 454	5 299	7 609	10 343	7.4	23.0	28.2	30.9	34.4
Malaysia	Total	214	1 382	3 071	3 924	4 815	1.2	5.3	7.3	8.7	9.3
	Total (excluding Singapore)	206	1 242	2 898	3 736	4 561	3.8	13.2	16.9	19.1	20.6

Notes: 1) The value for exports utilizing AFTA employs values under the Common Effective Preferential Tariff (CEPT), the AFTA tariff-lowering scheme.

2) The share to the total exports is the value of exports utilizing AFTA/total value of exports. Total value of exports includes items for which tariffs have been eliminated on a MFN basis by the trading partner.

Sources: Prepared based on Malaysia Ministry of International Trade and Industry, Thailand Ministry of Commerce and trade statistics for various countries.

In August 2008, AFTA members started to introduce a criterion of the rule of origin based on a change in tariff classification, in addition to the criterion based on the value-added content.²² Exporters can now choose between these criteria. The introduction of the tariff classification criterion is particularly welcome for exporters of flat-screen televisions, a product of great interest to many Asian firms. Liquid crystal panels make up most of the value-added content in flat-screen televisions, but they are manufactured only in a small number of countries, such as Japan and the Republic of Korea, are not yet manufactured in the ASEAN countries, and thus could not satisfy the AFTA rules of origin. The newly introduced tariff-classification criterion will make it easier for flat-screen televisions to satisfy AFTA rules of origin and could thus promote further utilization of AFTA by Japanese and Korean firms in the future.

As a large number of FTAs are being concluded in the Asia-Pacific region, discussion has begun on the necessity for harmonization of rules of origin. In terms of the standard for the certification of origin, while some FTAs offer exporters a choice of standards, others require only the value-added content criterion, only the change in tariff-classification criterion, or both criteria, to be satisfied. Firms using FTAs in the Asia-Pacific region are demanding to be offered a choice of criteria. Hence it will be essential to intensify discussions on the appropriate direction for the rules of origin, taking into consideration the further internationalization of corporate activities as the FTAs begin to cover a broader geographic area. It will also be important to give further consideration to methods of certification of origin, such as discussing the introduction of exporter certification systems.

Turning to the status of utilization of the ASEAN-China FTA in Malaysia and Thailand, the value of exports using the FTA from both countries was US\$ 3.6 billion in 2008, representing only 10 per cent of the total value of their combined exports to China. The utilization rate of the ASEAN-China FTA has remained unchanged, but is expected to increase from 2010, when tariffs are abolished on the majority of products. The relatively low utilization rate of the ASEAN-China FTA at present may be explained by systems outside the scope of the FTA, such as a system for tariff waivers on intermediate goods for the production of exported goods.

Thailand has effective bilateral FTAs with both Australia and India. The value of Thai exports under the Thailand-India FTA is US\$ 400 million, or 12.3 per cent of the total value of Thai exports to India. Thailand and India have implemented an early harvest scheme (fast-track tariff reductions) which covers 82 products in their FTA. If we use the total export value of the products covered by this scheme as the denominator, the utilization rate goes up to 83.4 per cent. The value of Thai exports under the Thailand-Australia FTA is US\$ 4.9 billion, representing 62 per cent of total Thai exports to Australia. Among Thai exports to India, the FTA is used most frequently for export of electrical goods, including televisions and air conditioners. In the case of its exports to Australia, the utilization of the FTA is most prominent for the export of automobiles.

²² The value-added content criterion considers a product being of the origin of a country when the product's value is added in the country concerned to an amount equivalent to or greater than a predetermined figure. A standard based on changes in the tariff classification criteria requires that the tariff classification number of a finished product manufactured in a signatory country differ from that of a material not originating in that country that was used in the manufacture of the product.

(3.3) Consideration of the wide-area FTAs

As the networking of ASEAN+1 through FTAs in the Asia Pacific region is largely complete, attention is now shifting to the formation of wider-area FTAs, such as ASEAN+3 and ASEAN+6. ASEAN+3 encompasses China, Japan and the Republic of Korea in addition to the ASEAN countries, and ASEAN+6 includes Australia, India and New Zealand in addition to the ASEAN+3 framework. Research on the viability of FTAs for both frameworks is being undertaken.

With ASEAN+3 and ASEAN+6 FTAs under review, the concept of an APEC-wide FTA presents a vision of an FTA covering an even broader area.

This APEC-wide FTA, proposed by the United States, is termed the Free Trade Area of the Asia Pacific (FTAAP). The FTAAP was put on the agenda as a long-term project at the 2006 APEC Leaders Summit. APEC is made up of 21 nations located in and around the Asia-Pacific region. Twelve members of ASEAN+6 are also APEC members (Cambodia, India, Laos and Myanmar are not APEC members). APEC operates on the basis of non-binding commitments and has not previously discussed the formulation of binding agreements, such as FTAs. The start of FTA negotiations could therefore suggest a significant shift in direction for APEC.

Among APEC members, the United States has already concluded FTAs with a number of countries in North and South America, including Canada, Chile, Mexico and Peru. But in the Asian region, the United States has concluded FTAs only with Australia and Singapore. An FTA has been signed with the Republic of Korea, but is not yet in force. As FTA negotiations that exclude the United States are proceeding in the Asia-Pacific region, American interest in establishing an FTA with countries in the region is increasing.

The Trans-Pacific Partnership Agreement (TPP) is an FTA related to the FTAAP in which the United States does participate. The TPP, also known as the P-4, was originally an agreement formulated between Brunei, Chile, New Zealand and Singapore in 2006. In March 2008, the TPP parties commenced negotiations on investment and financial services, which had previously been set aside. In February 2008, the Bush administration announced its intention to participate in these negotiations, and in September 2008, the United States further announced its desire to participate in all aspects of the TPP negotiations. Australia and Peru are also scheduled to join the negotiations, and Viet Nam has expressed interest. In October 2010, Malaysia joined the negotiations. These countries are all members of APEC, and the TPP could therefore provide a basis for negotiations towards an APEC-wide FTA involving the United States.

Table I-7 below shows the percentages of world population, GDP, and trade encompassed by the various wide-area FTAs discussed above. ASEAN+3 and ASEAN+6 respectively encompass 31 per cent and 50 per cent of the world's population, 19 per cent and 23 per cent of world GDP, and 23 per cent and 25 per cent of world trade. With the United States and Japan as members, an APEC-wide FTA would encompass more than half of the global economy, representing 41 per cent of the world's population, 53 per cent of world GDP, and 44 per cent of world trade.

Table I-7. Region-wide FTA concepts involving the Asia-Pacific region and their position in the world economy (2008)

	Share to world population	Share to world GDP	Share to world trade
World	6 653.43 million	60.6898 US\$ trillion	15.8908 US\$ trillion
ASEAN+3	31.4%	19.4%	22.7%
ASEAN+6	49.6%	23.3%	25.2%
FTAAP (APEC)	40.6%	53.3%	43.7%
TPP	5.7%	26.0%	12.3%

Notes: (1) Member nations making up region-wide FTA concepts are as follows:

ASEAN+3: ASEAN10, Japan, China, South Korea.

ASEAN+6: ASEAN10, Japan, China, South Korea, Australia, New Zealand, India.

APEC(FTAAP): Australia, Brunei, Canada, Chile, China, Hong Kong (China), Indonesia, Japan, South Korea, Malaysia, Mexico, New Zealand, Papua New Guinea, Peru, the Philippines, Russia, Singapore, Taiwan, Thailand, United States and Viet Nam.

TPP: US, Singapore, Brunei, New Zealand, Chile, Australia, Peru.

(2) World population is the total of 180 countries.

(3) World GDP is nominal GDP (dollar basis, converted at market exchange rate).

Sources: Prepared based on WEO(IMF) and trade statistics for various countries.

Intraregional trade reaches 44 per cent in the Asia-Pacific region

In part due to the conclusion of successive FTAs, intraregional trade within the Asia-Pacific region is increasing. Table I-8 below shows the intraregional trade of major existing and planned regional groupings in the Asia-Pacific region, the EU, and North America. ASEAN+6 intraregional trade (two-way trade and adjusted for re-export) accounted for 44 per cent of the total in 2008, which exceeds that of NAFTA. APEC intraregional trade (adjusted for re-export) accounted for 64 per cent of the total in 2008.

The increases in intraregional trade could be due to a variety of factors, such as the promotion of direct investment and the reduction of distribution costs. From the systemic perspective, the reduction of tariffs brought about through FTAs may also have promoted this growth in intraregional trade.

In the major FTAs in the Asia-Pacific region, tariffs are expected to be abolished as from 2010. In AFTA, the ASEAN-six have already removed tariffs on almost all products for intra-ASEAN trade, and the majority of goods have been made tariff-free in the ASEAN-China and ASEAN-Republic of Korea FTAs. We have entered the era of full FTA utilization, and the agreements are driving further increases in intraregional trade in the major regions of the world.

(3.4) FTA trends in the United States and the European Union

The Bush administration consistently promoted a free trade agenda, and expanded United States market access by means of FTAs against the background of the stalled Doha Round. Prior to the Bush administration, the United States had four FTA partners. The Bush administration concluded FTAs with 16 more countries, having actively pursued FTA negotiations with countries in Central and South America, the Middle East, and Asia.

Table I-8. Intraregional trade within major regions of the world (two-way trade)

		1980	1990	1995	2000	2005	2006	2008	2008
Asia	ASEAN+6 (adjusted for re-exports)	-	-	-	41.9	44.1	43.2	43.1	44.2
	ASEAN+6	33.2	33.0	40.3	40.6	43.1	42.4	42.3	43.5
	ASEAN+3	28.9	28.6	36.9	37.4	39.1	38.2	37.8	38.5
	ASEAN	15.9	17.0	21.0	22.7	24.9	24.9	25.0	26.7
	ASEAN+China	14.9	15.8	19.1	20.1	20.7	20.7	20.6	21.7
	ASEAN+India	15.1	16.5	20.7	22.3	23.9	23.9	23.9	25.4
	ASEAN+Japan	23.4	21.7	27.4	26.4	26.0	25.4	25.6	27.2
	ASEAN+6+Taiwan	35.1	36.2	43.7	44.9	47.7	46.9	46.6	47.3
	ASEAN+3+Taiwan	30.9	32.0	40.4	41.9	44.1	43.1	42.5	42.5
	ASEAN+Taiwan	15.8	17.3	21.7	23.8	25.0	25.1	25.2	26.6
Americas	NAFTA	33.2	37.2	42.0	46.8	43.0	42.0	41.1	39.9
Europe	EU27	57.3	65.4	65.1	64.6	64.2	64.6	65.1	63.9
	APEC (adjusted for re-exports)	-	-	-	71.4	68.2	67.1	65.8	64.1
	APEC	57.5	67.5	71.6	72.3	69.3	68.3	67.0	65.2
	TPP	7.6	8.5	8.9	7.2	6.9	7.1	7.0	7.1

Notes:

- (1) ASEAN+6 is composed of the ASEAN countries plus Japan, China, South Korea, Australia, New Zealand and India.
- (2) ASEAN+3 is comprised of the ASEAN countries plus Japan, China and South Korea.
- (3) APEC is comprised of Australia, Brunei, Canada, Chile, China, Hong Kong, Indonesia, Japan, South Korea, Malaysia, Mexico, New Zealand, Papua New Guinea, Peru, the Philippines, Russia, Singapore, Taiwan, Thailand, the United States and Viet Nam.
- (4) TPP is comprised of the US, Singapore, Brunei, New Zealand, Chile, Australia and Peru.
- (5) The share of intra-regional trade was calculated by (Value of intra-regional exports + Value of intra-regional imports) / (Value of exports to the world + Value of imports from the world) x 100.
- (6) In terms of ASEAN+6 (adjusted for re-exports), adjustments to the estimations of intra-regional exports were made by excluding re-exports as duplicate postings, using the estimation method below.

<Adjustments to Singapore, one of the ASEAN+6 countries>

- (a) For the value of Singapore's exports, the value of exports of Singapore origin to the world was used.
- (b) For the value of Singapore's exports to ASEAN+6, the value of exports of Singapore origin to ASEAN+6 was used.
- (c) Imports of Singapore from the World = Total value of imports from the world - Value of re-imports from the World.
- (d) Imports of Singapore from ASEAN+6 (estimate) = Value of imports from ASEAN+6 x ((Value of imports from the World - Value of re-exports from the World) / Value of imports from the World).

<Adjustments to Hong Kong, one of the non-ASEAN +6 countries>

In addition to the amount of intra-regional exports of the ASEAN+6, calculated using the above procedures, the following adjustments were made:

- (a) Value of re-exports from ASEAN+6 to ASEAN+6 via Hong Kong is added.
- (b) Of the above re-exports, those that have been re-exported from China to China via Hong Kong have been excluded (since they are considered to be domestic Chinese trade.)

- (7) As a member of APEC, Hong Kong's figures were adjusted according to the same method used for ASEAN+6 member state Singapore.

Sources: Prepared based on DOT(IMF) and trade statistics of Taiwan, Hong Kong and Singapore.

Since the advent of Democratic majorities in the House and the Senate in October 2006, the Senate has not yet ratified a number of the FTAs concluded by the Bush administration, i.e. those with Colombia, the Republic of Korea and Panama. Following the global financial crisis in September 2008 and the subsequent global recession, the priority of the Obama administration has been to rebuild the domestic economy. Given this, it is highly likely that trade policy will be placed on the back burner, and that there will be slower progress in FTAs involving the United States.

As for the EU, it has been deepening the degree of within-region integration, as well as stabilizing its ties with the non-EU Balkan and Mediterranean countries. The EU has also concluded FTAs with Chile and Mexico, and is involved in FTA negotiations with various Central and South American countries, including MERCOSUR and the Andean Community (CAN). The EU began FTA negotiations with the Gulf Cooperation Council (GCC) in 1990, but these have now entered their nineteenth year.

In addition, since the expiry in December 2008 of a preferential tariff agreement (the Fourth Lomé Convention) with the African, Caribbean and Pacific Group of States (ACP), the EU has moved forward with negotiations on FTAs with these nations. Among the ACP nations, the EU already has FTAs in effect with the CARIFORUM nations, with the exception of Haiti.

With respect to Asia, in October 2006 the EU announced a new trade strategy under the banner “Global Europe,” making clear its intention of pursuing FTAs with the rapidly growing emerging nations of Asia. The EU has pushed ahead with negotiations with ASEAN, India and the Republic of Korea. Of these, the EU-Republic of Korea FTA should receive the closest attention. The negotiations began in May 2007, and were tentatively signed in July 2009. The major stumbling block in the negotiations was a provision that the Republic of Korea would retain its duty drawback system, under which tariffs on the imported parts or raw materials used in specified products for export are refunded. This system could indirectly allow countries outside the bilateral FTA to benefit from the FTA in relation to exports to the EU. The EU therefore demanded the inclusion of a clause prohibiting use of the duty drawback system. The Republic of Korea insisted that it was unable to accept the prohibition of the system, on the grounds that it was an existing system with no relation to the FTA, and that the country imported many of its parts and raw materials from countries other than the EU. Finally, they agreed to include a special provision which, among others, set an upper limit for the duty drawback system.

EU negotiations with India and ASEAN have proceeded at a slow pace. The EU-India negotiations began in June 2007. To date, nine rounds of negotiations have been completed (the ninth round took place in 28-30 April, 2010). The negotiations are reported to have encountered difficulties in a broad range of areas, such as tariffs, services, investment, government procurement, intellectual property rights and environmental and labour standards. The EU and ASEAN began negotiations in May 2007, but also encountered various difficulties, and the parties agreed to temporarily suspend negotiations in May 2009. The EU wishes to pursue FTA negotiations separately with the ASEAN member countries, although the ASEAN side is opposed to this. The EU Council of Ministers has approved the start of individual negotiations with each ASEAN country and it is planned to start negotiations with Singapore.

4. Need to monitor post-crisis changes in the business environment

(4.1) The strengthening of the WTO and the conclusion of FTAs will be effective against the new increase in trade-restrictive measures in the post-crisis world

The worsening global situation since the financial crisis in September 2008 has often been compared to the Great Depression of the 1930s. The trade-limiting measures put in place by the United States at that time drew similarly protectionist reactions from Europe, intensifying the depth of the recession.

Since the financial crisis, a succession of measures have been introduced around the globe to protect national industries, including the introduction of the “buy American” clause in the United States and a series of tariff hikes in emerging nations. This situation has raised concerns that trade conflicts of the type that occurred in the Great Depression may be looming. However, the decisive difference between the trade environment of the past and that of today is the existence of WTO rules. Almost all of the trade-limiting measures introduced since the financial crisis appear to remain within the scope allowed by the various WTO agreements. If WTO rules are violated by a WTO member, however, requests from other members for rectifying such measures would be launched via the sophisticated WTO judicial process. The WTO has proved to be functioning as a bulwark against the global protectionist trend.

However, during the recession demands for protectionist measures will continue. The loss of markets and the negative impact on supply chains generated by trade-restricting measures would hit hard major economies, such as Japan, which seek footholds in overseas markets. Therefore, in addition to urging WTO members to respect the WTO rules, countries need to actively participate in the enhancement of the WTO system for surveillance of protectionist measures.

In addition, the major trading nations must continue to send the message that they firmly support the principle of trade liberalization. The conclusion of the Doha Round would mean the liberalization of trade throughout the world, and would send a powerful message regarding adherence to the free trade system. The reduction of all bound tariff rates and the consequent narrowing of the margin for tariff increases by WTO member States would increase the predictability of trade.

The conclusion of FTAs, despite the fact that their benefits are limited to the signatories, also sends a message regarding adherence to free trade. FTAs entail liberalization through the reduction of tariffs and other measures, and also have a powerful effect in controlling tariff increases and the introduction of NTBs. The importance of their role as supplements to the WTO rules is increasing.

(4.2) Post-2010: towards the era of the FTA

It is expected that tariffs will in effect be eliminated in the major FTAs in the Asia-Pacific region from 2010 onwards. In AFTA, the ASEAN-six will eliminate tariffs on almost all products for the ASEAN market. In addition, tariffs will be eliminated on the majority of goods in the ASEAN-China FTA and the ASEAN-Republic of Korea FTA. The phased tariff reductions scheduled in Japan's FTAs with the ASEAN nations will also progress further, and the ASEAN-Australia-New Zealand FTA is

expected to go into force and the ASEAN-India FTA to be signed during 2010. The era of the FTA is arriving, and it is clear that this will have an effect in further boosting intraregional trade in the world's major regions.

From this perspective of an increasing number of FTAs, it will be essential for governments to promote the private sector's understanding of the nature and operation of individual FTAs, and to make efforts to improve, including through renegotiating, the contents of FTAs if a problem arises. The value of FTAs is not in their conclusion, but in their effective use by the private sector.

(4.3) Expanding areas of trade talks

Today's multilateral trade talks tend to focus on conventional trade issues such as tariffs, non-tariff barriers (NTBs) and agricultural subsidies. As international business diversifies, however, the type of trade liberalization and the rules demanded by companies are expanding beyond the existing WTO framework. It is possible that the pace of such changes in the business environment will increase even more when the world emerges from the financial crisis and recession.

WTO-plus liberalization and regulation show progress through the medium of FTAs and the WTO plurilateral agreement (GPA) in such areas as investment and services, government procurement, and intellectual property rights. At the same time, a trend towards increased cooperation in the area of competition policies, not covered by the WTO framework, can also be observed. Against this background, it can be foreseen that there will be a greater push to expand the scope of future global trade talks to include those "new" areas.

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CHAPTER II

NEW REALITIES IN INTERNATIONAL TRADE: SOME POLICY QUESTIONS¹

“... moving out of a crisis of such magnitude offers a rare historical chance for change, a momentum for reform, and an opportunity for a new trade agenda adapted to the new realities. As the great economist J.K. Galbraith famously said, ‘[ideas] yield not to the attack of other ideas, but ... to the massive onslaught of circumstance[s] with which they cannot contend’.”

Supachai Panitchpakdi, Secretary-General of UNCTAD,
at the second session of the Trade and Development Commission, 3 May 2010

1. International trade is much more intertwined than two decades ago

Much has happened in the international trading environment since the establishment of the WTO in 1995.

Changes in the geopolitical environment, i.e. the end of the East-West divide, brought many countries of the former Eastern bloc - including China, Viet Nam and Central and Eastern European countries - into the WTO system, which is now almost universal in terms of membership. Furthermore, many European economies “in transition” have successively become members of the European Union (EU).² In the past 15 years, we witnessed the massive expansion of world trade, and the WTO, as an open and rule-based multilateral trading system, has been one of the major factors behind it.

¹ This chapter was prepared by the UNCTAD secretariat.

² After the European Union (EU) membership expansion in 1995 that included Austria, Finland and Sweden (members of the European Free Trade Agreement), the following countries that had previously had socialist, centrally-planned economies became members of the EU: Bulgaria, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovakia and Slovenia. Croatia, the former Yugoslav Republic of Macedonia and Turkey, which are all WTO members, are candidates for EU membership.

Fast economic globalization during this period is also a result of the increased importance of the trade-investment nexus. More trade now takes place through a complex web of global production sharing networks (i.e. supply chains) such as those in the sectors of garments, electric/electronic products and automobiles to mention a few. Intra-firm trade as a share of the world trade flows has increased massively in the past decade, particularly in developing countries in Asia. The emergence of global supply chains enhanced the growth of south-south trade, particularly in East Asia, and involving emerging economies such as China and India which are now seen as the new economic growth pole.

The speed of the world trade growth was exceptionally fast in the period between 2000 and 2008, at the average rate of 14 per cent per annum. But the eruption of the financial crisis at the end of 2008 and the subsequent global economic downturn turned the growth in world trade negative. In 2009, world trade is estimated to have contracted by 10 to 15 per cent, although a gradual recovery seems to have started from the fourth quarter of 2009 onwards.³

We also note that the crisis further increased the economic significance of the emerging economies of Asia as they recovered much faster from the crisis than the developed economies. According to a G-20 paper, quarter-to-quarter growth of exports developing Asia in the fourth quarter (Q4) of 2009 was 10 per cent, and annual growth was 46 per cent, compared to 4 per cent and 17 per cent respectively for developed countries.⁴

2. The crisis influenced the outlook of the Doha Round

When the signs of the global recession first loomed after the financial crisis, there was serious concern that market protectionist sentiment would undermine the multilateral trade rules established under the WTO. However, countries chose to adhere to the WTO rules, instead of following the path that led to the Great Depression in the 1930s, when a proliferation of destructive protectionist trade measures prolonged the global economic depression. This is evidenced by the fact that new trade-restrictive measures introduced in the period between September 2009 and February 2010 cover only 0.4 per cent of world imports (or 0.7 per cent of Group of 20 (G-20) imports).⁵

At the outbreak of the financial crisis, all leaders of the major developed and emerging economies uniformly stressed that the conclusion of the Doha Round would be an important confidence-builder in the world economy. At the G-20 summit in Washington D.C. in November 2008, they agreed to “strive to reach agreement this year [2008] on modalities that lead to a successful conclusion to the WTO’s Doha Development Agenda with an ambitious and balanced outcome. ... We also agree that our countries have the largest stake in the global trading system and therefore each must make the positive contributions necessary to achieve such an outcome.”⁶ This message has been echoed at subsequent G-20 summits and at other international meetings.

³ “Successful trade and development strategies for mitigating the impact of the global economic and financial crisis”, note by the UNCTAD secretariat for the second session of the Trade and Development Commission (TD/B/C.1/7 and Corr. 1).

⁴ Report on G-20 Trade and Investment Measures (September 2009 to February 2010), prepared under the joint responsibility of the Director-General of the WTO, the Secretary-General of OECD, and the Secretary-General of UNCTAD (8 March 2010).

⁵ Organisation for Economic Co-operation and Development (OECD)/WTO/UNCTAD report submitted to the G-20 (8 March 2010).

⁶ Declaration of the G-20 Summit on Financial Markets and the World Economy, Washington D.C., November 2008.

Box 1. The development of the Doha Round since 2001

The Doha Round of multilateral trade negotiations officially started with the declaration of the Fourth WTO Ministerial Conference in Doha in November 2001. Agricultural trade, market access for non-agricultural products (generally termed NAMA), services trade, trade and environment, and WTO rules were selected as the issues on which negotiations should start right away. In addition, with a view to starting negotiations after the subsequent Ministerial Conference, working groups on the so-called Singapore issues (trade and investment, competition policy, transparency in government procurement), and trade facilitation were created. At the start of the negotiations, it was envisaged that the Doha Round would be concluded no later than 1 January 2005.

However, at the Fifth Ministerial Conference in Cancún in 2003, there was a serious “north-south divide” between developed countries which supported liberalization and rule-setting on the Singapore issues and a large number of developing countries which found the negotiations on these issues to be premature. Eventually, in August 2004, the WTO members decided to remove the Singapore issues from the Doha Round of negotiations.* Negotiations on other issues (including trade facilitation) continued, albeit having missed their deadlines several times. In July 2008, members came up with a compilation of draft “modalities”, (i.e. the methodologies for liberalization and frameworks for regulation), which was termed “the July 2008 package”. Since then, however, there has been no breakthrough in negotiations.

*The Doha Agenda work programme - decision WT/L/579 adopted by the WTO General Council on 1 August 2004

However, such manifestations have not been converted into actual progress in the Doha negotiations. Instead, the governments of developed and developing countries continued to make the maximum use of the policy flexibility in the WTO rules when designing and executing the policy measures in response to the global recession.

Take tariffs as an example. The existing gap between the applied tariff rate and the WTO bound rate proved rather convenient to developing countries in formulating a policy response to the crisis. In fact, this so-called “policy water” between tariffs served to contain any tariff hike within the upper ceiling, i.e. enabling developing countries to use tariff barriers as an emergency measure for the protection of their strategic industries (e.g. steel) without violating WTO rules. This, however, would not fit well with the Doha Round negotiations on non-agricultural market access (NAMA), where further cuts in the bound tariffs of developing countries, i.e. reduction in the policy water, is the main contentious issue.

In the agricultural sector, the EU reactivated export subsidies for dairy products (e.g. milk, butter) in January 2009.⁷ This was followed by the reintroduction by the United States of America of export subsidies for milk in May 2009.⁸ In both cases, the amount of the subsidies remained within WTO commitments.

As regards subsidies, economic stimulus packages of major economies such as the United States and the EU included sector-specific or firm-specific subsidies, often in the form of financial support to their ailing firms. These measures, rather than being criticised as a potentially WTO-inconsistent subsidy, received a warm welcome from other governments and business sectors worldwide, especially when those were addressed to transnational corporations (e.g. automobile firms) with global production networks.

⁷ “Dairy market: Commission proposes additional measures to help dairy sector”, EUROPA Press Release (IP/09/57), the European Union.

⁸ “USDA announces 2008-2009 allocations for dairy export incentive program”, Foreign Agricultural Service Press Release (No. 0178.09), May 2009, USDA.

We also note that a large number of “emergency” trade measures taken by governments were typically non-trade measures (NTMs), such as new import licence schemes and new or stricter technical requirements for imports. The relevant WTO agreements, i.e. the SPS Agreement and the TBT Agreement, prevent arbitrary use of NTMs with a trade-restrictive effect. However, proving protectionist intent under the guise of a legitimate concern over, e.g. consumer health and safety, is extremely difficult, time-consuming and costly, as has been seen in WTO dispute settlement cases in the past (see chapter IV).

Despite various attempts to reinvigorate the negotiations in Geneva, such as the stocktaking of the Doha Round at the end of March 2010, the negotiators appear to feel that the conclusion of the Doha Round within the year 2010 is unrealistic.

3. Bilateral and regional free trade agreements (FTAs) are here to stay

While the Doha Round negotiations stagnate, the number of regional and bilateral FTAs - all of which are termed regional trade agreements (RTAs) in the WTO - has significantly increased particularly in the last five years. According to the WTO, as of February 2010, 271 regional trade agreements (which include bilateral FTAs) were in force.⁹ That trend suggests that the business sector is increasingly looking to FTAs as a more effective means of market opening than multilateral trade negotiations.

The EU and the United States remain major players in today’s FTA landscape. The EU is currently involved in 27 FTAs, 17 of which entered into force after 2000. The United States is involved in nine bilateral FTAs, eight of which entered into force after 2000. Three more FTAs had previously been signed (the United States-Korea FTA, the United States-Colombia FTA and the United States-Panama FTA) and were awaiting ratification. The EU is negotiating FTAs with four more countries (Canada, India, the Republic of Korea and Ukraine), and announced in May 2010 that it would resume trade talks with the Southern Common Market (MERCOSUR), which had been stalled since 2004.

Another group of prominent players of FTAs today is countries in East and South Asia. Only in this region were more FTAs concluded in the twenty-first century than in the entire previous century (Table II-1). This trend will continue with the numerous FTAs now under negotiation. Major and emerging economies in the region (China, India, Japan, Republic of Korea,) are involved in FTA negotiations with one another which, once concluded, will have massive economic implications for the region, as well as the world as a whole (Table II-2).

Table II-1. Concluded bilateral and plurilateral trade agreements (up to 2007)*

	East and South Asia	Europe	Americas	Africa
Twentieth century	17	156	111	52
Before 1990	10	80	56	37
1990-1999	7	76	55	15
Twenty-first century				
2000-2007	37	76	55	24
TOTAL	56	232	166	76

* Based on Hufbauer and Schott (2007), Table 1.

⁹ The list of all regional trade agreements (RTAs) in force is available at <http://rtais.wto.org/UI/PublicAllRTAList.aspx>.

In addition, there are moves towards formulating wider-area FTAs with the Association of Southeast Asian Nations (ASEAN) as the hub, e.g. ASEAN+3 (including China, Japan, and Republic of Korea) and ASEAN+6 (ASEAN+3 countries plus Australia, India and New Zealand). If we expand the picture to the Asia-Pacific region, there is now serious discussion about creating the Free Trade Area of Asia and Pacific (FTAAP) for 21 member countries of the Asia-Pacific Economic Cooperation (APEC).

The agreements involving parties from different regions are recorded for each region, thus the total number involves double counting.

Table II-2. Bilateral or plurilateral FTAs in East Asia (by status)*

	ASEAN	Japan	China	Korea, Rep. of	India
ASEAN	■	■	■	■	●
Japan	■	--	◦	●	●
China	■	◦	--	◦	◦
Korea, Rep. of	■	●	◦	--	●
India	●	●	◦	●	--

* Based on Kawai and Wignaraja (2009), Table 1. ■=FTA negotiations signed or FTA in place; ●= official negotiations underway; ◦= official negotiations not yet started.

Source: ADB Asia Regional Integration Center FTA database (www.aric.adb.org). Data as of June 2009.

Another significant feature is that, while FTAs or customs unions before the Uruguay Round mainly involved tariff liberalization (i.e. of goods), FTAs enacted in the twenty-first century are much wider in scope, covering liberalization in both goods and services, and often involve regulatory issues that are included in WTO agreements, as well as those that are outside the WTO (“WTO-plus” and “WTO-extra” provisions).

What has driven the recent rise in FTAs? First, for practical purposes, FTAs may be preferred to multilateral agreements because sensitive sectors can be excluded, partners can be selected, and “customization” of the contents is possible (Scollay).

Second, Bergsten’s concept of “competitive liberalization” (which was further elaborated by Baldwin), fits well with the current circumstance of proliferating FTAs, especially in Asia. One major FTA (e.g. the ASEAN FTA (AFTA) or the ASEAN-China FTA) and its market opening outcome could shift the political clout in a country from import-competing industries to exporters, which would support their own government in reducing domestic tariffs in exchange for market opening in partner countries. Because reciprocity is the key to competitive liberalization, the idea works better in an FTA framework than in a multilateral framework. In FTAs, market opening by a partner or partners is more tangible and immediate than multilateral liberalization, especially when big markets like China and India are involved.

Third, developing countries may see FTAs as a way to attract foreign direct investment (FDI) not only from FTA partners but also from major economies outside the FTA, as was demonstrated by massive FDI inflow to Mexico after NAFTA came into force in 1994. Mexico’s inward FDI stock, which was 8 per cent of GDP in 1994, increased to 23 per cent in 2001 and 27 per cent in 2005/2006 (UNCTAD, 2007).

Finally, FTAs may have been playing a role also in regularizing trade and investment already taking place in the region or between partners. This has been the underlying feature of regional integration in East Asia, where “... East Asian (free trade) pacts ratify the status quo and, in some sense,

codify the integrated production networks already operating in the region – networks that are linked by expanding flows of intra-regional trade and investment. In other words, regional integration is evident in the marketplace, and governments are catching up to acknowledge that fact and facilitate its future evolution” (Hufbauer and Schott, 2007).

What does the proliferation of FTAs imply to the international trading environment? Would it undermine fair and equitable international trading system?

This issue was hotly debated in the 1980s at the time of the “second wave of regionalism” (Bhagwati, 1993), when two major economic powers, the United States and the European Community, became engaged in creating or expanding trading blocks.¹⁰ Having signed the Canada-United States FTA, the United States engaged in negotiations with Mexico for a similar arrangement, in which Canada also joined. The North American Free Trade Agreement (NAFTA) entered into force in January 1994. The European Community signed the Single European Act in 1986, which aimed to create a single market by the end of 1992. Eventually, the entering into force of the Maastricht Treaty in 1993 created the European Union and led to the establishment of a common currency, the euro.

The wave of regionalism at that time did not undermine the multilateral trading system. Rather, some take the view that the EU single market programme fostered the launch of the Uruguay Round, as non-EU exporters recognized that multilateral trade liberalization would be an effective means of overcoming the challenge posed by the strengthening of the European trading block (Baldwin, 2004).

But today’s regionalism has a very different face from the previous one – it is characterized by a large number of bilateral FTAs rather than between trading blocks (regional FTAs). As almost all the WTO members are parties of one or more FTAs, the most-favoured-nation (MFN) principle in international trade is gradually becoming an exception rather than the rule.

4. Certain FTAs act as “hegemonic” multilateralization of trade rules

What, then, motivates the EU and the United States, in concluding FTAs with countries which are smaller in economic and market size?

A recent study by Horn and others suggests that, for the EU and the United States, the main interest could be to use FTAs “... as a means of transferring the regulatory regimes of the EC and the US to other countries” (Horn, Mavroidis Sapir, 2009). The study examines the scope and legal depth (i.e. whether it is legally binding or not) of the contents of their recent bilateral FTAs, and finds that the EU and United States FTAs include a wide range of “WTO-plus” and “WTO-extra” clauses.¹¹ Not all such provisions are legally enforceable, but a significant number of WTO-plus clauses and certain WTO-extra clauses (especially the Singapore issues, i.e. investment, intellectual property rights (IPR) protection, and competition policy) are (Table II-3).

¹⁰ The “first regionalism”, according to Bhagwati, was during the period leading to the formation of the European Community by the Treaty of Rome in 1957 and during the 1960s, when there were numerous ideas of establishing FTAs between developing countries as well as between developed countries.

¹¹ Horn, Mavroidis and Sapir define as “WTO-plus” clauses those that go further than the provisions in the relevant WTO agreement, including industrial and agricultural tariff cuts, services liberalization, sanitary and phytosanitary (SPS) measures, technical barriers to trade, state trading enterprises, government procurement, and so forth. “WTO-extra” clauses are defined as areas that are currently excluded from the WTO rules, including competition policy, environmental laws, intellectual property rights (IPR), investment, labour standards and movement of capital, among others.

Table II-3. The FTAs of the European Union and the United States: depth of commitments in WTO-plus and WTO-extra areas*

	Depth of commitments
WTO-plus	
Government procurement	Both the EU and the United States include the disciplines imposed through the WTO Agreement on Government Procurement. It essentially establishes a forum where trading partners will make offers and will apply national treatments to each other in their respective procurement markets.
General Agreement on Trade in Services (GATS)	The EU approach is akin to that followed by GATS, with reciprocal offers and the trade in services to be based more or less on the same principles as GATS. The United States sometimes opts for obligations that are not in GATS: e.g. its FTA with Chile includes an obligation whereby both parties must communicate to the other party services-related laws at the draft stage, that is, before the law has been actually enacted.
WTO-extra	
Competition policy	Almost all FTAs involving the EU contain competition-related provisions that are legally enforceable, although the level of enforceability varies across agreements. By contrast, only half the United States FTAs contain competition provisions, and none is legally enforceable.
Environment	All United States FTAs (excluding the one with Israel) contain legally enforceable obligations regarding environmental protection. By contrast, only two EU FTAs (with the European Economic Area and the Caribbean Forum of African, Caribbean and Pacific States (CARIFORUM)) contain legally enforceable obligations in this area. None of the FTAs requires adherence to new or detailed environmental standards. Instead, the FTAs commit the parties to protecting the environment by calling upon them to enforce their own domestic environmental laws and not weaken them to foster exports or foreign investment.
Intellectual property rights (IPR)	Nearly all EU and United States FTAs contain legally enforceable clauses that oblige the parties to become signatories to various international IP agreements that are not covered by the trade-related aspects of intellectual property rights (TRIPs). United States FTAs impose obligations in many more aspects of IP than EU FTAs (e.g. Patent Cooperation Treaty, International Convention for the Protection of New Varieties of Plants, Trademark Law Treaty, World Intellectual Property Organization (WIPO) Copyright Treaty, WIPO Performances and Phonograms Treaty, among others).
Investment	The majority of EU and United States FTAs contain legally enforceable obligations. However, there seems to be a difference in scope. EU FTAs (e.g. that with Chile) basically oblige the parties to “provide information on investment rules, developing a bilateral legal framework to promote and protect investment, technical assistance” etc. United States FTAs, on the other hand, can contain legally enforceable rules whereby parties agree to extend MFN and national treatments to each other, as well as mechanisms for compensation in cases of expropriation, etc.
Movement of capital	This is the WTO-extra area where the largest number of EU (13 out of 14) and United States (12 out of 14) FTAs contain legally enforceable obligations. Typically, the obligations relate to direct investment such as the following: “with regard to movement of capital of the Balance of Payments...the Parties shall allow the free movement of capital relating to direct investments made in accordance with the laws of the host country and investments...and the liquidation or repatriation of these capitals and of any profit stemming therefrom” (EC-Chile FTA).

* Excerpts from Horn, Mavroidis, Sapir (2009), appendix A, appendix B and appendix Table A.3.2

Inclusion of WTO-plus and WTO-extra provision seems to be a pattern specific to north-south FTAs. More than 50 per cent of the existing north-south FTAs in East and South Asia cover all the Singapore issues, while 41 per cent of south-south FTAs in Asia do not include any of the Singapore issues and the rest contain only one or two of the Singapore issues (Wignaraja and Lazaro, 2010).

Why do developing countries, many of which firmly rejected the idea of including investment and competition policy in the Doha Round of negotiations, actually take up commitments under the FTA framework? Hoekman and Winters (2007) term the rulemaking under the FTAs involving the United States or the EU as “hegemonic multilateralization” of trade rules, where “...a hegemonic economic power (e.g. the EU and the US) is essentially able to impose its own model (or at least a model consistent with its own stand) on its partners, not necessarily coercively but by the force of its market size. As

different partners adopt the hegemon's approach over their own local ones, a degree of multilateralization is achieved. And it is possible that as the partners enter further bilateral or regional arrangements with other partners the model is extended.”

An obvious downside of such “hegemonic” market opening and transferring of trading rules via FTAs is: (i) pressure on developing countries to open markets beyond what is agreed at the WTO (e.g. services, investment, and government procurement to an extent); and (ii) imposition of a regulatory framework that is not suitable to the level of development (e.g. IPR protection, competition policy, environmental measures). Let us look into the cases of government procurement and intellectual property.

Government procurement

Access to the government procurement market has huge economic significance, because of the vast size of the public procurement market, which on average amounts to around 10-15 per cent of the GDP of a developed country or even higher in many developing countries.

The issue of government procurement is treated under the WTO Plurilateral Agreement on Government Procurement (GPA). There are 14 signatories to the GPA, including Hong Kong China, Republic of Korea, Singapore, and Taiwan Province of China. The GPA sets general rules and obligations, e.g. national treatment given to international suppliers and procedures for tendering for contracts for procurement in goods and services by national and local governments.¹² The Doha Ministerial Declaration included the “transparency” aspect of government procurement in the Doha negotiating agenda, but the idea was abandoned after the WTO Cancún Ministerial Conference in 2003, largely because of opposition by developing countries which feared that negotiations on transparency could easily lead to negotiations on market access in the future.

The arguments of developing countries against the opening up of government procurement markets are closely related to their macroeconomic management needs. Government procurement is considered to be an effective macroeconomic tool, especially at a time of recession, for steering the level of demand in the economy, and for putting into effect a policy of increasing business opportunities for local industries and groups, including those that are economically underrepresented. National treatment of foreign bidders can result in loss of market share for local firms and of foreign exchange (UNCTAD, 2007, TWN, 2008).

The EU and United States FTAs include provisions that are akin to the contents of the GPA. That is, their FTA partners are effectively complying with the GPA without being signatories to the plurilateral agreement. This creates a murky situation: the opening up of the procurement market by a developing-country FTA partner would be enjoyed only by their developed-country FTA partner (the EU or the United States), while the market of the EU or the United States is open to all signatories of the GPA. The trade-off is thus between the potential gains from limiting the access to its procurement market only to selected FTA partners and the potential gains from having access to the procurement markets of all the signatories of the GPA.

¹² “The agreement applies to contracts worth more than specified threshold values. For central government purchases of goods and services, the threshold is SDR 130,000 (some \$185,000 in June 2003). For purchases of goods and services by sub-central government entities the threshold varies but is generally in the region of SDR 200,000. For utilities, the threshold for goods and services is generally in the area of SDR 400,000 and for construction contracts, in general the threshold value is SDR 5,000,000.” Available at http://www.wto.org/english/tratop_e/gproc_e/gp_gpa_e.htm#accession.

Protection of intellectual property rights

With respect to the protection of IPRs, nearly all FTAs involving the EU or the United States contain legally enforceable provisions that oblige the parties to adhere to various treaties or conventions concerning IPRs, e.g. patents, copyrights and trade marks, that are beyond the scope of the TRIPS (Horn et al., 2009). In the future, their FTAs may include adherence to the Anti-Counterfeiting Trade Agreement (ACTA) once it is made enforceable (see Box 2). In the cases of many United States FTAs, almost all parts of the provisions on IPR protection are consistent with United States law. That is, FTAs concluded with the United States could imply a direct imposition upon developing-country FTA partners of their regulatory frameworks for the protection of IPRs.

Box 2. Anti-Counterfeiting Trade Agreement (ACTA)

ACTA is an initiative by a group of largely developed countries (Australia, Canada, the EU and its 27 member states, Japan, Republic of Korea, Mexico, Morocco, New Zealand, Singapore, Switzerland and the United States) aimed at coordinating their regulatory frameworks in order to control the physical as well as digital flow of counterfeit goods. The negotiation started in 2007 and the draft ACTA text was made publicly available in April 2010.

The consolidated draft ACTA text is available at http://www.ustr.gov/webfm_send/1883.

Supporters of ACTA believe the accord will be an effective tool for protecting IPRs (e.g. trade marks, copyrights) and for controlling the flows of counterfeit products, e.g. those that can be harmful to human/animal health or the environment, as well as for controlling the selling of counterfeit products by organized crime groups.

Critics of the initiative state that ACTA, negotiations on which have been conducted by a group of countries behind closed doors, could exacerbate global problems such as access to knowledge, and could marginalize the multilateral World Intellectual Property Organization (WIPO).

Numerous discussions have taken place with respect to the developmental implications of ACTA. See, e.g. IQsensato's article, "The proposed Anti-Counterfeiting Trade Agreement (ACTA): Global policy implications", *In Focus*, volume 2, No. 8, June 2008 (<http://www.iqsensato.org/wp-content/uploads/InFocus%20-ACTA%20-%20Vol%202%20-Issue%208.pdf>).

There is also a risk that IPR-related provisions in FTAs will be more protective of IPR holders in the developing-country partner of an FTA than those in the United States (or the EU). A study by Abbot (2006) points out that, because strict IPR protection raises the cost of goods and services, and could even conflict with consumer rights on health and other types of social welfare, the United States laws on IPR protection rely upon a sophisticated mechanism of checks and balances between the interests of IPR holders and those of consumers. As a result, the United States laws on IPR protection consist of regulations, as well as the exceptions to those regulations, in order to take into account consumer rights and interests. On the other hand, most developing countries lack such an institutional mechanism of checks and balances. As a result, the new legal provisions for IPR protection in the developing-country partner of an FTA could end up being more favourable to IPR holders than to consumers in their own countries.

5. Policy questions concerning today's regionalism and its implication to development

There is no doubt that a bilateral FTA with a developed-economy partner(s) provides developing countries with ample opportunities to promote investment and export. As discussed above, however, the coverage and the contents of a North-South FTA are very often dominated by the developed-country partner's agenda and interests. Ideally, when assessing the potential economic and social benefits and costs of entering into a North-South FTA, developing countries should take into account not only the potential impact on exports and imports arising from market opening, and possible increases in FDI, but also the impact of these agreements on their ability to use alternative policy options and instruments in the pursuit of a longer term developing strategy (UNCTAD, 2007). But in practice, prospects of business opportunities in a sizable market would prevail over a longer-term development interests. Moreover, the negotiating balance-of-power in a North-South bilateral FTA is, unlike in multilateral trade negotiations, almost definitely on the side of developed-country partner. The current trend of trade rulemaking outside the WTO framework calls for in-depth strategic policy analysis concerning its development impact.

Can we design a development-friendly FTA?

Can a FTA be a useful framework for enhancing cooperation in areas where there is strong public demand (World Bank, 2005), such as trade facilitation (including harmonization or mutual recognition of SPS and TBT standards), and transferring technology and institutional knowledge?

In Asia, the idea of "deeper integration" to maximize the benefit of FTAs is very much emphasized by policymakers and scholars. As the East Asian economies are already intertwined with various business and production networks, the main objective of deeper integration is to improve economic efficiency (e.g. reducing business transaction costs) by harmonizing the regulatory framework encouraging rationalization (or harmonization) of the rules of origins (ROOs) and upgrading ROOs administration to best practice levels; and encouraging the inclusion of WTO-plus and WTO-extra provisions, particularly the Singapore issues, in all future Asian FTAs. A number of scholars suggest that the ultimate goal for East Asian countries would be to create a region-wide single East Asian FTA (see, e.g. Kawai and Wignaraja, 2009).

But a close integration of the businesses alone would not automatically lead to a balanced economic integration among neighbouring countries. In whichever a FTA set up, there would always be a gap, sometimes a huge one, in economic and developmental capacity between/among FTA partners. As discussed above, transposition of the regulatory framework of a more developed country on its partners within an FTA framework is not constructive, unless there is tangible and unbiased support provided to partner countries with weaker economies.

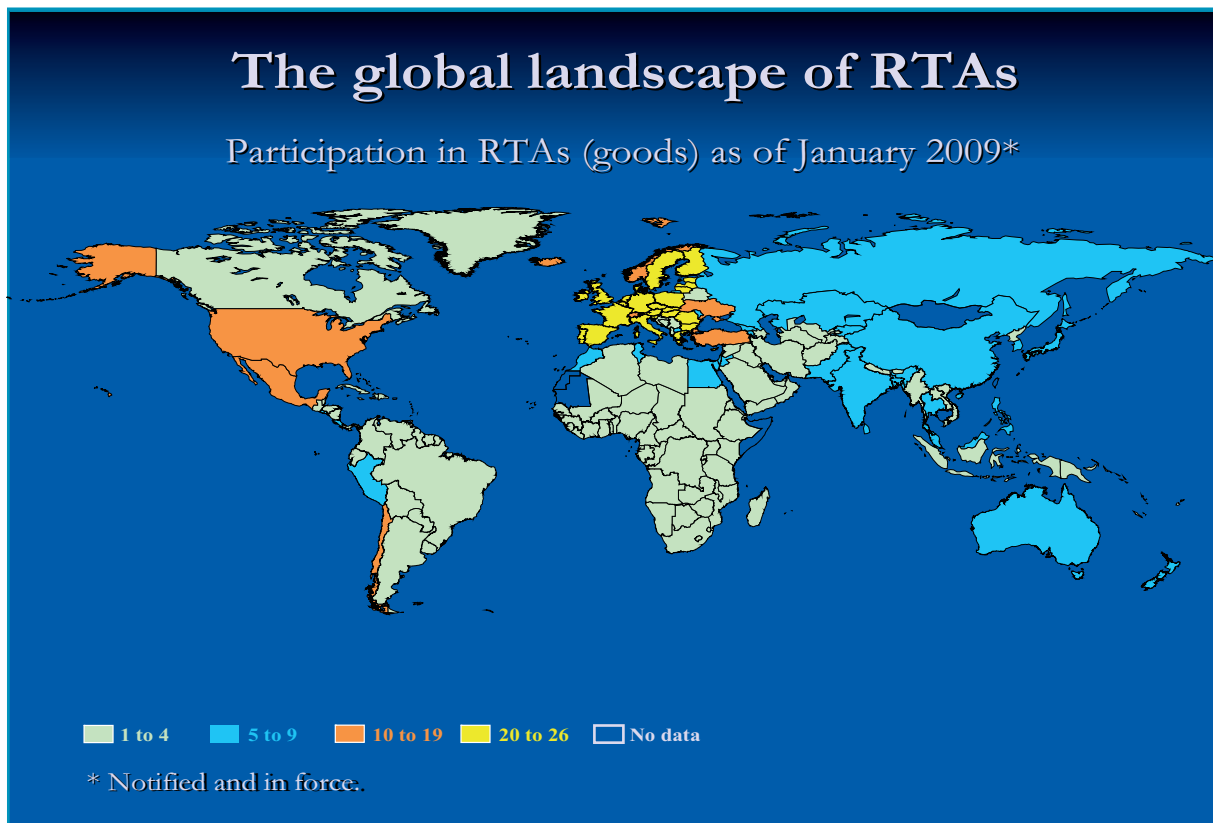
What about developing countries outside the current wave of free trade agreements?

The wave of FTAs in the past decades is not, strictly speaking, a global phenomenon. The EU, the United States and Asian countries dominate the new FTAs that are being concluded or negotiated (see Figure II-1). One region which has not been on this wave is sub-Saharan Africa (SSA). Among 20 FTAs that are in force in Africa, more than half relate to Mediterranean North African countries. As for sub-Saharan Africa, there are currently only four bilateral FTAs, all of them with Europe (EU or EFTA) (see Table II-4). The chief reason for the relatively low number of FTAs in SSA countries may be the small size of their economies and markets, and therefore limited ability to attract other economies; the overall level of development; and possibly the fact that their political systems may lead to them being considered unstable as potential FTA partners (Scollay).

The number of FTAs in sub-Saharan Africa will go up in the future, once the ongoing negotiations on Economic Partnership Agreements with the EU have been concluded.¹³ There have been also talks on possible bilateral FTAs between the United States and Southern Africa Customs Union (SACU) countries and an economic partnership between Japan and the Republic of South Africa.¹⁴ Whether these trends would lead to an increased integration of SSA to international trade, however, remains uncertain. One thing that is certain is that the proliferation of FTAs in other parts of the world would further marginalize the SSA countries from global production networks, and would encourage them to remain as chief suppliers of fuels, metals and other strategic commodities. Still, there has been surprisingly little analysis on this matter, and further studies are encouraged.

One way around such a pitfall for SSA countries could be a successful conclusion of the Doha Round. SSA countries should become the movers and shakers in the Doha Round, since prolongation of its current moribund state could be most damaging to small and vulnerable countries of sub-Saharan Africa.

Figure II-1. Geographical concentration of FTAs



Source: WTO, "Regional Trade Agreements and WTO" (<http://vi.unctad.org/russiast09/docs/fiorentinortas.ppt>)

¹³ See the European Commission website on economic partnerships for more details on ongoing and concluded EPAs with African countries (http://ec.europa.eu/trade/wider-agenda/development/economic-partnerships/negotiations/#_west-africa).

¹⁴ The United States has concluded agreements on trade and investment with the five members of the Southern Africa Customs Union (SACU) which could be a stepping stone towards a future FTA. Japan is considering ways of strengthening its economic partnership with South Africa.

Table II-4. FTAs in force in Africa (those reported to the WTO as of January 2009)

	North Africa	Sub-Saharan Africa
Total No.	11	9
EU	4 (Algeria, Egypt, Morocco, Tunisia)	3 (Cameroon, Côte d'Ivoire, South Africa)*
United States	1 (Morocco)	
EFTA	3 (Egypt, Morocco, Tunisia)	
	1 (SACU)	
Other	3 (Turkey-Egypt, Turkey-Morocco, Turkey-Tunisia)	
Regional		7 (CEMAC, COMESA, EAC, ECOWAS, SACU, SADC, WAEMU)

Source: WTO RTAs database.

CEMAC: Economic and Monetary Community of Central Africa; COMESA: Common Market for Eastern and Southern Africa; EAC: East African Community; ECOWAS: Economic Community of Western African States; SACU: Southern African Customs Union; SADC: Southern African Development Community; WAEMU: West African Economic and Monetary Union.

* An interim economic partnership agreement (EPA) has been concluded with Botswana, Lesotho, Mozambique, Namibia and Swaziland, which have been negotiating as the SADC EPA group. It was signed by Botswana, Lesotho, Mozambique and Swaziland in June 2009, with Namibia still pending.

Should we “multilateralize” FTAs?

Numerous studies have been made on “multilateralizing regionalism”.¹⁵ Multilateralization is generally defined as “the non-discriminatory expansion of preferential trading arrangements to additional trading partners ... either by inclusion of new members in existing arrangements, or by replacing existing arrangements with new ones that extend to new members” (Baldwin and Law, 2008). Multilateralization may also imply taking certain elements of the content of some FTAs, especially WTO-plus and WTO-extra provisions, as the basis for new multilateral rules under the WTO. If, however, transposing FTA rules to WTO is allowed, the cost would be borne mainly by countries that are not party to any economically significant FTAs.

In May 2010, the Secretary-General of UNCTAD noted: “In looking beyond Doha, some are putting forward the case of variable geometry and plurilateral agreements as a way by which countries that are ready to undertake commitments can proceed, with others joining in when they are ready. This is certainly one way of moving ahead. But its implications for developing countries and the MFN principle of non-discrimination will need to be seriously considered.”¹⁶

The WTO has one great strength vis-à-vis FTAs, which is its sophisticated and unbiased mechanism for trade dispute settlement. Ideally, the WTO rules should provide an overarching regulatory framework for all types of international trade agreements, within which specific rules can be made for FTAs and other preferential agreements, according to the needs of the parties and their economic operators.¹⁷ But the current progress of the Doha Round suggests such prospect is beyond reach at least for some years to come.

¹⁵ See, e.g., the WTO site on its Conference on Multilateralising Regionalism for some of the principle research undertaken in this area (http://www.wto.org/english/tratop_e/region_e/conference_sept07_e.htm).

¹⁶ Opening statement by the Secretary-General of UNCTAD at the second session of the Trade and Development Commission available at <http://www.unctad.org/Templates/webflyer.asp?docid=13184&intItemID=3549&lang=1>.

¹⁷ In the Doha Round, the situation with the WTO rules on FTAs was characterized as follows: “The situation at present is that while we have a growing spaghetti bowl of regional trade agreements, some more comprehensive than others, and a well functioning mechanism to promote transparency and our understanding of these RTAs, we are not making much progress in the substantive part of our work to define WTO rules on RTAs (emphasis added). The problem, it would seem is that we are trying to negotiate rules on RTAs, without a complete understanding of the market access pursued by RTAs and implications of RTAs on the parties and multilateral trade.” Communication from the Chair of the Negotiating Group on Rules on the situation of the RTA negotiations (TN/RL/25, 6 May 2010).

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CHAPTER III

NEW BUSINESS OPPORTUNITIES IN THE ENVIRONMENTAL MARKET¹

1. Global environmental market

(1.1) Efforts for market expansion and future growth strategies

In response to the global economic crisis triggered by the “Lehman Brothers shock,” many countries have taken proactive economic measures to stimulate demand and promote industry. In particular, the “environmental sector” is receiving much attention as a potential source of growth. A large number of countries are intensively injecting financial resources into this sector, which generally covers activities such as pollution control, improvement in energy efficiency, renewal energy production, and reduction in carbon emission.

Of the ¥15.4 trillion (approximately US\$165 billion) economic stimulus package prepared by the Japanese Government in April 2009, 10 per cent or ¥1.6 trillion has been allocated to environmental measures. In the United States, President Obama announced a \$150 billion 10-year renewable energy initiative to create 5 million new jobs. In China, 5.3 per cent of its 4 trillion yuan (approximately US\$585 million) economic stimulus package has been secured for the environment-related budget. European countries have also taken measures to support switching to low-emission vehicles. The growth of environmental business on a global scale is incontestable, and will create huge international business opportunities.

¹ This chapter was prepared by the Japan External Trade Organization (JETRO).

(1.2) Renewable energy and low carbon sectors driving the global environmental market

■ Expansion of the global environmental market

Public awareness of global warming is growing. It is believed that a massive increase in the volume of greenhouse gases such as CO² have contributed to an increase in temperature. A reduction in CO² has thus been a major goal of environmental measures. Until now, “traditional” environmental measures have been targeted at reducing air and maritime pollution, purification of soil and water quality, waste and wastewater management and recycling of water and resources. In addition to these, potential environmental business in the future will include sectors that deal directly with CO² reduction.

One key sector in relation to CO² reduction is renewable energy. Major business areas include photovoltaic (PV) power generation, i.e. conversion of solar radiation into direct current electricity, as well as power generation from hydro, wind, geothermal, tidal energy and biomass sources. Unlike exhaustible resources, renewable resources are CO² free and could supply energy for a virtually infinite period of time.²

At the same time, a number of low-carbon products (i.e. with reduced CO² emissions) are emerging as new environmental businesses. These include bioethanol and hydrogen for automobiles, hybrid and electric vehicles, energy-conserving technologies (e.g. inverter air-conditioners), eco-materials (e.g. bioplastics), eco-houses fitted with insulation, carbon capture and storage devices, and carbon finance.

Thus, when considering the global environmental business, there are three major business categories: (i) the traditional environmental sector; (ii) the renewable energy sector; and (iii) the low-carbon sector. The conventional method of calculating the size of the environmental market included only the traditional environmental sector. Today, the renewable energy sector has been added to it, reflecting increasing understanding of the actual circumstances of the environmental market.

In March 2009, the Department for Business Enterprise and Regulatory Reform (BERR) of the United Kingdom released a report entitled “Low Carbon and Environmental Goods and Services: an industry analysis”. The report defines the global environmental market as being composed of traditional environmental activities, renewable energy technologies and low-carbon activities.³

BERR estimated the value of the global environmental market at £3.046 trillion in 2007/08, which is considerably larger than other estimates, as the BERR definition includes the procurement of materials and parts in the supply chain.⁴ Given that global GDP was \$50 to \$60 trillion in 2007, the BERR estimate of the global environmental market accounts for roughly 10 per cent, which is quite significant. With respect to its growth potential, BERR estimated the value of the global environmental in 2014/2015 at £4.417 trillion, an increase of 45 per cent in seven years. The BERR method of estimation is a sound attempt to understand the global environmental market. However, it still seems necessary to

² Biomass energy is produced from inputs such as paper, raw garbage and thinned wood. Since these originate from photovoltaic energy captured by plants, they are classified as an area of renewable energy. Biomass energy is produced by burning carbons captured by plants and thus is carbon neutral without an increase in CO².

³ The report is available at <http://www.berr.gov.uk/files/file50253.pdf>. The definition of the environmental business market is listed in appendix 1, pp.101-103.

⁴ The BERR method of calculation of the environmental market uses “bottom-up” data, i.e. the sales activities of industries and companies, and classifies the data into the 2490 minimum classification sectors based on the statistics of international organizations, universities and research institutes. These sectors are then “bottomed up” into minor, sub-major and major classifications. This method of bottom-up calculation requires great accuracy to avoid double counting.

develop even more accurate and reliable data by refining the definition of environmental business and the method of estimation.

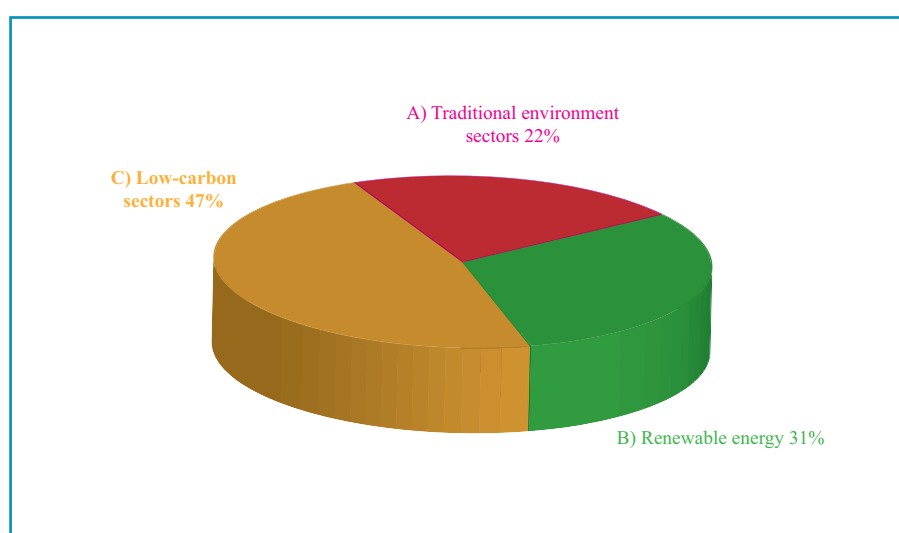
Table III-1. Global environmental business market size

Organization	Environmental-Business Market Size
UK Department for Business, Enterprise and Regulatory Reform (BERR), announced March 2009	FY2007-08 environmental-business market size of £3.5 trillion (¥605 trillion at £1=¥198 [March 2008 exchange rate]). 45% growth to £4.4 trillion in FY 2014-15.
German Federal Ministry for the Environment, November 2007	2005 global environmental-business market size of 1 trillion euros (¥137 trillion at 2005 average conversion rate of 1 euro=¥136.89). Average annual growth rate of 5.4% to 2.2 trillion euros in 2020.
European Commission	Environmental-business market size of 270 billion euros (¥36.5 trillion) in 2006, employing 2.3 million people.
Environmental Business International (US)	According to the "2008 White Paper on the Environment," the EBI's estimate of the global environmental-business market size was \$692 billion in 2006 (¥80.5 trillion at 2006 average exchange rate of \$1=¥116.31). According to "Report 2020," published by EBI, the size of the market would expand 22.3 % in six years from \$628.6 billion in 2004 to \$768.7 billion in 2010.
Japan Ministry of the Environment ("2008 White Paper on the Environment")	Japan's environmental-business market expanded from ¥30 trillion in 2000 to ¥45 trillion in 2006.

Source: Compiled from various sources.

According to the BERR estimate, the largest share of the total environmental market is taken by the low-carbon sector (48 per cent or £1.4 trillion), followed by the renewable energy sector (31 per cent or £940 billion) and the traditional environmental industry (22 per cent or £657 billion) (see Figure III-1 below).

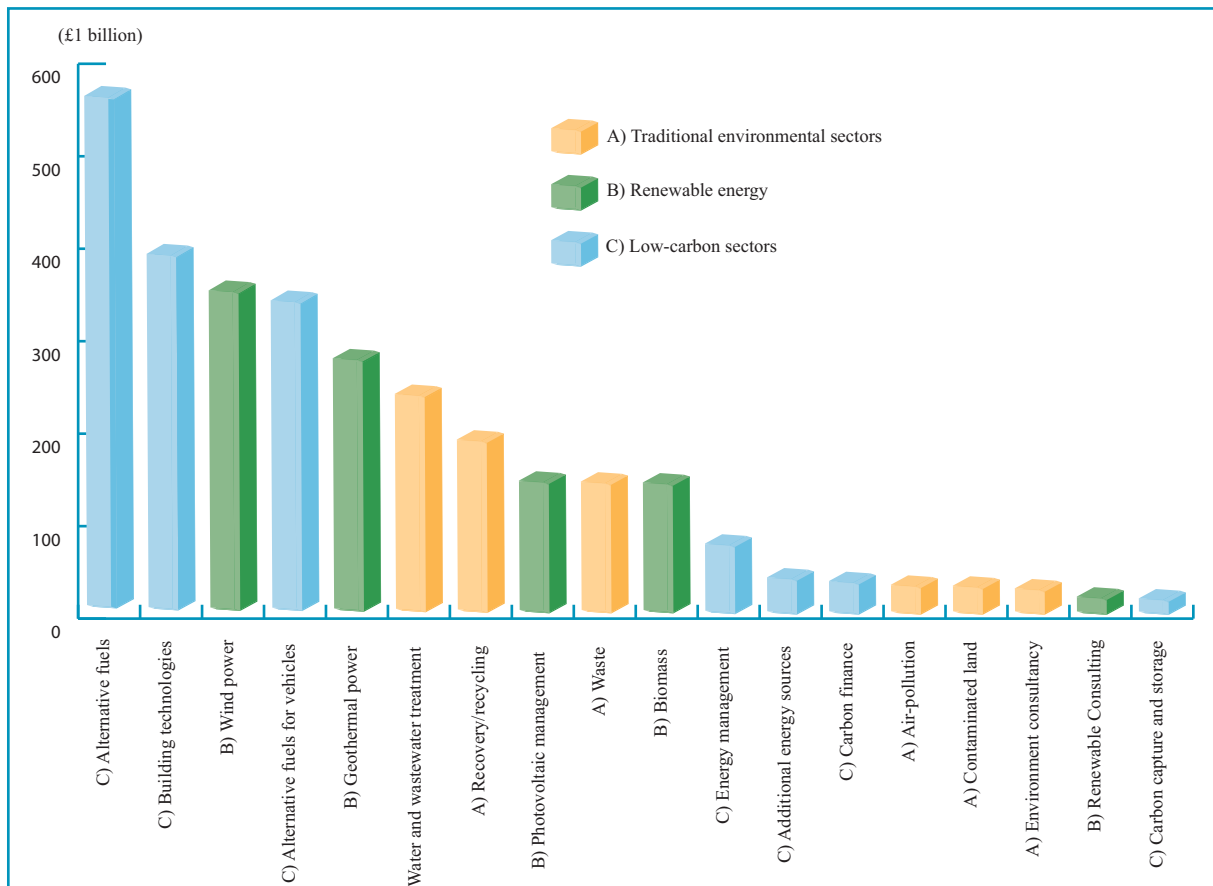
Figure III-1. World environmental business market size (£3.46 trillion - approx. ¥605 trillion - in FY2007-08)



Source: Prepared based on material from the UK Department of Business, Enterprise and Regulatory and Reform (BERR).

When market size is compared across different subsectors, the largest is alternative fuels, accounting for 19 per cent of the total, followed by eco-building technologies (13 per cent), both of which are classified under the low-carbon sector (see Figure III-2 below). Alternative fuels for vehicles, also classified in the same sector, are listed in fourth position (11 per cent). In the renewable energy sector, wind power generation devices/services are ranked third (12 per cent), geothermal generation devices/services are in fifth place (9 per cent), PV power generation in eighth place (4.7 per cent) and biomass in tenth place (4.6 per cent). In the traditional environmental sector, water/wastewater treatment is listed in sixth place (8 per cent), recovery and recycling in seventh place (6 per cent) and waste management in ninth place (5 per cent).

Figure III-2. Global environmental business market size, by sector (FY 2007-08)



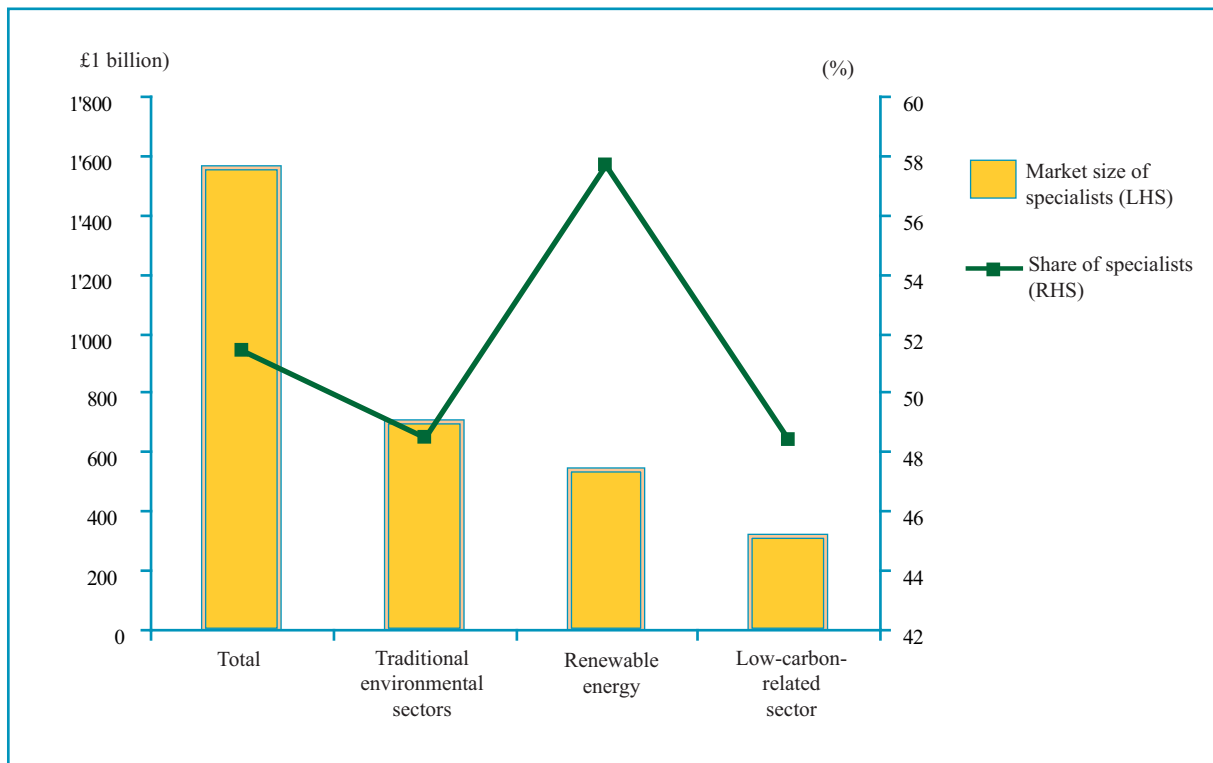
Source: Prepared based on material from the UK Department of Business, Enterprise and Regulatory and Reform (BERR).

In summary, alternative fuels such as biofuels, batteries and nuclear energy represent a high proportion of the environmental market, while the eco-building market has grown to be the second largest market. With respect to renewable energy, PV power generation has attracted much attention, but in reality the market for wind power generation is 2.5 times larger than PV power generation and is expected to grow even more in future. Geothermal power generation is also larger, nearly twice the market size of PV generation. In the traditional environmental sector, the market sizes of water/wastewater treatment, recovery and recycling and waste management are large. In 2007/2008, the market sizes of these processes were estimated to be greater than that of PV generation.

The BERR estimate of the environmental market includes the supply chain, which provides materials and parts to companies specializing in environmental business. For the calculation of the

environmental market, BERR separates the specialist (i.e. those that are specialized in the environmental business) and the supply chain market. The market share of the specialists in the overall environmental business is 52 per cent (see Figure III-3 below). Across different sectors, the specialists claim 48 per cent market share in the traditional environmental industry, 58 per cent in the renewable energy sector and 49 per cent in the low-carbon sector. BERR also estimates the proportion of manufacturing activities to be 32 per cent of the global environmental market.

Figure III-3. Specialist environmental business market size (2007/2008)

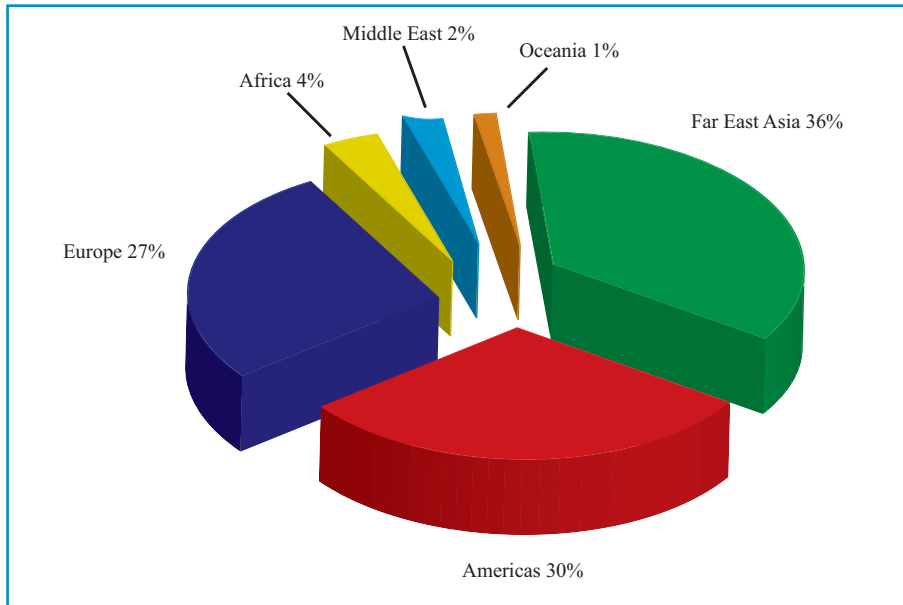


Source: Prepared based on material from the UK Department of Business, Enterprise and Regulatory and Reform (BERR).

In terms of the geographical distribution of the market, BERR estimates that Asia and the Far East claim the largest share with 36 per cent, followed by North and Central/South America with 30 per cent, Europe with 27 per cent, Africa with 4 per cent, the Middle East with 2 per cent, and Oceania with 1 per cent.

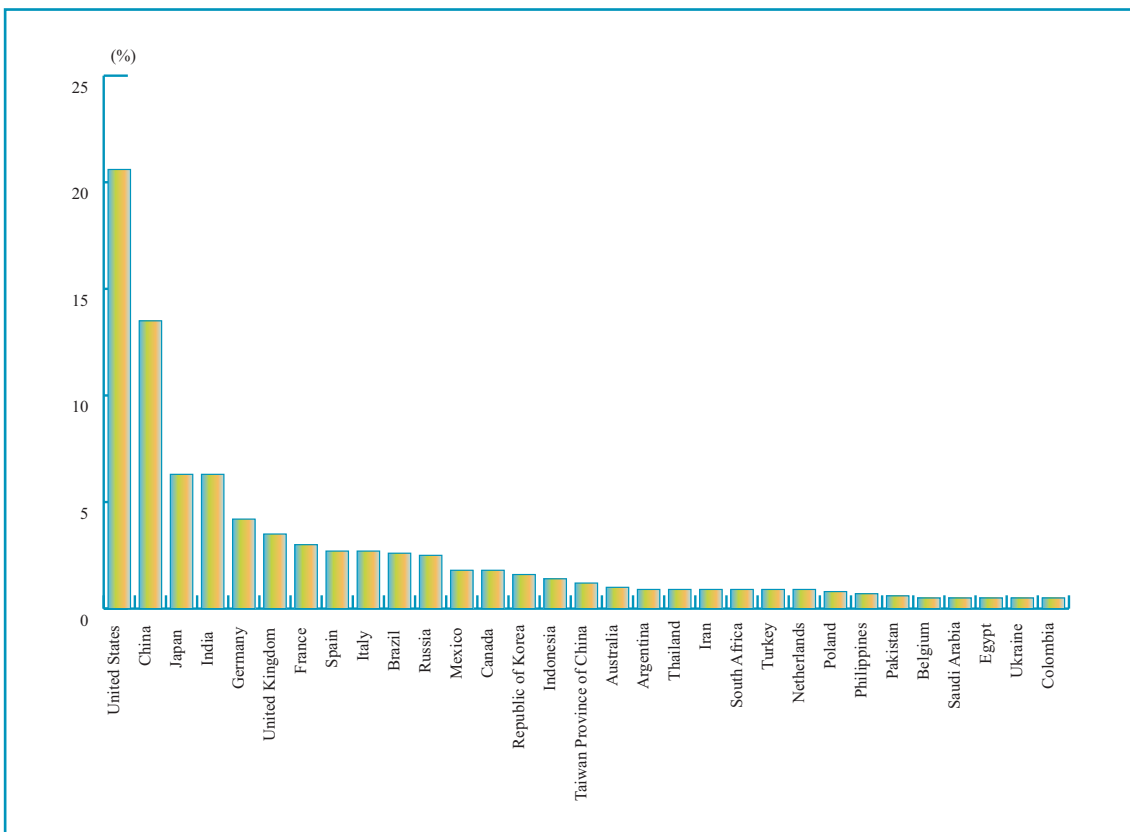
In terms of individual countries, the United States has the largest share with £629 billion, accounting for 21 per cent, followed by China with £411 billion (14 per cent), Japan £191 billion (6 per cent), India £191 billion (6 per cent), and Germany £128 billion (4 per cent). The top four countries account for almost half of the total (47 per cent), and the top 17 countries for about 80 per cent of the value of the global market.

Figure III-4. Environmental market share by region (FY2007-08)



Source: Prepared based on material from the UK Department of Business, Enterprise and Regulatory and Reform (BERR).

Figure III-5. Environmental business market share by country (FY 2007-08)



Source: Prepared based on material from the UK Department of Business, Enterprise and Regulatory and Reform (BERR).

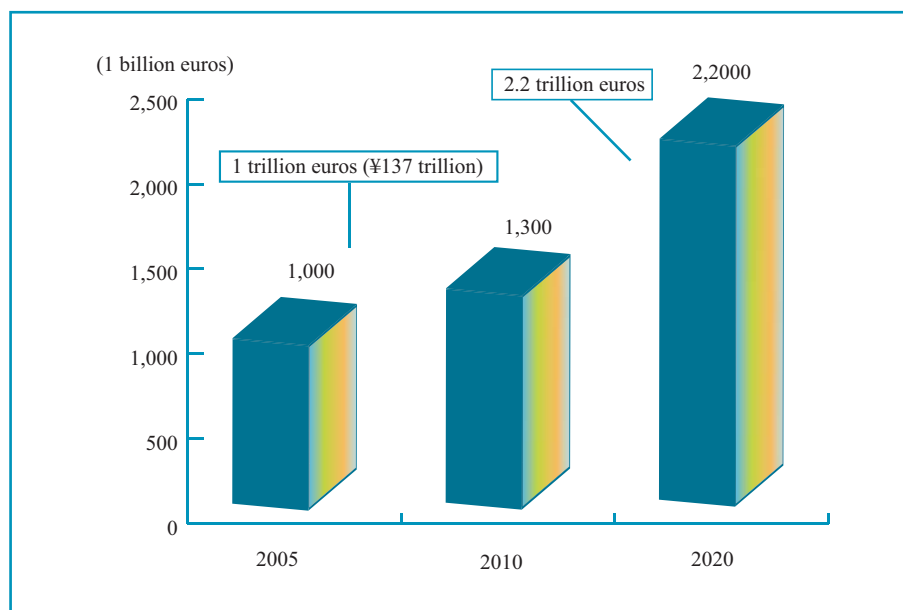
The sectors with high growth potential identified by BERR include wind power generation, PV generation, carbon finance, alternative fuels, including automobiles, geothermal generation, biomass, and eco-building technologies. Japan, the United States and European countries have equal levels of environmental technologies and are considering expansion of these prospective sectors into China and India. China has also been expanding its business in wind power and PV generation, aiming for a presence in the global market, and the competition with Europe, Japan and the United States is expected to become fierce.⁵

The renewable energy and low-carbon sectors are expected to grow faster than the traditional environmental sector. Biofuel technology, such as bioethanol, has entered the mainstream in some developing countries. Since the environmental business is the most promising sector for the future, the role of government will be crucial. Therefore, an accurate understanding of the measures and policies of major countries will be key to leading expansion in the global environmental market.

■ High expectations of political instruments in the environmental market

In November 2007, the German Federal Environment Agency issued a report entitled “Innovative Environmental Growth Markets from a Company Perspective”, which estimated the global environmental market to be worth around €1 trillion in 2005. The report also predicted that the global market would continue to grow over the coming years and, by 2020, that total market value would reach €2.2 trillion with an average annual growth rate of 5 per cent. This estimate of the size of the global market is lower than the BERR estimate. The gap between the two seems to be due to different estimates of the capture rate of the supply chain and in the coverage of the low-carbon sector, for instance in alternative fuels.

Figure III-6. Global environmental business market 2005

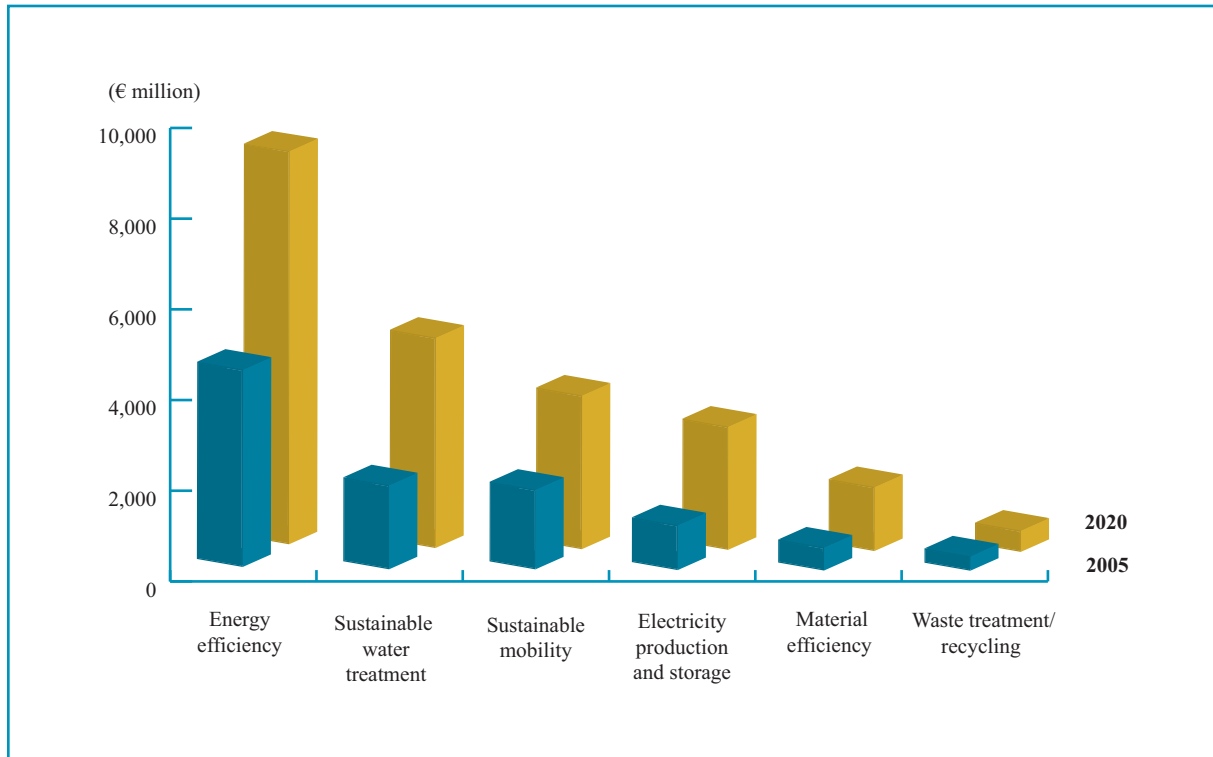


Source: Prepared based on material from the German Federal Ministry for the Environment.

⁵ For more detail on China's wind energy production, see also Dong Wu, “Powering the green leap forward: China's Wind Energy Sector”, pp. 173-177, UNCTAD Trade and Environment Review 2009/2010.

The German Federal Environmental Agency classifies the global environmental market into six categories (see Figure III-7 below).

Figure III-7. Global environmental market by sector



Source: Compiled based on innovative environment growth markets from a company perspective, The German Federal Environment Agency.

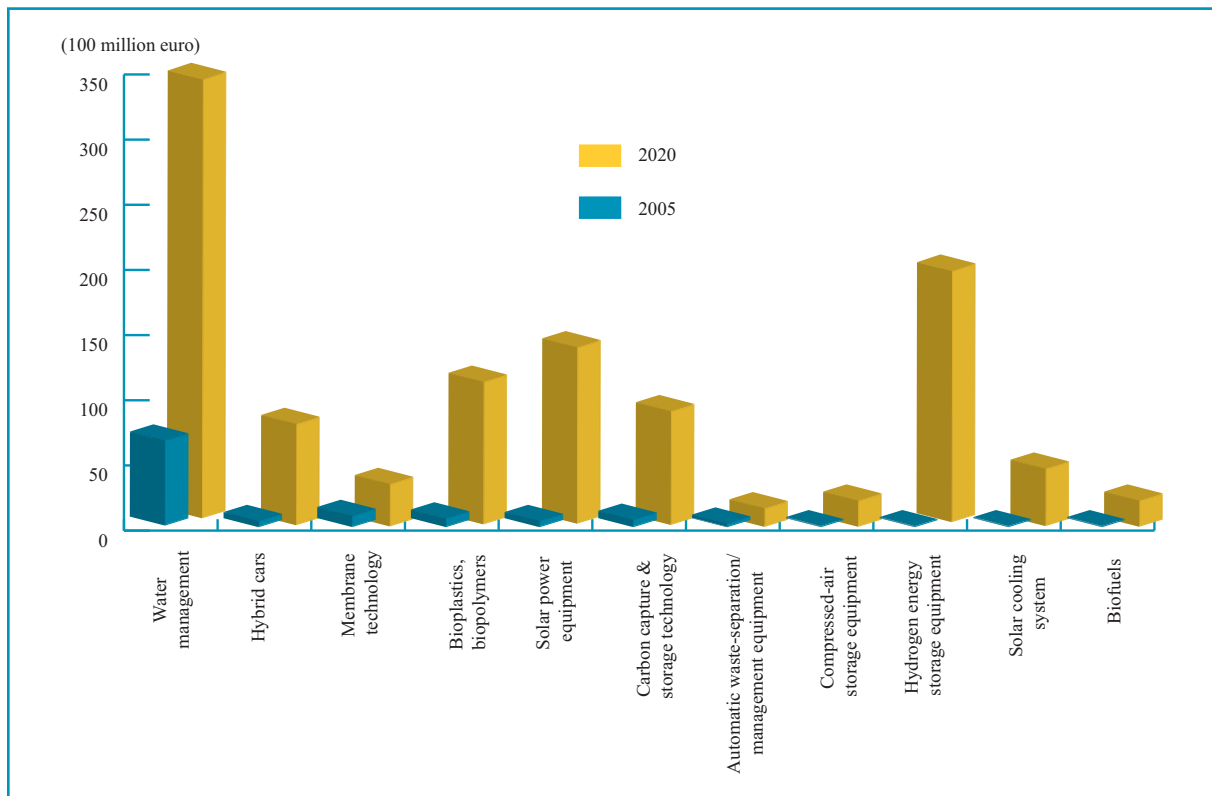
The largest sector is energy efficiency, which was valued at €450 billion in 2005 and is expected to double to €900 billion by 2020. This sector comprises several subsectors such as energy-saving home appliances, solar cooling systems, heat insulation materials and measuring instruments.

The second largest market is sustainable water management, which reached €190 billion in 2005 and is expected to reach €480 billion by 2020. This consists of water supply, wastewater treatment and water control. The growth potential of this sector is high, since investment in water-related infrastructure in developing countries is expected to grow strongly. The third largest market is sustainable mobility, which is expected to grow from €180 billion in 2005 to €350 billion in 2020. The main elements of this sector are biodiesel and related equipment, hybrid vehicles, and advanced traffic management systems. The number of hybrid vehicles sold is projected to reach 8 million units in 2020.

The fourth largest sector is power generation and storage, which includes renewable energy, and is forecast to increase from €100 billion to €280 billion over the same period. The fifth largest market is material efficiency, with an estimated size of €50 billion as of 2005. The bioplastics market was worth only €600 million in 2005 but is expected to expand rapidly to €1.3 billion by 2020. The sixth largest market is waste management and recycling, which is expected to grow from €30 billion to €46 billion by 2020. The installation of automatic separation of materials is not making progress on a global scale, but this market is expected to grow from about €200 million in 2005 to €1.4 billion by 2020.

The German Federal Environmental Agency reports that the product and service sectors with the highest growth potential include water management; PV power devices; hybrid vehicles; solar cooling systems; automatic separation of materials; carbon capture and storage technology; effective storage of electrical energy using compressed air and hydrogen; bioplastics and biopolymers; membrane technology; and biofuels (see Figure III-8 below).

Figure III-8. Environmental business sectors forecast to grow worldwide



Source: Prepared based on material from the German Federal Ministry for the Environment.

The report also sets out the view of the German private sector on the role of government in the environmental business. Companies expressed their views, via surveys, that supportive measures from government are crucial to boosting the growth of the environmental market. They suggest that measures such as the setting of environmental targets, preferential treatment in public procurement, and support to commercialization of new products, would stimulate technological innovation, as well as demand for environmental products.

The report suggests a list of policy measures that would enlarge the environmental market, such as the provision of financial incentives for buying hybrid vehicles; public information campaigns on environmental products; and setting the technical innovation level of the best-performing companies as the new standard for industry (such as in the case of Japan's Top Runner Program).

In addition, the report calls for training a skilled workforce; support for research and development by SMEs; and expansion of access to financial resources. The report also stresses the importance of long-term subsidy programmes lasting 10 or 20 years to support investment in technologies linked to PV power generation, wind power generation, alternative fuels and compressed air storage.

(1.3) Sizes and characteristics of global environmental markets

■ Accelerating growth of the renewable energy market in the United States

In the United States, there is no official data that comprehensively covers the current state of the low-carbon sector, e.g. alternative fuels, hybrid/electric vehicles, and carbon capture and storage (CCS). In fact, there are not many countries which release data on the environmental market with reference to the renewable energy and low-carbon sectors. This lack of information, even in Europe and the United States, where standardization is a matter of daily practice, demonstrates the fact that they still primarily regard the environmental market as referring to the traditional environmental sector, such as water management, waste treatment and air pollution.

The renewable energy and low-carbon sectors have attracted much attention since the financial crisis, and their market size has already exceeded that of traditional environmental activities. However, the data on individual countries, including the United States, does not adequately reflect this situation. This indicates the necessity to establish common statistics that reflect the actual status of the global environmental market.

A United States magazine, Environmental Business Journal (EBJ), classifies the environmental market into three categories (i) pollution control services, (ii) pollution control devices, and (iii) effective utilization of resources. The first two categories are derived from the traditional pollution control sector. In the last one, the renewable energy sector is added to the traditional sector of water/resources reuse. In short, the EBJ definition of the environmental market does not consider business associated with alternative fuels, such as biofuels, hybrid/electric vehicles, or carbon finance.

EBJ estimates the value of the United States environmental market in 2007 at US\$ 302 billion and forecasts it will reach US\$ 349 billion by 2010 (see Table III-2 below). Pollution control services and devices account for 47 per cent and 21 per cent respectively, amounting to nearly 70 per cent of the total market. Effective resources utilization, including renewable energy, accounts for only 32 per cent.

The market for pollution control services grew by 15 times during the period between 1970 and 2000, which significantly exceeded the eightfold GDP growth in the United States in the same period. Within pollution control services, waste treatment services, wastewater treatment services and consultancy/engineering account for a high proportion, which reveals the strengths of the United States in the service industry. On the other hand, growth in the market for pollution control devices was rather sluggish.

Pollution control services are estimated to grow by 52 per cent and pollution control devices by 30 per cent between 2000 and 2010. After 2010, the renewable energy market in the United States is forecast to grow continuously and rapidly, supported by measures in the post-crisis economic stimulus package. Needless to say, the low-carbon market is also expected to grow dramatically, being positively affected by the renewable energy market.

The effective use of resources, which is the third element in the United States environmental business market, is expected to grow rapidly: in 2007 it registered an increase of 14 per cent over the previous year. Of the effective use of resources, the proportion of water reuse was 39 per cent, resources reuse 32 per cent and renewable energy 29 per cent. Water reuse is an attempt to reuse the water generated through production processes, etc. and resources reuse refers to the capture and recycling of non-toxic chemical and industrial/corporate waste materials. These businesses have gained momentum along with increased consumer awareness.

Table III-2. Sales, number of corporations and number of employees in the environmental market in the United States

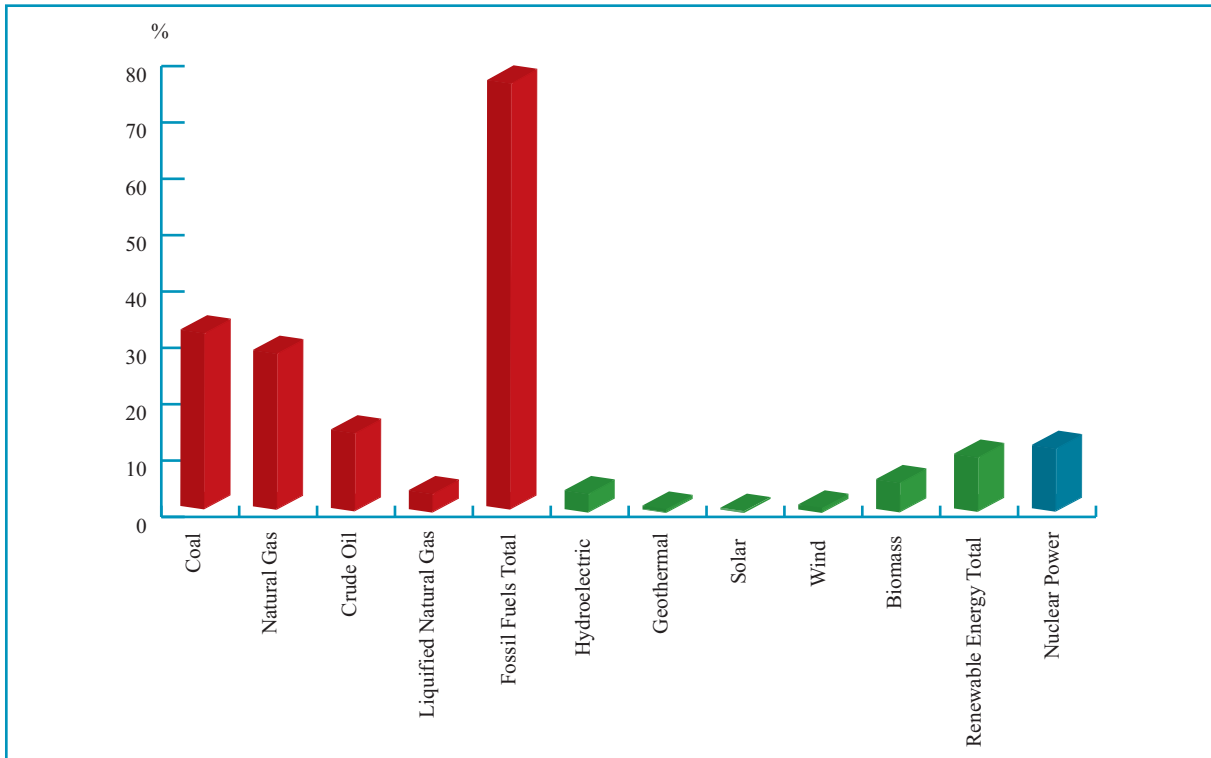
	2007 Market size (\$1 billion)	2007 Share	2005 Share	2007 Number of corporations	2007 Number of employees (people)
a. Pollution management service	141.02	46.6%	47.9%	43 790	852 100
Analysis	1.89	0.6%	0.7%	1 080	20 500
Wastewater treatment	39.06	12.9%	13.4%	26 200	152 600
Waste treatment service	53.2	17.6%	18.1%	10 050	280 700
Harmful waste treatment	9.08	3.0%	3.2%	630	45 600
Disposal of contaminated substances	12.18	4.0%	4.1%	2 220	104 100
Consulting/engineering	25.61	8.5%	8.4%	3 610	248 600
b. Pollution control device	63.89	21.1%	22.6%	6 080	430 200
Water treatment equipment/agents	27.29	9.0%	9.4%	2 080	164 400
Measurement/information system equipment	5.49	1.8%	1.8%	840	39 200
Air pollution control equipment	18.31	6.1%	7.0%	1 900	118 900
Waste treatment equipment	11.00	3.6%	3.8%	920	76 700
Pollution control production technology	1.80	0.6%	0.6%	340	31 000
c. Efficient use of resources	97.42	32.2%	29.5%	68 480	485 000
Water reuse	37.89	12.5%	13.3%	61 800	153 700
Resource reuse	31.23	10.3%	7.9%	5 050	213 900
Renewable energy	28.30	9.3%	8.4%	1 630	117 400
Total	302.30	100.0%	100.0%	118 350	1 767 300

Source: Compiled based on "The U.S. Environmental Industry Overview 2009," Environmental Business Journal

As regards renewable energy, it is reported that environment-related venture capital has directed 75 per cent of its total investment into the renewable energy sector in recent years. In confirmation of this, the renewable energy market has shown steep growth since 2000 and is projected to double by 2010. The overall growth rate of renewable energy consumption between 2004 and 2007 was 11 per cent, during which time wind power generation grew by 177 per cent, biomass power generation by 28 per cent (of which biofuels increased by 146 per cent), and PV power generation by 25 per cent.

Of all energy production in the United States in 2008, fossil fuels accounted for 78.6 per cent, followed by nuclear energy with 11.5 per cent. Renewable energy production of all types accounted for the remaining 9.9 per cent (see Figure III-9 below). Within fossil fuels, coal and natural gas together accounted for more than 60 per cent. Within renewable energy production, biomass power generation accounted for 53 per cent, hydroelectric for 34 per cent, geothermal for 5 per cent, wind power for 7 per cent, and solar power for 1 per cent.

Figure III-9. Renewable energy share of total United States energy production (2008)



Source: Prepared based on material from the US Office of Environmental Information.

According to the National Renewable Energy Laboratory (NREL) of the United States Department of Energy, 27 per cent of new wind power plants constructed in 2007 worldwide were in the United States. China was ranked in second place, followed by Spain, India, Germany and France. With respect to cumulative installed PV capacity, Renewable Energy Network 21 estimates that Germany, Spain and Japan were the top three countries as of the end of 2008. As for new installations, in 2008 Spain was ranked in first place and the United States third, following Germany. Japan surrendered the top spot to Germany in 2004, and ranked fourth in 2008.

According to the United States Energy Information Administration (EIA), the United States was the largest generator of geothermal power in 2008, accounting for 30 per cent of the world total. In second place was the Philippines, with India third and Japan fourth. All are volcanic countries. Geothermal generation plants in the United States are located in the western states, such as California and Nevada, as well as in Hawaii and Alaska. Thirty-three geothermal power plants in California account for 86 per cent of domestically produced geothermal power. In the Philippines, geothermal power generation accounts for 20 per cent of total domestic power production.

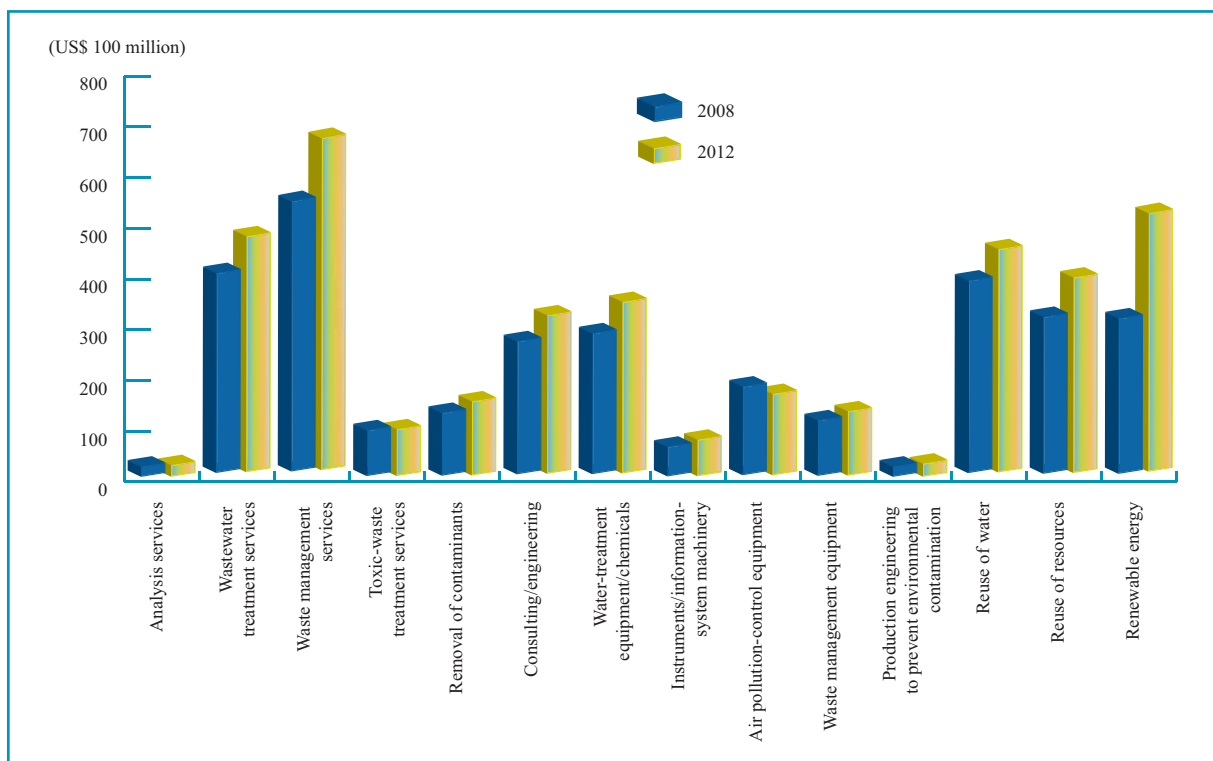
The geothermal resources of the United States demonstrate its abundant energy potential, estimated at 750,000 years of total primary energy supply for the entire nation. The cost of geothermal power generation has declined by 25 per cent in the last 20 years due to technology innovation and an increase in demand for geothermal power. The retail price of electricity from geothermal power is US\$ 0.05/kilowatt, considerably cheaper than that of PV power at US\$ 0.25 and almost the same as wind power at US\$ 0.04.

EBJ estimates indicate that the most promising sector in the United States environmental market is renewable energy, with an estimated growth of 66 per cent between 2008 and 2012 (see Figure III-10

below). This is followed by production technology for pollution prevention estimated to grow by 30 per cent, and waste treatment services by 23 per cent. On the other hand, the market for air pollution control devices will decline by 9 per cent and for toxic material treatment services by 2 per cent.

In 2008, 73 per cent of total venture capital funds in the field of renewable energy were injected into the PV sector, followed by 22 per cent into biofuels. On the other hand, the percentage of funds going into wind power declined dramatically to 2 per cent and geothermal and hydropower received less than 1 per cent.

Figure III-10. Change in United States environmental business sales by sector (2008-2012)



Source: Environmental Business Journal, "The US Environmental Industry Overview 2009".

■ China: the second largest environmental market

According to the BERR report, the value of the environmental market in China in 2007/2008 was £411.2 billion, accounting for 13.5 per cent of the world total, which puts China in second place after the United States, while the environmental market value in Japan was £191.3 billion with a share of 6.3 per cent, putting it in third place. There is a huge gap between Japan and China, with the Japanese market less than half the size of that of China.

The estimates by the National Development and Reform Commission (NDRC) of China indicate that the gross product of China's environmental industry will reach 880 billion yuan (approximately US\$130 billion) by 2010. The details show that production from the environmental use of resources is 660 billion yuan, accounting for 75 per cent of the gross product of the environmental industry. The production volume of environmental facilities is 120 billion yuan (13.6 per cent) and of environmental services 100 billion yuan (11.4 per cent). Priority investment areas include water utilization/management, air pollution control, solid waste treatment, ecosystems, nuclear waste treatment and establishment of environmental capacity.

■ The rapidly growing renewable energy-related markets of the European Union

In a report by the European Environmental Bureau entitled “Eco-industry, its size, employment, perspectives and barriers to growth in an enlarged EU” (September 2006), the EU-25 environmental market was valued at €226.7 billion, of which 64 per cent (€144.9 billion) went into pollution management activities and 36 per cent (€81.8 billion) into resource management activities (see Table III-3 below). Major areas of pollution management activities were waste management/recycling, wastewater treatment and air pollution control. Resource management is composed of water supply, recycled materials, renewable energy and eco-building technologies, among others.

The definition of the environmental market by the EU Commission includes the renewable energy and low-carbon sectors, although its coverage seems narrower than that of BERR. The traditional environmental sector, such as waste materials, wastewater, and water supply, is large, and these three areas account for 66 per cent of the total. The EU environmental market in 2004 was reported to have increased by 17 per cent from its 1999 level.

According to the European Commission report, “Links between the environment, economy and jobs” (November 2007), in 2006 the size of the EU-27 environmental market was €270 billion, employing 2.3 million people. When an indirect effect, such as the supply chain, was added, the market size amounted to €750 billion, employing 4.6 million people.

Table III-3. Details of the EU environmental market by sector (EU-25, 2004)

Sector	Market size (€100 million)	Share (%)
Pollution control	1 449	63.9
Solid waste treatment and recycling	524	23.1
Wastewater treatment	522	23.0
Air pollution control	159	7.0
Environmental management by government	115	5.1
Environmental management by company	58	2.6
Soil/underground water purification	52	2.3
Noise/vibration control	2	0.1
R&D on environment	0.1	0.0
Environmental measurement/equipment	NA	NA
Efficient use of resources	818	36.1
Water supply	457	20.2
Recycled materials	243	10.7
Renewable energy	61	2.7
Nature protection	57	2.5
Eco-housing construction	NA	NA
Total	2 267	100.0

Commission report.

The EU has decided to increase the ratio of renewable energy in its total energy consumption from 8.5 per cent in 2005 to 20 per cent by 2020. According to the final report of the European Commission PROGRESS (Promotion and Growth of Renewable Energy Sources and Systems) project, the volume of electricity generated from renewable energy sources in the EU-27 in 2006 accounted for 13.7 per cent of total electricity consumption. It is projected that this percentage will double to reach 28 per cent of total electricity consumption in 2015, and increase to 34 per cent in 2020.

The renewable energy-related markets are expected to grow immensely, supported by the policies of the EU and its member countries. The EU member countries have adopted a programme in which electricity utility companies buy electricity generated by renewable energy, such as wind or solar power, at a fixed price. It is estimated that hydropower, solid biomass, wind power, biogas, and biowaste will account for 95 per cent of renewable energy power generation in 2010. The largest shares will be taken by hydro and wind power, accounting for 36 per cent and 32 per cent respectively. This will be followed by solid biomass, accounting for 17 per cent, solar light/solar for 3 per cent, tidal power for 1.2 per cent, and geothermal power for 0.7 per cent. As for growth, the average growth rate of solar thermal energy generation in the period between 2005 and 2020 is estimated to be 32 per cent, offshore wind power 30 per cent, tidal/wave power 28 per cent, solar light 23 per cent, biogas 12 per cent and solid biomass 11 per cent.

Data on wind power generation in Europe indicates that cumulative wind power installed capacity at the end of 2008 increased by 14.8 per cent over the previous year, accounting for 54 per cent of the world total. Globally, Germany was in second place after the United States, followed by Spain, China, India and Italy (with 7 European countries in the top 10). While the United States and China show rapid growth, Europe is also growing steadily. The overwhelming majority of wind power has been produced by land-based wind farms, but offshore generation is expected to grow in future, as it is less affected by geographical features, as well as having less visual impact. In particular, the North Sea coast and the Atlantic coast in the United Kingdom and the coasts of Norway, Germany and the Netherlands are suitable for offshore wind power generation due to powerful winds in these areas.

Table III-4. Wind power markets in major European countries

	" Newly Constructed Capacity (MW) 2008"	Aggregate Installed Capacity (MW) December 2008	Rate of Growth (%) versus 2007	"Energy Production 2008 (GWh)"	Rate of Growth (%) versus 2007
Germany	1 665	23 903	7.4	41 923	6.1
Spain	1 609	16 740	10.5	34 207	26.5
Italy	1 010	3 737	37.1	5 957	47.7
France	949	3 404	38.7	5 654	39.5
UK	869	3 288	35.9	6 591	25.0
Denmark	78	3 180	1.8	7 300	1.8
Portugal	712	2 862	33.1	5 700	41.1
Netherland	499	2 225	27.4	4 200	22.2
Sweden	190	1 021	22.9	2 021	41.3
Ireland	208	1 003	26.2	2 298	22.6
Austria	14	995	1.3	2 040	1.0
Greece	114	985	13.1	2 159	16.9
Poland	153	451	51.3	723	53.2
Belgium	104	384	33.8	653	25.6
Others	273	803	50.9	1261	67.4
EU27 Total	8 447	64 981	14.8	122 687	18.6

Source: "Wind Energy Barometer (February 2009), EurObserv'ER.

Table III-5. Projected growth in EU offshore wind power capacity (as of January 2009)

(MW)						
Country	In operation (as of January 2009)	Share (%)	Under construction	Planned	2015 Projection	2015 Share (%)
Germany	12	0.8	733	10 183	10 928	29.2
UK	591	40.2	1 392	6 773	8 756	23.4
Sweden	133	9.0	30	3 149	3 312	8.8
Netherlands	247	16.8	0	2 587	2 834	7.6
Spain	0	0	0	1 976	1 976	5.3
Denmark	409	27.8	449	418	1 276	3.4
Other EU	79	5.4	0	8 281	8 360	22.3
EU Total	1 471	100.0	2 604	33 367	37 442	100.0

Source: European Wind Energy Association.

Photovoltaic (PV) power production in Europe remains small, but the market is growing rapidly. The cumulative PV installed capacity of the 27 EU countries at the end of 2008 had increased by 93 per cent over the previous year (see Table III-6 below). Germany has the largest share of cumulative capacity at 56 per cent, followed by Spain with 36 per cent, Italy with 3 per cent and France with 1 per cent. Spain's share exceeded Germany's in 2008 alone due to a surge in demand, following a reduction in the fixed price. Italy's share also grew by 2.6 times over the previous year.

Table III-6. European solar power market

Country	" Newly Constructed Capacity (MWp) 2008"	Aggregate Installed Capacity (MWp) December 2008	European Share (%)	Capacity Growth Rate over previous year (%)
Germany	1 505	5 351	56.1	39.1
Spain	2 671	3 405	35.7	364.0
Italy	197	318	3.3	164.0
France	44	91	1.0	95.3
Belgium	50	71	0.7	231.0
EU27 Total	4 592	9 533	100.0	92.9

Source: "Photovoltaic Barometer (March 2009)", EurObserv'ER.

Production of PV cells (PV devices) is also rapidly expanding. The German firm Q-Cells was market leader in the 2008 world ranking for the second year in a row, with an increase of 48 per cent over the previous year. Second place went to First Solar in the United States, moving up from fifth place in the previous year with a 2.4 times increase. Suntec of China was in third place. Sharp and Kyocera slipped to fourth and sixth place respectively from second and fourth in the previous year.

The market for renewable energy devices and services expands according to the volume of electricity production in the renewable energy sector in Europe. In the case of wind power, prospects for wind power turbines are bright and the market for related equipment and parts will similarly expand. Also promising are hydropower turbines and dams and related facilities, biomass boilers and related devices, and the service market, such as education/technical consultancy.

As for the biofuel market in the EU-27, in 2008 consumption of biofuels for transportation increased by 37 per cent over the previous year. Biodiesel accounted for 75 per cent, bioethanol for 15 per cent, and other fuels (vegetable oil, etc.) for 10 per cent. The market for hybrid vehicles is smaller than that of the United States or Japan.

In Western Europe, an estimated 70,000 hybrid vehicles have been sold (JETRO estimate), accounting for a mere 0.5 per cent of all registered vehicles. This figure is much smaller than the 320,000 vehicles (2008) sold in the United States and 110,271 vehicles (2008) in Japan. However, the market is expected to grow in future and the share of hybrid car sales should reach 5 per cent (about 700,000 vehicles) of all vehicles sold in Europe by 2012.

■ **The environmental market in Germany: achieving a double-digit growth rate each year**

In its Environmental Industry Report, 2009, the German Federal Ministry of the Environment, Nature Conservation and Nuclear Safety (BMU) calculated the size of the environmental market.⁶ The report estimated the size of Germany's environmental market at €9.5 billion (see Table III-7 below). This is an increase of 25 per cent over 2005 and a nearly 50 per cent increase over the 2002 level. The German environmental market expanded by more than 10 per cent in 2006 and 2007. This is attributable to an increased awareness of global warming and a boom in the renewable energy industry. Air pollution control devices, such as filters and catalysts, and measuring technology, are a large proportion of the market, accounting for 29 per cent and 26 per cent of the German eco-business sector in 2007.

The BMU estimate indicates that traditional environmental activities (e.g. waste treatment, wastewater management, air pollution control and measuring technology) accounted for a massive 80 per cent of German eco-business in 2007. The remaining share was taken by energy-efficient products, efficient energy-conversion products and products using renewable energy.

Table III-7. Potential production volume of environmental protection products in Germany (by objective)

(Unit: € billion)

	2002	2003	2004	2005	2006	2007
Waste treatment	2.9	2.8	3.1	3.5	4.1	4.7
Wastewater treatment	9.7	9.9	10.7	11.4	12.6	14.3
Air pollution control	14.1	14.6	15.5	15.8	17.8	19.7
Measurement technology	13	13.4	14.5	15.3	16.8	18.3
Energy/environment ¹	9	9.4	10	10	12.3	14.1
Of which:						
Energy-efficient product	6	6.4	6.3	6.4	7.2	7.9
Efficient energy conversion product	1.2	1	0.9	1	1.3	1.4
Product using renewable energy	1.7	2.1	2.8	2.6	3.8	4.8
Total ²	47.4	48.5	52.6	54.6	62.1	69.5
Percentage of industrial output	4.7	4.8	4.9	4.8	5.1	5.3

Note: (1) Excluding heat pump
(2) Including noise control. Computed considering overlaps. Some data are estimates.

Source: Compiled based on "Umweltwirtschaftsbericht 2009", the Federal Environment Agency.

⁶ This report attempted to collect data on the supply chain, although it acknowledges the difficulty in collecting such data as the environmental industry encompasses such a wide range of sectors compared to traditional industries.

The BMU estimate of the combined market share of the low-carbon and renewable energy sectors is only one quarter of the traditional environmental sector and the share of renewable energy was as low as 7 per cent. This shows a significant contrast to the BERR estimate of the global share of the renewable energy sector, which was 31 per cent. BERR, which adopts a much broader definition of the environmental industry than BMU, estimates that the market value of the German environmental sector was around US\$ 270 billion in FY2007/08, accounting for 4.2 per cent of the world total.

The BMU report classified the German environmental market into six sectors and analysed its share of the world environmental market. In the energy efficiency sector, which includes products such as heat insulation materials and solar cooling systems, Germany accounted for 10 per cent of the world market in 2005. Specifically, its share of the insulation market was 10 per cent, of the market for energy-saving home appliances 15 per cent, and of that for measuring instruments 11 per cent. In the same year, the German share of the global market for sustainable water management, comprising water supply and wastewater treatment, was about 5 per cent. This sector is characterized by a high proportion of wastewater treatment (12 per cent) and water management (40 per cent).

In 2005, German corporations accounted for approximately 20 per cent of the global sustainable mobility sector, such as biodiesel and related devices, hybrid vehicles and advanced transportation systems. In the renewable energy sector, electricity generation and storage, Germany accounted for approximately 30 per cent of the market, making it one of the top countries in the world. Its share of biogas generation was high, at 65 per cent, followed by PV power generation at 41 per cent, hydropower at 33 per cent, wind power at 24 per cent and solar thermal power at 17 per cent.

In the same year, German companies accounted for 24 per cent of the global market in waste management and recycling devices. German companies have two thirds of the global market for automatic waste separation and management devices.

■ The United Kingdom market: driven by wind and photovoltaic power generation

The BERR report analyses the environmental industry in the United Kingdom in detail. The environmental market in the United Kingdom was worth £107 billion in FY2007/08, accounting for 3.5 per cent of the global market. The United Kingdom has the sixth largest eco-market in the world, after Germany (see Table III-8 below).

Specifically, the traditional environmental sector accounts for 21 per cent of the environmental market, renewable energy for 29 per cent and the low-carbon sector for 50 per cent. This is approximately the same composition as the global environmental market. In the traditional environmental sector, the proportions of water purification/wastewater treatment (7 per cent of the total), recovery and recycling (6 per cent) and waste management (5 per cent) were high. In the renewable energy sector, the proportions of wind power generation (11 per cent), geothermal power generation (9 per cent), biomass power generation (5 per cent) and solar photovoltaic power generation (4 per cent) were high, but hydropower generation was a mere 0.5 per cent. In the low-carbon sector, the share of alternative fuels, such as biofuels and nuclear (17 per cent), eco-building technologies (12 per cent), alternative fuels for vehicles (12 per cent) and carbon finance (5 per cent) were high.

Industries such as water purification/wastewater treatment, geothermal generation, alternative fuels for vehicles, and building technologies, have benefitted handsomely from the supply chain, with each industry gaining more than 60 per cent additional market value from it.

Table III-8. United Kingdom environmental business market size FY2007-08

(£1 billion, %)

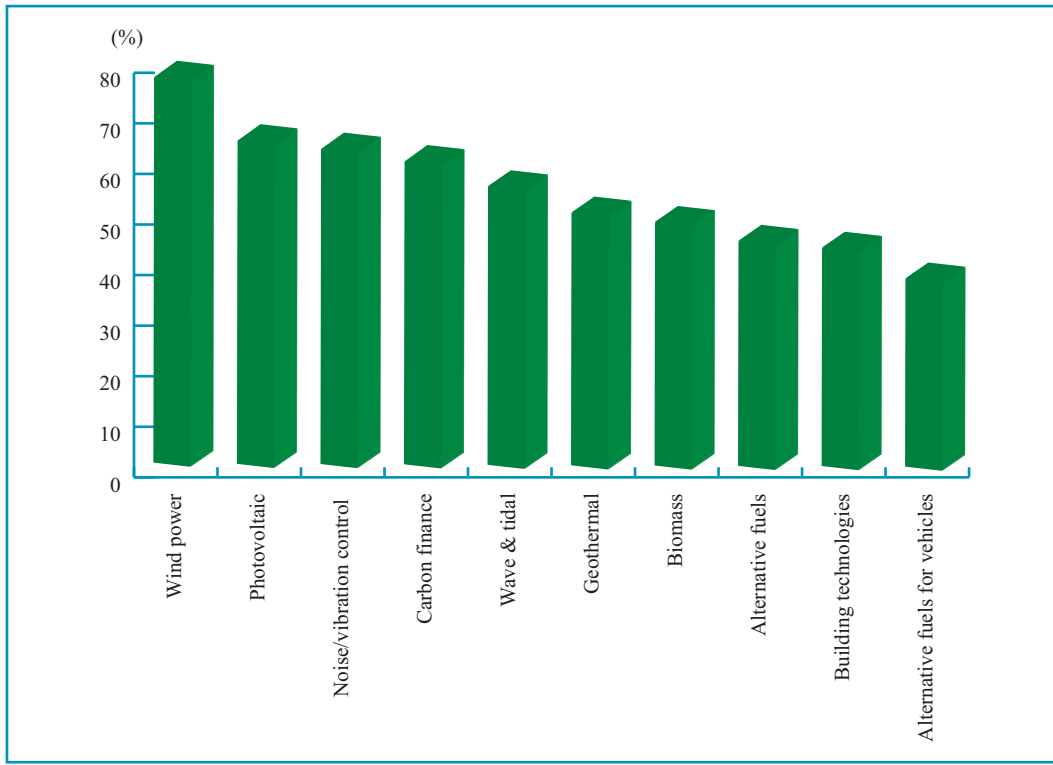
	Category	Market size	Share
Traditional Environmental Sectors	Air pollution	1.0	0.9
	Environmental consultancy	0.7	0.7
	Environmental monitoring	0.2	0.1
	Marine pollution control	0.1	0.1
	Noise/vibration control	0.2	0.2
	Contaminated land	0.9	0.9
	Waste management	4.8	4.5
	Water and wastewater treatment	7.9	7.4
	Recovery/recycling	6.5	6.1
Renewable-Energy Categories	Hydro	0.5	0.5
	Wave & tidal	0.1	0.1
	Biomass	5.0	4.6
	Wind	11.3	10.6
	Geothermal	9.2	8.7
	Renewable consulting	0.5	0.5
	Photovoltaic	4.4	4.2
Low-Carbon Sectors	Alternative fuels for vehicles	12.6	11.8
	Alternative fuels	18.5	17.3
	Additional energy sources	1.2	1.1
	Carbon capture and storage	0.5	0.4
	Carbon finance	5.2	4.9
	Energy management	2.5	2.4
	Building technologies	12.9	12.1
	Total	106.5	100.0

Note: "Alternative fuels" includes nuclear and biomass energy and biofuels (excluding biofuels for vehicles). "Alternative fuels for vehicles" includes LPG, biodiesel and bioethanol. "Building technologies" are those designed to improve energy usage.

Source: BERR report.

Ranking the sectors in order of the forecast growth rate between 2007/08 and 2014/15, wind energy comes top with an estimated 79 per cent growth in seven years (see Figure III-11 below). PV energy comes second (up 66 per cent), followed by noise and vibration control (up 65 per cent), carbon finance (up 62 per cent), wave and tidal (up 57 per cent), geothermal (up 52 per cent), biomass (up 50 per cent), alternative fuels (up 46 per cent), eco-building technologies (up 45 per cent), and alternative fuels for vehicles (up 39 per cent). These sectors (with the exception of noise and vibration control in third place and wave and tidal in fifth place) are all ranked high in the United Kingdom environmental market. It appears, therefore, that in the United Kingdom, the larger the size of the environmental market, the faster its growth.

Figure III-11. Projected seven-year growth rate in the United Kingdom environmental business market (top 10 categories)



Source: BERR report.

■ The Spanish environmental market has nearly tripled in seven years

According to BERR, the market value of the Spanish environmental industry was £83.3 billion in 2007/08, and its share of the total global environmental market (2.7 per cent) was ranked eighth, behind France and ahead of Italy. The market value for France was £92.9 billion and for Italy £82 billion, with shares of 3 per cent and 2.7 per cent, respectively.

Data from the Ministry of Environment shows that the value of the environmental business market reached €9.1 billion in Spain in 2007, having almost tripled during the period between 2000 and 2007. This growth was driven by the EU subsidy programme (€4 billion) and Spanish environmental measures, focusing on renewable energy (see Table III-9 below).

The data from the Ministry of Environment also shows that 86 per cent of the Spanish environmental market is accounted for by environmental pollution control, while a rapidly growing renewable energy sector has only a 12 per cent share. As for fast-growing industries, demand for water purification devices is increasing, due to an increase in the number of construction projects for desalination plants, which have quadrupled in seven years. Also, the growth of the recycling sector and the renewable energy sector (which has also quadrupled) is notable, led by wind and PV power generation.

Table III-9. Market size of environmental business in Spain

Unit: € million, %

			2000	2007	2007/2000 Growth Rate	2007 Share	
A. Pollution control			5 876	16 360	178.4	85.7	
	Water	Sub-total	2 691	5 600	108.1	29.3	
		Water supply	2 158	3 472	60.9	18.2	
		Water purification	533	2 128	299.2	11.1	
		Of which, desalination	n.a.	168		0.9	
	Waste material	Sub-total	3 095	10 760	247.7	56.3	
			Urban solid waste	1 154	3 785	228.0	19.8
			Road cleaning	888	1 010	13.8	5.3
			Industrial waste	182	965	429.9	5.1
		Recycling	871	5 000	473.7	26.2	
		Air	90	n.a.			
B. Environmental load reduction technology and product			n.a.	n.a.			
C. Effective use of resources			1 349	2 739	103.1	14.3	
	Sustainable forestry		415	n.a.			
	Sustainable agriculture		105	400	282.5	2.1	
	Eco-tourism		210	n.a.			
	Renewable energy		619	2 339	277.8	12.2	
Total			7 225	19 099	164.3	100.0	

Source: Compiled from news releases: Data on 2000 (Ministry of Environment) and Data on 2007 (DBK (Market research company), Ministry of Environment and the association of recycling businesses).

(1.4) Environmental measures in the world and business opportunities for companies

The global economic landscape has been drastically transformed since the financial crisis, with individual countries taking a variety of measures to boost the economy and create employment (see Table III-10 below). The main pillar of these economic stimulus packages appears to be the expansion of government spending in the environment and energy sectors.

■ Expansion of the United States green market and business opportunities for companies

The United States allocates a considerable amount of the budget to the environment and energy sectors in the form of government spending and tax breaks under the American Recovery and Reinvestment Act of 2009. The initial objective of the Green New Deal is to enhance economic growth and job creation, but it is also expected to activate environmental industries, which should become a new source of competitiveness for the United States in the world market. This in turn implies the emergence of new business opportunities for foreign companies in the growing United States environmental market.

Table III-10. Promising environmental business sectors worldwide and business opportunities for Japanese companies in various countries

Main Growth Areas Worldwide			
	Traditional Environmental Sectors	Renewable Energy	Low-Carbon Sectors
BERR (UK)		Biomass power equipment, wind power equipment, geothermal power equipment, solar power equipment	Alternative fuel for vehicles, carbon finance, building technologies
German Federal Ministry for the Environment	Automatic waste-sorting and disposal equipment, water management, membrane technology	Solar power equipment	Biodiesel, bioplastics/biopolymers, carbon capture & storage (CCS), hybrid cars, hydrogen/compressed-air storage equipment, solar cooling systems
Promising Fields for Japanese Corporations in Various Country			
US	Contamination-preventing production engineering, waste management services	Wind power generation/geothermal power generation (turbines and related parts) solar energy power generation (cell equipment and related parts/materials)	Power-transmission/power-control equipment ("smart grid"), hybrid cars (plug-in), electric cars, electric-car recharging facilities, building technologies
Canada	Wastewater treatment equipment	Wind and solar power equipment	Biodiesel, bioplastics, smart grid, carbon capture & storage (CCS)
Mexico	Exhaust-heat reuse, steam-trapping equipment	Renewable energy including wind power generation equipment, solar power generation equipment (the Mexican government put into effect the detailed regulations of the 2009 Law for Renewable Energy)	Electricity-saving machinery (from incandescent to fluorescent lighting, adoption of inverters and converters), energy-saving household appliances (inverter air conditioning and refrigerators), light-emitting diodes (LED)
Europe	Measuring instruments, waste management equipment, water supply/sewage treatment equipment, recovery/recycling, afforestation business	Hydroelectric power-generation equipment (including turbines and related equipment), wind-power generating equipment (turbines and parts), biomass equipment/services, solar power generating equipment	Biofuels, fuel cells, hydrogen-fuel cells, energy-saving-technology products/services, electric cars, building technologies
Germany	Measuring instruments, automatic waste-sorting management equipment	wind power (including offshore) generation equipment, solar power generation equipment, photovoltaic cell-manufacturing equipment	Biodiesel, insulation, energy management products, energy management (green household appliances)
UK	Measuring instruments, noise/vibration control	Wave & tidal energy power generation equipment, wind power (including offshore) generation equipment, power-generating turbine equipment and related equipment, geothermal energy generation equipment, solar power generation equipment	Alternative fuels, carbon finance, smart grid, energy management products, building technologies
Spain	Urban solid waste-disposal equipment, water treatment equipment, wastewater treatment equipment, recovery/recycling	Hydropower-generation and wind/solar power generation equipment	Biodiesel, bioethanol, biogas, next-generation electric/hybrid cars, recharging stations for electric cars
China	Air pollution-preventing equipment, environmental-monitoring machinery, noise/vibration control equipment, waste-treatment equipment, water/wastewater management equipment	Miniature hydropower-generation equipment, biomass power generation equipment, wind power generation equipment, solar power generation equipment, solar thermal utilization	Nuclear power production equipment, carbon capture and storage (CCS)
South Korea	Air pollution-preventing machinery, noise/vibration-abating equipment, soil/surface water/groundwater decontamination machinery, recovery/recycling-product manufacture	Equipment for wind/geothermal/solar/solar-thermal power generation and parts/materials	Energy management products, building technologies
UAE, Saudi Arabia	Waste management equipment, wastewater treatment/reuse equipment, water management, recycling	Solar/solar-thermal power generation equipment	carbon capture and storage (CCS)
Turkey	Air pollution-preventing equipment, soil/water-purification equipment, waste management equipment, water-treatment equipment, recovery/recycling	Wind/solar energy power generation equipment and parts	Biodiesel and bioethanol

Sources: Prepared by JETRO based on material from BERR (UK), German Federal Ministry for the Environment and others.

It is not a straightforward exercise to calculate exactly how much of the US\$ 500 billion made available through the American Recovery and Reinvestment Act of 2009 will be spent on the environment/energy sector. Much will depend on the definition and coverage of the sector, e.g. whether the development of infrastructure, such as electric cable improvements in transmission technologies, is included in environmental expenditure. Let us look into three major areas of spending from the Act.

First, total spending on the infrastructure development of electric cables and technology development amounts to US\$ 25.2 billion.⁷ Furthermore, as a tax break for corporations, a budget for tax reduction for renewable energy facilities is to reach US\$ 13 billion by 2014. Second, US\$ 14.3 billion was earmarked for improvement of energy efficiency in federal and state government facilities and low-income housing.⁸ As a tax break for individual eco-housing, the Government adopted measures to refund 30 per cent (up to US\$ 1,500) of the cost of installing energy-efficient windows, doors and ventilators to households in 2009 and 2010, which will come to US\$ 4.3 billion. Third, US\$ 3.3 billion will be earmarked for official procurement of electric and hybrid vehicles, which are becoming increasingly popular in the United States, and for development of a fuel cell system for vehicles.⁹

Government spending in these three areas amounts to US\$ 42.8 billion. The sum of tax reductions or refunds in these three sectors is US\$ 17.3 billion. When other green-related spending under the 2009 Act are included, the overall environment- and energy-related spending is believed to account for around 10 per cent of the total budget.

Business opportunities for foreign companies in United States environmental markets can be found in the Green New Deal initiative. The first item that attracts attention is the amount of spending for infrastructure development and the related equipment of electric cables. Eleven million dollars (US\$ 11 million) have been allocated to electric cables and smart grid-related equipment, which will provide companies with business opportunities to enter markets related to electric cables and power controls.

The renewable energy market in the United States is expected to grow rapidly in the next 10 years. PV power generation encompasses a wide range of products and services from fuel cell devices and related parts/materials to production machinery/parts or related technologies and services. Thus, opportunities are open not only to large corporations but also to SMEs.

■ **China: business opportunities for environmental protection/development together with photovoltaic/wind power generation**

China is said to have invested 1.4 trillion yuan in the environmental sector since 2006, under its 11th Five-Year Plan, which is about 1.4 per cent of GDP for the same period. Specifically, about 650 billion yuan have been invested in infrastructure development in urban areas (46 per cent of the total); about 250 billion yuan in measures against factory pollution (18 per cent); about 400 billion yuan (29 per cent) in construction of environmentally friendly facilities; 60 billion yuan (4 per cent) in ecology conservation; and 40 billion yuan (3 per cent) in construction of production capacity.

⁷ Specifically, the budget contains US\$ 11 billion for an electric smart grid (infrastructure to promote the purchase of surplus household electricity), US\$ 6 billion for improvement of renewable energy/transmission line technologies, US\$ 4.5 billion for modernization of electric cables, US\$ 3.3 billion for electricity distribution systems for the Western Area Power Administration, and US\$ 0.4 billion for development of geothermal technology.

⁸ Of the total US\$ 14.3 billion, US\$ 4.5 billion was for energy efficiency in federal and state government facilities, US\$ 4.5 billion for improving the energy efficiency of the General Services Administration, US\$ 5 billion for anti-weather protection systems for low-income housing, and US\$ 0.3 billion for improving the energy efficiency of low-income housing.

⁹ The government will spend US\$ 0.3 billion for procurement of electric vehicles for official cars, US\$ 0.3 billion for procurement of plug-in hybrid electric vehicles for official cars, US\$ 0.3 billion for procurement of energy-efficient vehicles by state governments, US\$ 0.4 billion for development of electric vehicle technology, and US\$ 2 billion for development of advanced fuel cell vehicle systems/parts.

In China, growth in demand in the traditional environmental sector for conservation and development is expected. In the traditional environmental sectors, China needs to make further investment, including in air pollution control and waste treatment, to meet the needs of rapid industrialization and urbanization. It also needs to promote better water management, due particularly to a paucity of per capita water resources, and a delay in the development of wastewater/polluted water treatment capacity in urban areas and industrial facilities.

Moreover, China currently suffers from coal-based air pollution. The electricity industry must therefore invest in desulphurization and dust removal. In this context, the demand for technology for capturing and storing CO₂ generated from coal-fired power plants is assumed to be large. Also, China lacks wastewater treatment capacity for the future, with a 7 per cent annual rate of increase in industrial solid waste and 4 per cent annual rate of increase in urban living waste.

The projections made by the Chinese environmental conservation machinery industry suggest that gross production of the industry as a whole will reach 100 billion to 120 billion yuan by 2010, with an average annual growth rate of 13–17 per cent over the five years until 2010. Thus, business opportunities for foreign companies look promising in such areas as air pollution reduction facilities, carbon capture and storage (CCS), water/wastewater treatment devices, environmental monitoring devices and noise/vibration control devices.

Looking at the amount of investment in renewable energy in 2007, investment in small-scale hydropower generation and wind power generation was highest, followed by investment in PV power generation and biomass. Increasing use of clean, renewable energy will help to simultaneously solve two of the problems that China is facing: energy shortages and environmental issues.

The Chinese Government has embarked upon a fully fledged promotion of renewable energy with a view both to economic stimulus and employment creation. China's PV power installed capacity is lower than other major countries and an expansion in consumption of PV-generated electricity poses a challenge for the future. Nonetheless, the production of PV cells has made remarkable progress and China is now the largest producer in the world. Chinese companies are now among the world's major PV cell manufacturers, and many are listed on the stock exchanges in New York and London. In the past, these companies have mainly expanded in overseas markets, but are now shifting gears to supply the domestic market as a result of the financial crisis.

At the third International Photovoltaic Power Generation Conference and Exhibition held in Shanghai in May 2009, it was revealed that the Chinese Government was trying to achieve generating capacity of 1.8 million kilowatt/year, which is at least five times higher than its original target. The PV cell industry in China has grown rapidly through market expansion in Europe, but its sales volumes have recently plunged, due to a decline in the export price. In 2004, the total sales of one major PV cell manufacturer broke down as follows: 72 per cent to Germany, 17 per cent to other European countries, and 3 per cent to other regions, while domestic sales accounted for only 8 per cent. With the revision of its target for generation, the Chinese Government intends to expand domestic demand and further promote the PV cell industry. If China meets this target, its share of the global PV power generation installation market will increase.

It is likely that China also has a plan to assist electricity companies and manufacturers of related equipment in order to increase wind power generation capacity eightfold by 2020. The total investment value is projected to amount to approximately US\$ 107 billion. Since China already has advanced wind power generation technology and its costs are lower than that of PV power generation, wind power generation has great potential for future development. An increasing number of wind power generation facilities are domestically produced, with the latest figures showing a nearly 50 per cent share. If the

2020 target is achieved, China may well overtake the United States as the largest wind power generator in the world.

■ **The European Union: environmentally conscious markets and business opportunities in the European Union**

Through its environmental policy the EU aims to improve the quality of life for its citizens and takes the view that environmental measures will lead to economic prosperity, and that innovation brought about by its environmental policy and the creation of new markets will strengthen the global competitiveness of the EU. Since 2003, it has put forward a number of action plans for hydrogen fuel cell technology, water supply/sewage treatment, PV power generation technology, biofuels, and wind power generation.

In this context, nearly €200 million was made available to fund a programme entitled “Eco-innovation” between 2008 and 2013. In 2008, 40 projects out of 134 applications were adopted, of which recycling projects accounted for about 60 per cent, followed by green business (17 per cent) and eco-building technologies (13 per cent). Seventy-four percent of participating companies are SMEs, and many are from Spain (28 companies), Italy (27) and Germany (26). The total amount of subsidiary funding for research and development will reach about €50 billion between 2007 and 2013.

The EU has also made progress with its “green” public procurement, which prioritizes the purchase of environmentally friendly products and services. The total annual amount of EU green public procurement has reached €1.5 trillion, accounting for 16 per cent of GDP. In July 2008, the European Commission proposed raising the proportion of green public procurement to 50 per cent or higher of total EU public procurement by 2010.

The EU eco-labelling system is a voluntary system for affixing a special label to products and services that have been verified as environmentally friendly. The system was introduced in 1992 and, as of November 2008, 3,500 products and services of about 700 companies had obtained the right to use the label. The annual sales of these products and services amounted to €1.5 billion.

The EU intends to make use of regulations to stimulate the potential for innovation and business development. At the same time, it expects its environmental measures to have a synergistic effect on the development of the eco-market. Since the financial crisis, each EU member State has individually implemented environmental measures as part of its economic stimulus package.

The member States have introduced subsidies (of between €1,000 and €2,500) for the purchase of new cars in return for consumers scrapping their old ones. Subsidies for energy conservation in housing and other buildings, and development of electric or fuel cell vehicles have also been adopted.

The EU provides intensive support to the renewable energy sector and to other promising industries, such as electric vehicles and fuel cells. The importance of PV power generation is expected to grow in the future, since it still plays only a small part in renewable energy output. It is certain that technological innovation in PV power generation will dramatically expand not only the electrical energy sector but also related markets such as eco-housing and cells for PV generation. In addition, this technology may also be applied to vehicles and electric appliances which will further expand related markets.

As regards the biomass market in the EU, in one instance a Belgium company supplies wood pellets that are used for heating homes. The wood pellets are delivered by truck directly to the storage area of each building, in just the same way as an oil tank is refilled.

With the price of pellets at the same level as the oil price, and motivated by the government subsidy the number of pellet users is increasing steadily. The dissemination and expansion of eco-business markets, such as use of pellets for heating and PV power generation, will definitely require support and subsidy from governments. This in turn means that the market will react directly to government action and thus the eco-market may be considered the perfect sector in which government may implement economic stimulus measures in order to respond to the financial crisis, and develop industry in a mid- and long-term perspective.

Among EU member States, Germany's Renewable Energy Export Initiative, a policy implemented in 2003 by the Federal Ministry of Economics and Technology, is designed to promote export of technologies and devices related to renewable energy. In particular, it aims to help SMEs expand into foreign markets. Major activities of the Initiative include the German Chamber of Commerce programme to promote overseas business negotiations; a business-matching programme for SMEs; information provision by the Federal Bureau of Foreign Trade Information; and support from the German Organization for Technical Cooperation (GTZ) for projects concerning renewable energy power generation in rural areas in developing countries.

Table III-11. Anti-global warming measures included in the economic stimulus package of major EU States

As of January 2009

Country	Details
Germany	<p>Additional spending of €3 billion for renovation and refurbishment to improve efficiency</p> <p>Offer a €2500 incentive to consumers who buy a new car that fits the minimum Euro 4 emissions standards and at the same time scrap a vehicle that is more than nine years old.</p> <p>Provide small and medium enterprises with €900 million for R&D in environment/energy sector for two years</p> <p>Subsidy or loan of €500 million for two years for innovative vehicle technology, such as fuel cell and hydrogen technology</p>
France	<p>Front loading of public investment plan in the areas of transportation and energy</p> <p>Shore up the automobile and housing markets</p> <p>Expand the target of Scrap Incentive to vehicles that are at least ten years old and raise the incentive to €1000</p> <p>Establish a half-public, half-private auto industry fund (total €300 million) for development investment for electric cars to improve competitiveness</p> <p>Introduction of preferential tax system to install highly efficient boiler and double glazed windows in January 2005</p>
U.K.	<p>Injection of £535 million for improvement of energy efficiency and railway transportation</p> <p>Postponement for financial support for the introduction of large-scale renewable energy (electricity) to 2037</p> <p>Introduction of a fixed price feed-in tariff to support introduction of small-scale renewable energy</p> <p>Implementation of insulation measures through household energy-saving program</p> <p>Promotion of introduction of environmentally conscious vehicles by revising the automobile excise tax</p> <p>Support of technological innovation at every stage of environmental research, development, verification and dissemination</p>
Italy	<p>Extension of income tax deduction for 55% of building costs for energy-saving on housing, etc. in 2009</p>
Spain	<p>Interest-free or low-interest loan guarantee for replacement of a car that is owned for more than ten years with an eco-car.</p> <p>Exemption of the vehicle registration tax for the vehicles with CO₂ emissions of below 120g/km</p> <p>Subsidy for purchase of household appliances with high energy efficiency (implemented in 2008)</p> <p>Subsidy for making buildings energy-efficient (implemented 2008)</p> <p>Subsidy for the construction of energy-efficient new buildings</p>

Source: JETRO overseas offices.

In the United Kingdom, the new Department of Energy and Climate Change, established in October 2008, brings together climate change and energy policies. The Government has also enacted the Climate Change Act which puts onto the statute book the target of reducing greenhouse gas emissions by at least 26 per cent by 2020 and by 80 per cent by 2050. Also in the renewable energy sector, the Government has adopted a feed-in tariff system, and created the Environmental Transformation Fund (ETF) with the aim of promoting development of low-carbon and energy conservation technologies. As part of an economic stimulus package after the financial crisis, the Government also reinforced its support for environmental business, and lowered barriers to foreign capital.

Spain has formulated the 2005-2010 Renewable Energy Plan, which raised the targeted share of renewable energy to 12 per cent or higher of total energy consumption and to 29.4 per cent of gross electricity generation by 2010. It also raised the target of biofuel consumption to 5.75 per cent of total transportation fuels. In effect, electricity generated from renewable energy reached 20 per cent of gross electricity output in 2007, thanks to notable progress in the wind power, PV power, hydropower and biogas sectors.

The driving force for achieving the plan is a feed-in tariff policy for renewable power energy. This system, adopted in 1998, requires utilities to buy electricity generated from renewable sources, and the guarantee period was extended to 25 years in 2004. This had a dramatic effect on the wind power sector, which grew by an annual average of 25.7 per cent from 2002 to 2007. As of the end of 2008, its cumulative installed wind power capacity put Spain in third place in the world, after the United States and Germany.

In the field of PV power generation, a policy revision in 2007 doubled the purchase price of electricity for a large-scale plant and as a result, some of the largest plants in the world were constructed. In September 2008, the Government announced a reduction in the purchase price, for fear of overheating in the market. This in return caused a surge in demand, spurring further plant construction. In 2008, installation of new PV generation capacity in Spain was ranked first in the world and the cumulative installed capacity was ranked second in the world, after Germany.

Table III-12. Current installation of renewable power generation facilities in Spain

	New installation target by 2010 (Cumulative Target)	Newly installed facilities by the end of 2007 (Cumulative Results)	Installation rate
Hydro (new installation of less than small- and medium-sized facilities)	810 (18,977)	205 (18,372)	25.3%
Biomass (including Combined Combustion)	1,695 (2,039)	52 (396)	3.1%
Urban solid waste	0 (189)	0 (189)	100.0%
Wind	12,000 (20,155)	6,935 (15,090)	57.8%
PV	363 (400)	601 (638)	165.6%
Biogas	94 (235)	25 (166)	26.6%
Solar thermal	500 (500)	11 (11)	2.2%
Total	15,462 (42,495)	7,829 (34,862)	50.6%

Source: Ministry of Industry, Tourism and Commerce.

- **The Middle East is expanding water treatment, wind, photovoltaic, and solar thermal power generation**

In general, public awareness of the effective use of resources for environmental reasons is not as strong in developing countries as in developed countries. However, a growing number of governments in developing countries have started to implement environmental measures, such as those aimed at reducing greenhouse gas emissions.

For instance, the Government of Turkey is steadily developing environment-related laws and regulations. Turkey has already signed 41 international agreements and 30 protocols, including the Kyoto Protocol. In the process of meeting EU standards, the Government has decided that the development of environment-related industries is the key to improving the competitiveness of Turkish industry and turning Turkey into a hub between Europe, the Middle East and the Commonwealth of Independent States (CIS).

Currently promising sectors are recycling, soil/water purification devices, water treatment devices, air pollution control devices, waste treatment, and renewable energy. In 2007, Turkey exported environmental technology and services worth \$2.6 billion, an export sector which has grown significantly, with an annual average growth rate of 30 per cent since 2002. A closer look at such exports indicates that emission systems for vehicles (prevention of noise/vibration) accounted for 52 per cent of the total. However, air pollution control devices, waste treatment devices and energy conservation products were also significant.

Turkey is blessed with rich renewable energy resources. PV, wind, biofuels, hydro, and geothermal resources are all present, with PV, wind and biodiesels attracting particular attention. Biodiesels are exported to Bulgaria, Iran (Islamic Republic of), Netherlands, Romania, Saudi Arabia, and the United Arab Emirates. The Government is considering revision of a fixed price feed-in tariff system for renewable energy. However, the business sector is calling for further incentives because renewable energy takes more time to become profitable. Once these incentives start working correctly, business opportunities in the renewable sector in Turkey will increase even further.

The United Arab Emirates is also seeking to create a general sense of business opportunity by investing in environmental markets and incorporating foreign environment-related companies. As part of such efforts, in 2006 the Abu Dhabi Government announced the Masdar Initiative, with a view to making the country the world centre for renewable energy and energy-conserving technologies. Under this initiative, the Government plans to develop a zero CO²-emission city "Masdar City", implement CO² reduction projects, and invest in environment-related companies. In Masdar City, a PV power plant began operations in May 2009, and a pilot project for wind power generation has been launched. Furthermore, the country successfully won the bid to host the headquarters of the International Renewable Energy Agency (IRENA), which was founded in January 2009 and in which 75 countries originally participated.

This approach of Middle Eastern countries to the environmental market can be largely ascribed to domestic issues, such as increasing population and advancing urbanization, in addition to the motivation of developing environmental industries. In other words, it is becoming increasingly essential to take measures to meet rapidly growing demand for energy and electricity, waste treatment, and water supply/management. While the oil-producing Middle Eastern countries are currently able to supply low-cost electricity, they need to expand the supply of electricity generated by wind, PV or solar thermal power in light of eventual depletion of resources. Moreover, the Middle East is endowed with intense and abundant sunshine and therefore has plenty of PV and solar thermal resources.

Business opportunities in the Middle East are therefore most likely to arise from demand for waste treatment, wastewater treatment/reuse, water management, recycling, and PV and solar thermal

power generation, all of which accompany urban development programmes. Other sectors that also present good commercial potential include capture and storage technologies for CO₂ emitted from power plants and oil refineries. The Middle East depends on other countries for these technologies and its environmental business will be attractive for foreign companies.

2. Rulemaking in the area of trade and environment

Companies are increasingly required to internalize the cost of complying with environmental rules in order to successfully conduct their business. Given the massive growth prospects of the global environmental market, there is a growing need to clarify the relationship between multilateral environmental agreements and international trade rules, so as to ensure the trouble-free development of trade in environment-related products.¹⁰

In this section, we examine actions that have been taken by the international community and individual countries in their efforts to link the need for environmental protection with the multilateral trading system. In particular, the focus will centre on the discussions taking place in the Doha Round concerning the reduction or elimination of tariffs on environment-related products and the relationship between WTO rules and environmental agreements, in addition to looking at the effect of EU environmental regulations on global business activities.

(2.1) Discussions concerning trade and the environment

■ Increasing environmental awareness worldwide

An increase in environmental awareness can be observed throughout the world. The Fourth Assessment Report of the Intergovernmental Panel on Climate Change (IPCC), published in 2007 stated that global warming is “unequivocal.” This issue has been brought home to people throughout the world by disturbing images of crumbling glaciers in the Arctic and Antarctic, animals and plants on the verge of extinction, torrential downpours and droughts in many regions, and we have become aware that the situation is no longer potential, but actual. Work is being done to combat global warming in a large number of international forums and in countries and regions throughout the world, and considerable effort is being directed towards attempts to reduce emissions of carbon dioxide, one of the factors causing global warming.

The United Nations Conference on Environment and Development (also known as the Earth Summit), held in Rio de Janeiro in June 1992, represented a major turning point in thinking regarding the environment. Over 180 countries participated in the summit, with 102 sending their leaders. Participants voted to adopt the United Nations Agenda 21, an action plan for sustainable development for the twenty-first century, and signed two important agreements, the Framework Convention on Climate Change and the Convention on Biological Diversity.

Another important milestone was the World Summit on Sustainable Development, held in Johannesburg in September 2002. The Johannesburg summit reviewed Agenda 21 and produced the Johannesburg Declaration on Sustainable Development, in addition to establishing an implementation

¹⁰ The goals of multilateral environmental agreements vary. They include: protection of biodiversity and wild life (e.g. Convention on International Trade in Endangered Species), protection of the atmosphere (e.g. 1987 Montreal Protocol on Substances that Depletes the Ozone Layer); regulations of waste, chemical and/or hazardous substances (e.g. 1989 Basel Convention on the Control of Trans-boundary Movements of Hazardous Wastes and their Disposal).

plan providing guidelines for action. This summit increased international awareness of the fact that environmental issues demand rapid solutions.

At the same time, discussions began to focus on the relationship between trade – essential for economic development – and the preservation of the environment. In 1991, a dispute was brought before a GATT panel regarding import restrictions imposed on Mexican tuna by the United States because of the fishing methods used, which resulted in a high rate of capture of dolphins in the tuna nets. The panel found that the restrictions were not justified under the terms of GATT, leading to a fierce reaction from environmental groups. Free-trade rules were seen as taking precedence over environmental protection measures. However, since that period, discussions of these issues have continued at a global level, and awareness that the two can coexist has increased. The relationship between trade and environmental protection was taken up as an issue at the Earth and Johannesburg Summits, and it was concluded that such a relationship could be mutually supportive. In the Doha Round, “trade and the environment” forms part of the negotiation agenda, aimed at reducing or eliminating tariffs on environment-related products, and harmonization between trade rules and the various environmental agreements on the management of poisonous substances, waste products, and chemical substances.

In the EU, new types of environmental regulations dealing with the waste produced by manufacturing industry are being successively introduced based on the Sixth Environment Action Programme 2002-2012, announced by the European Commission in July 2002. Based on the “polluter pays” and precautionary principles, and taking into consideration the life cycle of the product (discussed below), these regulations demand that member countries and their industries reduce the environmental burden at every stage of the life of a product, from design to scrapping. The regulations are therefore having a significant impact on business activities. The EU environmental regulations are also spreading to other major nations, including China, Japan, the Republic of Korea and the United States.

■ The coordination of trade liberalization and environmental protection in the WTO

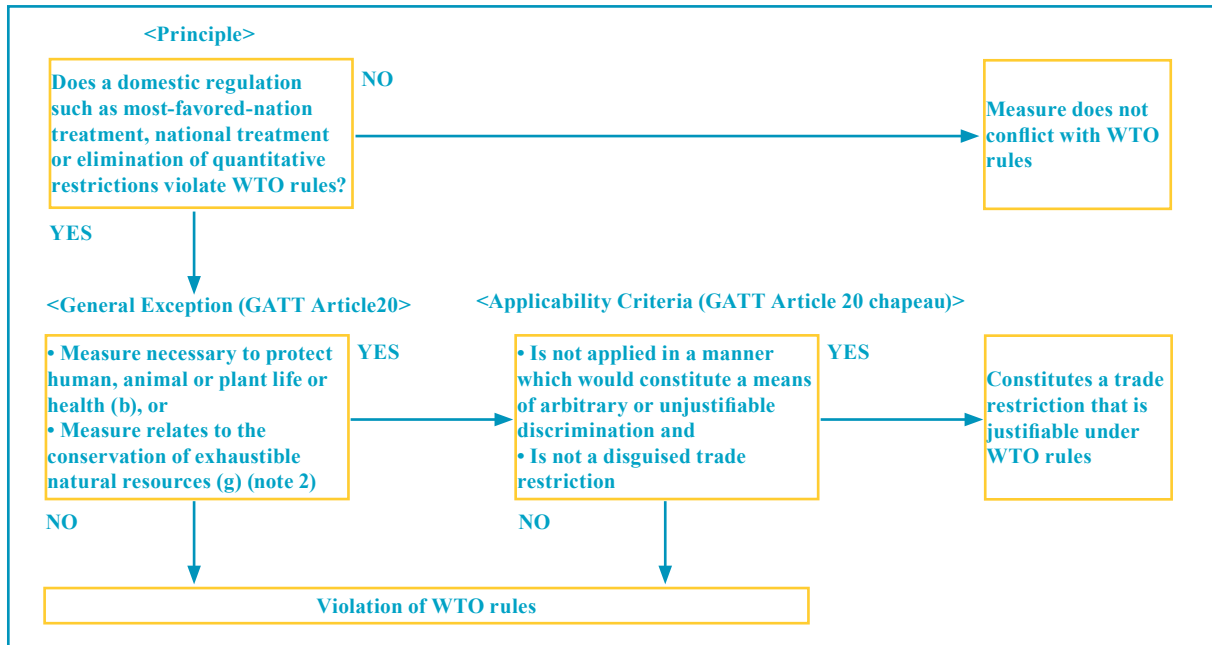
With increasing global efforts to protect the environment, such as the implementation of measures to combat climate change, the WTO has been faced with the task of harmonizing the relationship between trade liberalization and the environmental protection measures that are sometimes inimical to it. Because GATT does not contain clear stipulations regarding environmental protection, in the majority of cases the consistency of domestic environmental measures with WTO rules is decided by the WTO Dispute Settlement Body, based on an interpretation of article XX of GATT, covering general exceptions to trade rules (see Figure III-12 below). In practice, there has been very few dispute cases involving trade and environmental measures.

In 2001, the Appellate Body of the WTO ruled that a French domestic measure banning imports of products containing asbestos fibres was necessary for the protection of human life and health, and that the criteria for application of the measure were justifiable under WTO rules. This case demonstrated that the WTO Dispute Settlement Body would to a certain extent consider domestic measures implemented for the purpose of environmental protection as exceptions to the demands of trade liberalization. However, there are limits to the regulation of these issues that can be achieved through a reliance on the judicial interpretations of the WTO, and it is recognized that there is a need for an agreement between member countries.

Paragraphs 31-33 of the Doha Ministerial Declaration set out topics for negotiation that are related to trade and the environment. The main points of discussion are (i) the reduction or abolition of tariff and non-tariff barriers to products (termed “environmental goods” below) and services that are useful from the perspective of environmental protection, or have a minimal environmental impact, and (ii) clarification of the relationship between WTO rules and specific trade obligations established

in multilateral environmental agreements. A number of other points for negotiation are also set out, including labelling requirements for environmental purposes.

Figure III-12. Environmental protection standards under GATT and the dispute settlement mechanism of the WTO



Note: (1) Besides GATT Article 20, WTO documents relating to environmental protection include: the preamble in the Agreement Establishing the WTO, the General Agreement on Trade in Services (GATS) Article 14 (b), The Agreement on the Application of Sanitary and Phytosanitary Measures (SPS) Article 2 and others, Agreement on Technical Barriers to Trade (TBT) Article 2 and others, etc.

(2) Only if such measures are made effective in conjunction with restrictions on domestic production or consumption.

Source: Prepared based on WTO Agreement.

■ Abolition of tariffs on environmental goods

The point to which the most discussion time has been given in the Doha negotiations on trade and the environment is the means of abolishing tariffs on environmental goods (see Table III-13 below).

Nine developed countries, including Japan and the United States, as well as the EU, propose to eliminate tariffs on 153 products (at 6-digit HS code level) in 12 classifications. The proposal reflects the differences in the detailed product classifications used by different countries, and contains provisions for more detailed definitions, the designation of excluded products, withholding of specific products by different countries, etc.

In addition, the EU and the United States have proposed a two-stage approach, in which negotiations are divided between those concerning goods on which all WTO member countries should abolish tariffs, and goods on which only the major member countries should do so. This approach of limiting the number of countries participating in the negotiations is similar to that adopted for the Information Technology Agreement (ITA), by means of which around 70 members have abolished tariffs on IT-related goods, and have liberalized approximately 97 per cent of trade in the goods covered by the Agreement.

In January 2009, the Japanese Government announced its intention to propose its own list of goods, focusing in particular on energy-saving products.

In response to this approach of formulating lists of products to be subject to the abolition of tariffs, as suggested chiefly by the developed nations, developing countries have raised the criticism that the products proposed by the developed countries are not necessarily utilized exclusively in environmental measures, i.e., they are also imported and exported for purposes other than for use in environmental protection (this is the issue of “dual use”). Developing countries have also indicated that the formulation of detailed lists is in itself advantageous for the exports of developed nations, which possess greater technological capacity, and are asserting that agricultural products in which developing countries have a competitive advantage, such as raw materials for bioethanol, should also be subject to negotiation. A new proposal put forward by Brazil in November 2007 for a bilateral “request-offer” process to be employed in negotiations regarding services, can be taken as representative of the proposals coming from developing countries.

Table III-13. Main proposals on tariff-elimination formulas for environmental goods

Proposing Country/Region (Date of Proposal)	Description
Japan, US, EU, Canada, South Korea, New Zealand, Norway, Taiwan, Switzerland (April 2007)	List encompassing 153 items (HS code 6-digits) and 12 categories: (1) Air pollution control (2) Management of Solid and Hazardous Waste and Recycling System (3) Cleanup or remediation of soil and water (4) Renewable-energy plants (5) Heat and energy management (6) Waste water management and potable water treatment (7) Environmentally preferable products, based on end use or disposal characteristics (8) Cleaner or more resource efficient technologies and products (9) Natural risk management (10) Natural (marine) resources protection (11) Noise and vibration abatement (12) Environmental monitoring, analysis and assessment equipment
US, EU (November 2007)	Two-step process for negotiating elimination of tariffs on 153 items starting with (1) 43 goods directly linked to environmental protection, according to a World Bank report, on which tariffs should be eliminated by all 153 WTO member states, and (2) limited to developed and emerging member states and excluding least-developed countries. The proposal was a response to developing countries' criticism of an across-the-board elimination.
India, Argentina (June 2007)	Project-based formula that eliminates tariff and service barriers only for trade related to activities that are certified as projects that contribute to the environment. Each country would submit a list of private-sector companies and public entities engaged in activities benefitting the environment, and certification of projects on each country's list would be decided through multilateral negotiations.
Brazil (November 2007)	"Request & offer" formula adopted during the Doha Round negotiations on services. Each country would submit a list (request) of environmental goods whose tariffs it wished to have eliminated, and each country receiving the list would answer (offer) items on which it could take action. An item liberalized as a result of a country's offer would be accorded MFN status by all WTO members. Brazil's proposal would not limit environmental goods to industrial goods, but would include agricultural products such as bioethanol in the negotiations as well.

Source: Prepared based on WTO Secretariat materials.

However, at this stage, negotiations have stalled and the future direction of the negotiations remains unclear. The trade and environment negotiations are closely related to the non-agricultural market access (NAMA) negotiations, and their progress will be affected by the course of these latter negotiations.

■ The relationship between multilateral environmental agreements and WTO rules

The second major point of contention in the trade and environment negotiations has been coordination of the stipulations of multilateral environmental agreements that impose trade restrictions

(prohibition of the importation of regulated items, etc.) with WTO rules. Of more than 250 multilateral environmental agreements in existence, approximately 20 contain provisions, such as import and export prohibitions, which clearly do not conform to WTO trade liberalization rules. While none of these provisions has yet become an issue for the WTO, as environmental agreements proliferate and increase in complexity, it is easy to predict that cases of conflict with WTO rules will arise in future.

For example, the Cartagena Protocol on Biosafety, an agreement concerning biological diversity, stipulates a higher level of environmental protection than the “precautionary principle” based on the WTO Agreement on the Application of Sanitary and Phytosanitary Measures (SPS). Specifically, even if an importing country does not possess sufficient relevant scientific information or knowledge, it is able to prohibit the importation of a living modified organism if it judges that the importation will have a negative impact on the protection of biological diversity, etc. (Cartagena Protocol, article 10, item 6). This goes a step further than article 5, item 7 of the SPS Agreement, which provides for the provisional application of sanitary or phytosanitary measures on the basis of available information. Given this, it is possible that conflicts between prohibitions on imports of genetically modified substances applied by signatories to the Cartagena Protocol and the terms of the SPS Agreement will represent a problem in the future.

Other environmental agreements which are the subject of negotiations include the Stockholm Agreement on Persisting Organic Pollutants, the Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade, the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal, and the Montreal Protocol on Substances that Deplete the Ozone Layer.

In the Doha Round, a question has been raised as to which obligations in specific environmental agreements are considered consistent with the WTO environment-related standards, in particular article XX of GATT. Some countries take the position that, where environmental agreements clearly stipulate provisions for specific trade obligations, these provisions should be recognized as being in accord with the WTO agreements. If environmental agreements between WTO members are recognized as being consistent with WTO rules, the ability of companies to predict trade risks, such as prohibitions on imports and exports, will increase to a certain extent, and future progress in the negotiations is therefore eagerly awaited.

There are some cases where consistency with environmental agreements has been established at the FTA level. Article 104 of NAFTA gives priority to the obligations of specific environmental agreements (the Montreal Protocol, the Washington Convention, and the Basel Convention) over NAFTA obligations, provided that the method chosen for complying with the obligations is the least inconsistent with other NAFTA obligations.

At present, most attention is focused on the consistency of measures against climate change being introduced around the globe under WTO rules. The Kyoto Protocol, which makes provision for an emissions trading scheme, contains no provisions for trade-restrictive measures that are clearly inconsistent with WTO rules. The Protocol rather enjoins parties to strive to minimize the negative impact on international trade of any measures adopted, seeking to establish harmony between trade and the Kyoto mechanisms.

However, there is a possibility that the details of the measures being considered in order to meet Kyoto targets, or the mode of operation of these measures, may be inconsistent with WTO rules, and it will be necessary to monitor the situation. For example, the EU and the United States are considering the introduction of a border tax adjustment measure which may impose an import levy on products originating in countries which have not satisfied their commitments for the reduction of greenhouse gases. In June 2009, the House of Representatives passed the American Clean Energy and Security

Act, which paves the way for the introduction of border tax adjustment. The same Act enables the President, in the event that no international agreement with binding power regarding the reduction of greenhouse gas emissions has been reached by January 1, 2018, to recommend to Congress the establishment of a system requiring the purchase of international reserve allowances, corresponding to border tax adjustments, in the case of imports from countries whose levels of energy consumption and greenhouse gas emissions per shipment of specific products exceeds the standards established by the United States for the same industry.

In relation to this point, the WTO indicated in a report on trade and climate change, jointly issued with the United Nations Environment Programme (UNEP) in June 2009, that border measures put into effect by any nation must be consistent with WTO rules, in particular article XX of GATT.

■ **Conflict over eco-labeling carries over from the GATT era**

The provision of information regarding products that consider the environment is allowed by the WTO, provided that it is done in a non-discriminatory manner. However, the WTO does not allow the use of labelling requirements as disguised trade restrictions, or their arbitrary application resulting in actual discrimination against import products. The relationship between eco-labelling and the WTO Agreement on Technical Barriers to Trade (TBT) represents a particular point of argument.

In a recent development, Mexico brought a case to the WTO in October 2008 claiming that a United States labelling system indicating that tuna had been caught using “dolphin-safe” methods was discriminatory. This issue had previously been brought before a GATT panel before the WTO came into existence. At that time, the panel report had stated that the labels could be retained, provided that they did not hinder free sale of the product. However, the panel report was not adopted. In April 2009, the WTO established a dispute settlement panel to deal with the issue, and attention is being drawn to the case as presenting a new aspect of environment-related conflict in the WTO.

(2.2) Formation of international environmental standards driven by the EU

■ **The EU introduces successive pioneering environmental regulations**

A significant change in thinking about regulations concerning the waste products of manufacturing industry has taken place. In the past, the central focus was on the formulation of regulations to control the discharge of harmful gases and waste products from factories. However, there is an increasing awareness of the need to limit the burden on the environment at every stage of the manufacturing process, in order to regulate waste products in an efficient manner.

The EU is leading the way in the new push towards this type of environmental regulation. Since the July 2002 publication of the Sixth Environment Action Programme, which provides guidelines for regulations, the EU has introduced a series of environmental regulations. To date, it has introduced the End of Life Vehicles (ELV) Directive (July 2003), the Waste Electrical and Electronic Equipment (WEEE) Directive (August 2005), the Directive on the Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment (RoHS) (July 2006), the Regulation on Registration, Evaluation, Authorization and Restriction of Chemicals (REACH) (June 2007), and the Energy-Using Products Directive (EuP) (framework directive, August 2005; implementation, successively from December 2008) (see Table III-14 below).

Table III-14. Major EU environmental regulations

Regulation	Date of promulgation	Outline		Status
		Purpose	Content	
End of life Vehicles (ELV) Directive	01.07.2003	To reduce waste through the collection, reuse, and recycling of scrapped vehicles.	<ul style="list-style-type: none"> • Obliges establishment of integrated systems for the transportation of vehicles to treatment facilities, the issuing of certificates of scrap, and de-registration of vehicles. • Prohibits the use of lead, mercury, cadmium, and hexavalent chromium. Certain exemptions are provided. • Requires the manufacturer to bear the entire cost or the majority of the cost for treatment of the vehicle. • Increases the recycling rate for scrapped vehicles to 85% or more (until January 2006). Increases the rate to 95% by January 2015. 	<ul style="list-style-type: none"> • In force.
Waste Electrical and Electronic Equipment (WEEE) Directive	13.08.2005	To prevent and reduce waste by increasing the collection and recycling of waste electrical and electronic equipment.	<ul style="list-style-type: none"> • Obliges establishment of systems for the collection and separation of waste electrical and electronic equipment, pick-up services, and treatment facilities. • Sets collection target of 4 kg per person per year. • Requires the manufacturer to bear the cost of collection, treatment, recycling, and scrapping. 	<ul style="list-style-type: none"> • In force. • Proposed revisions are currently under review in the co-decision procedure.
Restriction of Hazardous Substances (RoHS) Directive	01.07.2006	To minimize the destruction of the environment and health risks by restricting the use of specified hazardous substances in electrical and electronic equipment.	<ul style="list-style-type: none"> • Prohibits the manufacture and sale of electrical and electronic equipment containing more than a specified quantity of six hazardous substances (lead, mercury, hexavalent chromium, cadmium, polybrominated biphenyls (PBB), and polybrominated diphenyl ethers (PBDE)). • Depending on the use of the equipment, use of the substances might be approved. The regulations also do not apply if no substitute substance exists. • Compliant products are sold bearing the CE Mark. 	<ul style="list-style-type: none"> • In force. • Proposed revisions are currently under review in the co-decision procedure.

(August 2009)

Table III.14 (cont'd)

Regulation	Date of promulgation	Outline		Status
		Purpose	Content	
Registration, Evaluation, Authorization, and Restriction of Chemicals	01.06.2007	To enhance the protection of human health and the environment while promoting technological innovation and maintaining the competitiveness of the chemicals industry.	<ul style="list-style-type: none"> Registration: Companies manufacturing or importing 1 tone or more of chemical substances are required to submit the necessary documents, including technological documents and Chemical Safety Reports (CSR), to the European Chemicals Agency (ECHA). Evaluation: Evaluation of the CSR, etc., by the ECHA. Authorization: Authorization is required from ECHA for the use of substances of very high concern (SVHC). Restriction: Based on the results of the risk evaluation by the ECHA, production, use, etc., of substances can be restricted when necessary to reduce risk. 	<ul style="list-style-type: none"> In force. Pre-registration was completed in December 2008. Full registration is presently being conducted.
Energy-using Products (EuP) Directive	11.08.2005	To improve environmental performance throughout product lifecycles through design that considers the environment (ecodesign). Includes elements of energy-saving regulations.	<ul style="list-style-type: none"> General requirements: Requires environmental evaluation and formulation of an ecological profile (materials, waste products, etc.) for every stage of a product lifecycle. Specific requirements: Sets specific limits for standby power, etc., when a product is used. Stipulates the formulation of harmonized standards by EU standardization organizations (CEN, CENELEC, ETSI) based on the New Approach. Products named in implementing directives will be sold bearing the CE Mark after a declaration of conformity has been made. 	<ul style="list-style-type: none"> Implementing measures by product are presently being introduced. An Action Plan has been announced, and is presently under review in the co-decision procedure.
			<ul style="list-style-type: none"> All energy-using products. Products for which implementing measures have been formulated or are under review include boilers, water heaters, PCs, batteries, lighting, street lighting, air conditioners, set-top boxes, vacuum cleaners, refrigerators, etc. 	

Source: EU documents, etc.

(August 2009)

The life cycle thinking (LCT) introduced in the Integrated Product Policy (IPP) announced by the European Commission in February 2001 brought about a significant change in the orientation and design of environmental regulations. LCT seeks to reduce the burden on the environment at every stage in the life cycle of a product, from raw materials to manufacture, transportation and scrapping. Regulations designed on the basis of this way of thinking will have an effect throughout company supply chains. This means that the manufacturer of a finished product, upstream companies that supply parts to that manufacturer, and their upstream suppliers in turn will all be affected by the regulations as long as the EU is the destination for their finished products.

The basic principles of the new environmental regulations have also had a significant influence on the orientation and design of the regulations. There are four basic principles: (i) the “polluter pays” principle; (ii) the precautionary principle; (iii) the preventive principle; and (iv) the principle of rectification at source. Of these, the polluter pays principle places the responsibility of assessing the risk of chemical substances, treatment of waste products, etc., on companies, and has a direct effect on management methods and other practices. For example, the WEEE Directive obliges manufacturers to collect and dispose of waste products, based on this principle.

If these new types of regulations are able to make a significant contribution to the protection of the environment, then they should be welcomed from the perspective of sustainable development. However, if they place excessive restrictions on company activities, businesses will suffer. Environmental regulations are tending to become increasingly stringent. For companies, in addition to pushing ahead with modifications of product design and manufacturing methods in order to ensure that profitability does not decrease, it will be essential to actively participate in the formulation of rules by the EU to prevent regulations from becoming an impediment.

■ **The Waste Electrical and Electronic Equipment Directive and Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Directive expected to be revised extensively**

The WEEE Directive seeks to reduce the amount of waste electrical and electronic equipment through reuse, recycling, and energy recovery. To this end, EU member countries and companies are requested to establish collection and recycling systems for WEEE products. The RoHS Directive prohibits in principle the use of six substances (lead, mercury, cadmium, hexavalent chromium, polybrominated biphenyls (PBBs), and polybrominated diphenyl ethers (PBDEs)), and requires substitutes to be employed.

The WEEE and RoHS Directives went into effect in August 2005 and July 2006, respectively, and numerous problems have surfaced since then. Issues relating to the effectiveness of the regulations have been pointed out. For example, the rate of collection of WEEE under the regulations is only one third of the total amount of the corresponding equipment sold. In addition, EU member countries differ notably in the volume of collection of waste equipment. According to European Commission documents, in 2006 14.4 kg of waste equipment was collected per person in Sweden and 11.1 kg was collected in Denmark, countries which have been traditionally known for their high level of environmental awareness. By contrast, only 0.3 kg and 0.4 kg were collected per person in France and Portugal, respectively. In Romania, where technology take-up is still much lower, the figure was 0.1 kg per person.

In the case of the RoHS Directive, problems stem from ambiguous definitions of the products subject to the regulations. For companies, uncertainty as to whether their products are subject to the regulations is a major issue, and there have been frequent calls for clarification of the definition. In addition, problems in the enforcement of the regulations have been indicated, as there are numerous products that do not conform to the RoHS regulations.

The WEEE and RoHS Directives will be reviewed every four years. The European Commission prepared draft revisions in December 2008, mainly in order to rectify the problems discussed above, and has submitted them to the European Parliament and the European Council. The revision of the WEEE Directive scraps the collection target of 4 kg of waste equipment per person, replacing it with a collection target of 65 per cent of the averaged weight of all electrical and electronic equipment sold in the preceding two years. This can be seen as a measure to respond to the differences between member countries in terms of the volume of waste equipment collected per person. This target figure will become mandatory from 2016. In addition, target figures have been increased by 5 per cent each in the case of the energy recovery rate (originally 80 per cent), reuse rate (originally 75 per cent), and recycling rate (originally 75 per cent) stipulated for the products subject to the regulations. In addition, the RoHS Directive, based on article 95 of the EC Treaty (concerning harmonization within the European Community) has been used as a reference in an attempt to eliminate the differences between the lists of products subject to the WEEE regulations formulated by EU member nations. These differences originated from the fact that the regulations had previously been based on article 175 of the EC Treaty (dealing with environmental protection), enabling member countries to freely add products to their lists.

The revision of the RoHS Directive contains a list of products that defines the scope of the regulations. In addition to the eight product groups that were originally subject to the regulations, the revision adds WEEE Category 8 (medical devices) and Category 9 (monitoring and control instruments), which were previously not subject to the RoHS regulations. Moreover, in the initial stages of formulation of the revision, the introduction of four new prohibited substances (hexabromocyclododecane (HBCDD), di(2-ethylhexyl) phthalate (DEHP), butyl benzyl phthalate (BBP), and di-n-butyl phthalate (DBP)), in addition to the six already prohibited by the regulations, was considered, but this was set aside as a matter for future study. In other revisions, monitoring of products after they have reached the market has been enhanced, and products must now display a CE mark (a label indicating compliance with harmonized standards based on EU directives and regulations) issued by a conformity organization.

In future, the draft WEEE and RoHS revisions will go through the co-decision procedures (the EU procedures for the enactment of laws) and will officially go into effect. Corrections may be made to the revisions in the course of the co-decision procedures.

■ Regulation on Registration, Evaluation, Authorization and Restriction of Chemicals registration, the critical stage for business

REACH is a set of regulations that ultimately control the production and sale of chemical substances, requiring companies to register them and undertake safety evaluations. Companies which produce and sell one ton or more of chemical substances or which import the same quantity of chemical substances from outside the EU, are required to register them. In effect, REACH reverses the burden of proof on safety from legislators to industry.

The regulations went into effect in June 2007, and pre-registration of chemical substances was conducted between June and December 2008. In future, full registration will be required by deadlines which are set on the basis of the annual volume of production of the substance concerned.

REACH contains a set of rules that are entirely new to business, and many companies are confused as to how to respond. REACH differs from existing chemical substances regulations in a number of ways: (i) the regulations do not simply cover chemical substances, but also products in which those substances are employed, such as electrical and electronic products; (ii) existing chemical products are subject to the regulations as well as new chemical substances; (iii) registration is not by substance but by use; and (iv) the regulations include a supply chain obligation. This latter point requires upstream companies (chemical manufacturers) to provide information on chemical substances

to downstream companies (companies that produce compounds of two or more chemical substances), and in the opposite direction, product manufacturers to provide information on the use of chemicals in their products to the manufacturers of compounds and chemicals. As company supply chains become increasingly international, it will be no easy task to create information-sharing systems on a global scale.

REACH is also a new experiment for the European Commission, and it is fumbling its way forwards in putting the regulations into effect. For this reason, there are still numerous vague areas and frequent changes in the regulations, making it difficult for companies to respond.

In addition, companies outside the EU are unable to directly register chemical substances, and must request the EU-based importer (in many cases a subsidiary of a non-EU company), a consulting company or other company able to act as an “Only Representative” (OR) to conduct the registration procedures as a proxy. Problems could easily arise here when non-EU producers of chemical compounds purchase chemicals from chemical manufacturers in their own countries and export those compounds to the EU. In this case, unless the chemical manufacturer or the chemical compound manufacturer has an EU importer or an OR to act as a proxy in registering the chemical compounds, the manufacturer will be unable to export its product to the EU. If it seeks to continue exporting, it will have the choice of requesting the chemical manufacturers from which it obtains products to register the substances it produces; to register the substances itself; or to purchase chemicals from a chemical manufacturer that has already registered the substances it produces (irrespective of whether the company is based in the same country or not). As part of their marketing strategies, some Japanese chemical manufacturers have even pre-registered substances that they do not directly export to the EU, taking into consideration their relationship with clients who are chemical compound manufacturers.

For full registration, companies that manufacture the same substances are required to create Substance Information Exchange Forums (SIEFs), and to submit the required documents, including evaluations of the harmfulness or safety of the chemical substances concerned. According to the European Chemicals Agency (ECHA), with which chemical substances must be registered, more than 50,000 pre-SIEFs have been formed to coordinate the formation of SIEFs, and over 100 of them have more than 1,000 participating companies. It is therefore predicted that the operation of the system will not be an easy matter.

Against this background, some European companies have already hired toxicologists and conducted tests on the harmfulness of chemical substances, and are preparing to sell the data to other companies. By contrast, Japanese companies are expected to have a difficult time with the SIEFs. SIEFs are formed by competing companies, and while it is necessary for companies outside the EU to participate in SIEFs through importers (local subsidiaries) or OR, it will not be clear to these companies to what extent their opinions are reflected in the SIEFs, and they will find it difficult to proceed with negotiations on issues such as appropriate distribution of testing costs.

It is possible that REACH will cause companies to re-evaluate their business plans. If the cost of complying with the regulations is too high, some companies may cease exporting to the EU. There is also the possibility that EU-based companies that had previously purchased their chemical supplies from companies outside the region may begin to source their requirements from companies within the EU if non-EU companies are too slow in responding to the regulations.

■ **Eco-design regulations: a new EU initiative**

The Energy-Using Products (EuP) Directive seeks to contribute to sustainable development and the stable supply of energy by promoting consideration of the environment at the design stage of energy-using products (eco-design) and the achievement of increased energy efficiency. Energy-using products

are products that are dependent on energy resources, or products that produce, transfer, or measure energy. A wide range of electrical and electronic equipment is subject to the regulations, taking in boilers, PCs, photocopying machines, televisions, office lighting, air conditioners, and refrigerators. Japanese companies have developed sophisticated energy-saving technologies as a result of the “Top Runner” system, and skilful use of the EuP regulations, one of the purposes of which is to promote energy-saving products, which could enable them to boost their competitiveness.

The EuP Directive went into force in August 2005. This was the framework directive, which established general principles such as conditions and standards. Since then, concrete implementation measures for each product group have been defined in sequence. When these measures have been formulated, the process of establishing harmonized regulations based on the “new approach” concept (the formulation of regulations by EU standardization bodies) will begin. Companies will have to ensure that their products comply with these regulations, and will market products displaying the CE mark as proof of compliance.

To date, the European Commission has conducted product surveys to enable the formulation of implementing measures, and consultative forums have been held involving various stakeholders, including the European Commission and companies. Eco-design requirements for the standby and off modes of electrical and electronic household and office equipment were announced by the Commission in December 2008; for computer set-top boxes in February 2009; for household and office lighting, street lighting, and factory lighting in March 2009; and for external power supplies in April 2009.

Having successively introduced the implementation measures for the EuP Directive, numerous products and functions are under review at present. The demands of companies will be taken into consideration through consultation forums until the announcement of each implementing measure. Japanese companies, which have experienced difficulties in responding to the RoHS regulations, are actively lobbying the European Commission and other bodies through the Japan Business Council in Europe (JBCE) in order to influence the development of the rules. The JBCE has formulated joint guidelines and presented petitions to the European Commission in collaboration with DIGITALEUROPE (until March 2009 known as the European Information & Communications Technology Industry Association (EICTA)) and other EU and United States organizations. For example, the regulations state that power consumption in standby mode must be 0.5 watts or less, but this is not a realistic demand for companies. This regulation was initially intended to go into effect three years following the announcement of the implementing measures, but the JBCE lobbied for the regulations to go into effect within a period of three years dated from one year after the end of the period of grace, and this amendment was ultimately included in the implementing measures.

In the Sustainable Consumption, Production and Industry Action Plan announced by the European Commission in July 2008, it proposed that the scope of the EuP regulations be expanded from energy-using products to all energy-related products (ErP). Products which do not themselves use energy but indirectly affect energy consumption would become subject to the regulations. This would include, for example, products and materials used in building, such as windows and insulating materials, and products related to water use, including faucets and shower heads. In addition, the European Parliament is moving towards making all products subject to the regulations. It will be essential for companies to participate in the formulation of the rules by making their opinions heard through business organizations.

■ How should EU product environmental regulations be dealt with?

Companies are beginning to develop a greater understanding of EU environmental regulations. Environmental specialists at BUSINESSEUROPE, one of the major EU business associations, have indicated a change in the level of environmental awareness among EU companies. Companies

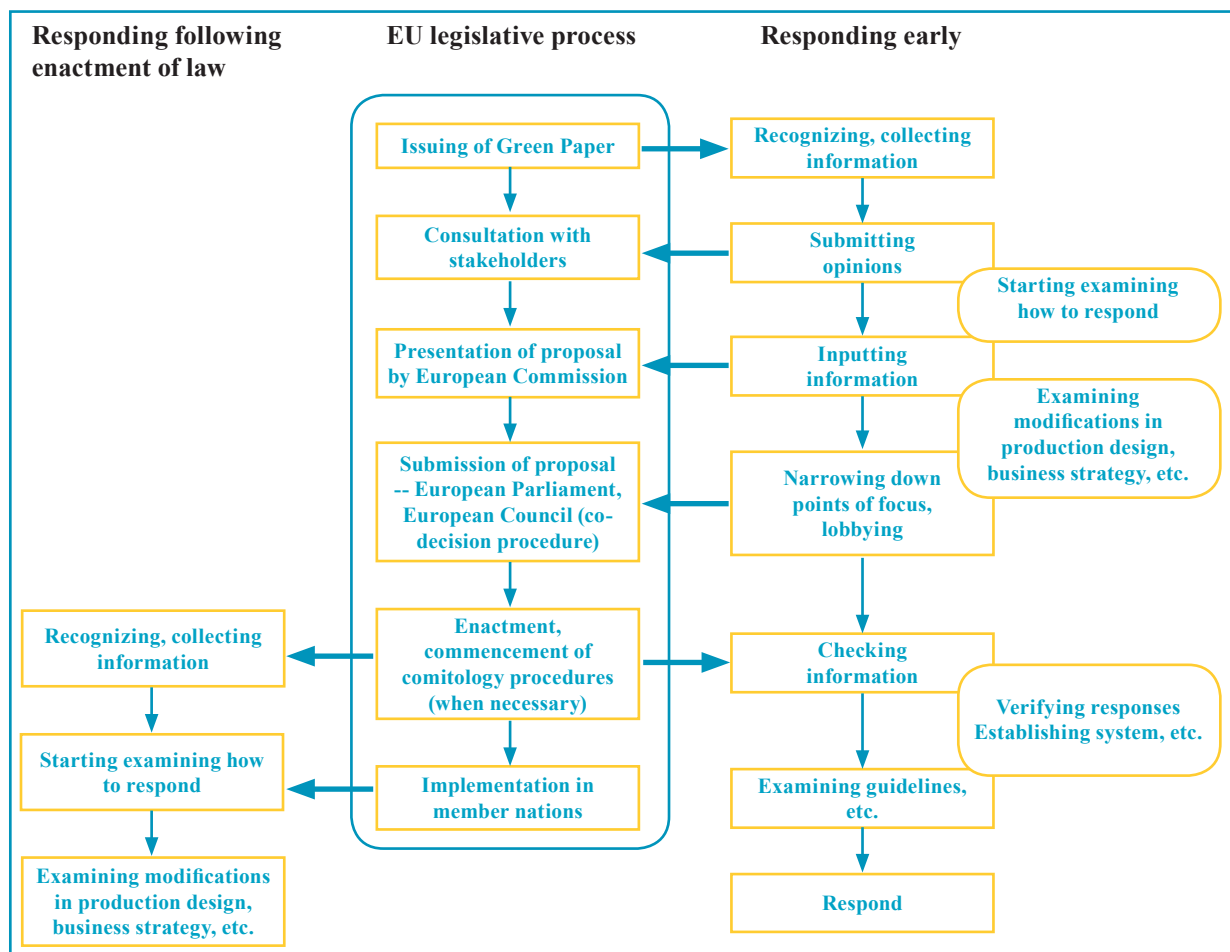
vigorously resisted the implementation of environmental regulations in the past, but today they are widely accepted.

However, situations in which companies are heavily burdened due to flaws in the legislation itself or in its administration can still be observed. Ambiguity has been indicated as one of the specific problems of EU legislation. There are cases in which the ambiguity in texts makes it difficult for companies to judge whether they comply with the regulations appropriately or not.

Communication between companies and the European Commission will be essential to dealing with issues of ambiguity and legislation that does not coincide with business realities. Officials of the European Commission Environment Directorate-General have stated that opinions and requests from companies are vital to the formulation of draft laws, and that companies should actively involve themselves in the process.

The EU policymaking process involves two procedures, co-decision and comitology (see Figure III-13 below). European Commission proposals regarding common market-related EU directives or regulations are ratified by the European Council and the European Parliament after going through the co-decision procedure.

Figure III-13. Illustrated examples of response by companies to the co-decision and comitology procedures



Note: The co-decision procedure is employed in the establishment of all EU laws and regulations; the comitology procedure is used in the case of the establishment of detailed regulations (implementing measures, etc.) by the European Commission.

Source: Formulated from Japan Business Council in Europe documents.

Decisions made by the European Commission go through the comitology procedure in which the details of laws established by the co-decision procedure are determined. In EuP, for example, the decision on the framework directive was made via the co-decision procedure, but the concrete implementing procedures for each product will be decided through the comitology procedure. Some companies have started gathering information from the comitology stage of the process, and are studying guidelines for response and potential business changes when the regulations are implemented in each EU member nation. This mode of response is too slow. What is required is for companies to start gathering information from the stage of publication of the green papers indicating the orientation of the European Commission, and to present petitions etc., at the stage of formulation of policy proposals by the European Commission (during preparatory surveys etc.) prior to the co-decision procedure, i.e., to work in tandem with the policymaking process.

■ EU environmental regulations spreading all over the world

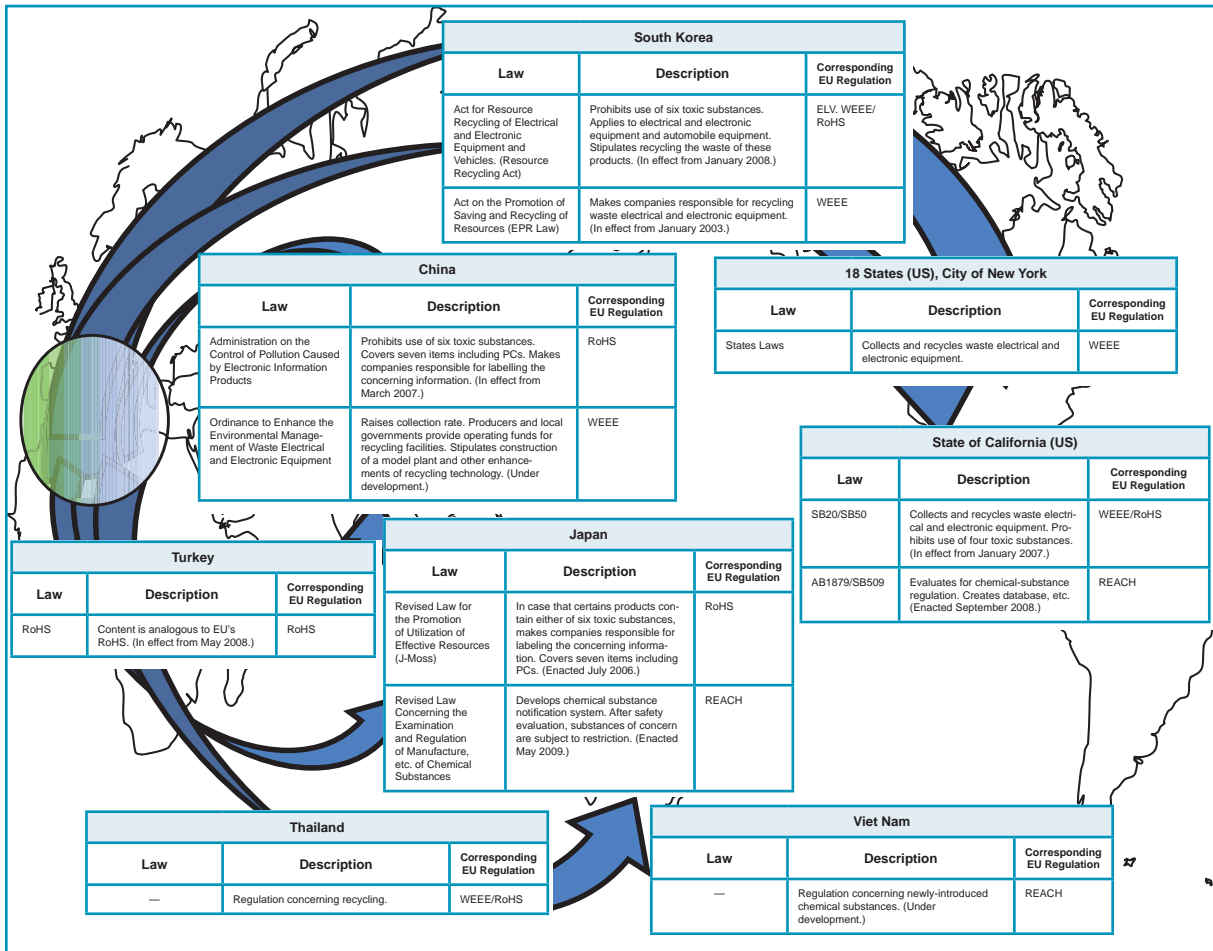
EU environmental regulations are spreading across the world. China, Japan, the Republic of Korea, Thailand, Turkey, the United States and Viet Nam have all introduced regulations resembling the RoHS, WEEE, and/or REACH regulations (see Figure III-14 below). At least three potential mechanisms can partly explain this tendency. The first mechanism is the diffusion of regulations through the conclusion of international conventions. The Action Plan emerging from the World Summit on Sustainable Development (the 2002 Johannesburg Summit) included a provision regarding the sound management of chemical substances and toxic wastes, with consideration of product life cycles. This resonates with the concept behind the EU supply chain regulations based on LCT. Later, the revision of the Japanese Act on the Evaluation of Chemical Substances and Regulation of their Manufacture, etc., was influenced by this provision of the Johannesburg Summit Action Plan.

The second mechanism is via trade. The EU boasts the largest market in the world, and can therefore influence countries outside the region through trade. Non-EU companies exporting to the EU manufacture their products to satisfy stringent EU standards. At the same time, they also apply these EU standards to products they manufacture for the domestic market or for markets other than EU countries, because costs would increase if they were to use different manufacturing methods for products aimed at different markets. In some cases, this will mean that the products manufactured to EU standards will be less price-competitive than equivalent products manufactured by other companies in accordance with more relaxed domestic standards. If this is the case, the national government and companies in the country will have an incentive to introduce regulations at the same level as the EU regulations. This incentive will be greater the stronger the trade relationship of the country with the EU. This way, EU environmental regulations may become transnational.

Diplomatic efforts conducted by the EU are the third way in which standards can be diffused. Officials of the Environment Directorate-General have indicated that it will be important to establish a level playing field on a global scale. *BUSINESSEUROPE* specialists also stress the need to promote global diffusion of environmental regulations. Working directly with countries outside the region, for example engaging in bilateral cooperation programmes in particular with developing nations, will be important to achieving this goal.

California is more environmentally aware than any other state in the United States, and under the leadership of Governor Schwarzenegger, the State Government has implemented a wide range of environmental policies, including the Electronic Waste Recycling Act (SB20) of September 2003, dealing with the recycling of electrical and electronic products. The Act was later partially revised to incorporate elements of the EU RoHS regulations, and SB20/SB50 came into effect in January 2007. The revised Act prohibits the sale of products, such as notebook computers, if they contain more than a specified quantity of the chemical substances that are subject to the regulations.

Figure III-14. The spread of EU product-targeted environmental regulations across the world



Source: Prepared based on various materials.

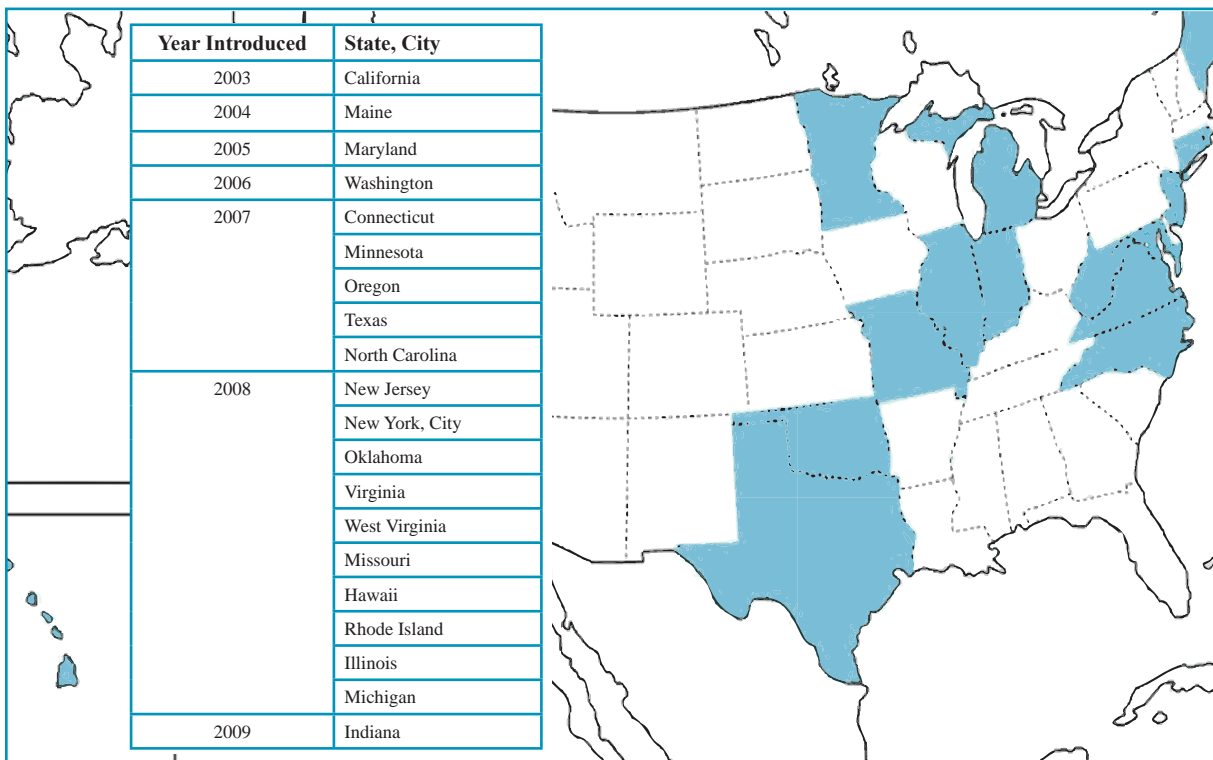
The introduction of EU environmental regulations is not limited to California. While regulations concerning the recycling of electrical and electronic products are presently limited at the federal level, their introduction is proceeding at the state and municipal levels (see Figure III-15 below). In almost all of these states and municipalities, there has been a partial introduction of the polluter pays principle, and laws have been established which place the burden of recycling televisions and computers on the manufacturers of these products.

However, the introduction of different regulations in each state will increase the burden on manufacturers. Intel, for instance, views increased costs for the formulation of documents, testing, etc., as a problematic issue if different states put different standards in place. For this reason, the electronics industry is lobbying the Senate for the introduction of unified federal regulations.

California has not restricted itself to SB20/SB50, but has also introduced a Green Chemistry Initiative (GCI) modelled on the EU REACH regulations. The purpose of the GCI is to impose regulations that will reduce the effect of toxic substances, not merely when a product is scrapped, but at every stage of its life cycle, including production and use. These regulations would therefore have an effect on the total supply chain. In a major step towards the realization of the GCI, bills AB1879 and SB509 were signed into law in September 2008. By January 2011, the California Department of Toxic Substances

Control (DTSC) must establish a system for the identification of chemical substances and chemical components in products, and for the evaluation of substances of concern, to enable the potential for exposure and the level of danger to the public to be reduced. The use of substances of concern will be restricted or prohibited. The DTSC will therefore collect information regarding chemical substances from all over the United States and the rest of the world, and will publish this information as an Internet database to make it available to consumers. Other states are watching trends in the GCI carefully, and there is a possibility that the initiative might in future spread throughout the country, as in the case of recycling regulations.

Figure III-15. The spread of laws throughout the United States regarding waste electric and electronic equipment



Source: JETRO Daily, National Electronics Recycling Infrastructure Clearinghouse.

The effect of EU environmental regulations is also to be seen in Japan. The first to be considered here is the Japanese version of the RoHS regulations. The Law for Promotion of Effective Use of Resources (1991) was revised in July 2006 to incorporate a requirement for “marking for presence of the specific chemical substances for electrical and electronic equipment” (J-MOSS). The six chemical substances subject to the regulations (lead, cadmium, etc.) are identical to those that are subject to the RoHS regulations. However, the Japanese regulations do not restrict the use of the specified substances as in the case of RoHS, but instead require a mark to be applied to products in which the substances exceed a predetermined level. The Japanese regulations are also less strict than RoHS, being limited to seven product categories (including personal computers and refrigerators) rather than almost all electrical and electronic products, as in the case of RoHS.

A Japanese version of the REACH regulations has also appeared. A draft revision of the Act on the Evaluation of Chemical Substances and Regulation of their Manufacture, etc., (1973) was approved by the Diet in May 2009, and is scheduled to go into effect within one year. The statement of the purpose of the revision references the agreements made at environmental meetings, such as the Johannesburg Summit, to minimize the effects of chemical substances on human beings and the environment, thus demonstrating the influence of international trends.

All chemical substances are subject to the revised Act on the Evaluation of Chemical Substances and Regulation of their Manufacture, etc., and companies which manufacture or import a specific amount or more of chemical substances (the figure of one ton is planned) will be required to notify the Government. Harmful substances among those reported will be subject to a safety evaluation, and, as necessary, the company will be asked to submit data regarding their level of toxicity. If, based on the results of the safety evaluation, any concerns exist as to the potential effect of the substances on living things, they will be nominated as designated substances and permission will be required for their manufacture or importation.

The revised Act, like the REACH regulations, is a mechanism that will promote the development of systems for information exchange throughout company supply chains. Although downstream companies (product manufacturers) have until now been able to put queries to upstream companies (chemical manufacturers), there has previously been no regular provision of information by upstream companies to downstream companies in Japan. The revised Act will effectively require the exchange of information in both directions.

In China too, interest in EU environmental regulations is increasing. Rapid industrialization is having a steadily worsening effect on its rivers and air quality, and in recent years the environment has come to occupy a more important position in terms of national policy.

In February 2006, China promulgated the Measures for Administration of the Pollution Control of Electronic Information Products and the law took effect in March 2007. This law is similar to the EU RoHS Directive, and is known as the “Chinese RoHS.” While the same six substances as are targeted by RoHS are the subject of these regulations, the Chinese measures have two distinct aspects. First, companies are required to display information concerning the regulated chemical substances on products when they exceed specific threshold values. Second, products listed in a “catalogue for priority controls” must receive China compulsory certification (CCC).

In addition, China is currently formulating a law on the collection and disposal of electronic waste. The objectives of this law are to increase the rate of collection of electronic waste, to operate recycling plants using funds provided by manufacturers and regional governments, and to improve recycling technology through the construction of model plants and other measures.

The regulations that have recently been introduced, or are scheduled to be introduced, around the world have for the most part been regulations concerning recycling or chemical substances. The characteristics of the individual regulations may vary, but they have all undoubtedly been significantly influenced by EU environmental regulations.

It is possible that in future the EuP regulations might also be diffused around the world, given that the EU is promoting a policy of international standardization of its regulations. The harmonized standards that will form the foundation of the EuP implementation measures are being formulated on the basis of the new approach by standards bodies such as the European Committee for Electrotechnical Standardization (CENELEC). The standards formulated in this process will be diffused around the world by a variety of means, including (i) international standards organizations (for example the International Electrotechnical Commission (IEC) and the International Organization for Standardization (ISO));

(ii) de facto through trade; (iii) mutual recognition agreements (MRA); and (iv) technological aid to developing nations.

The various laws and their associated procedures that have been influenced by EU environmental regulations and implemented around the world, all differ from one another and it is not the case that a company which complies with the EU regulations will therefore find it easy to comply with these other regulations. However, in many cases, the threshold values and the substances and products that are subject to the regulations are the same, or standards are not as stringent as those in the EU regulations. The information exchange systems developed to respond to the RoHS and REACH regulations will also be of practical value in responding to other regulations. For companies, it will be essential to prepare for international standardization by sufficiently adapting their products to EU regulations.

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CHAPTER IV

NON-TARIFF MEASURES: TIDYING UP THE INFORMATION FOR FUTURE ANALYSIS¹

1. Introduction

In the past 20 years, tariff barriers in international trade have been considerably reduced. The world average most-favoured nation (MFN) applied tariff on agricultural goods and that on industrial products both fell substantially from 21 per cent and 18 per cent in 1990 to 15 per cent and 9 per cent in 2008, respectively. This reduction in tariff barriers was largely due to unilateral trade liberalization, in particular in many developing countries; multilateral trade liberalization under the auspices of the WTO; and a significant increase in free trade agreements (FTAs) at the regional and bilateral level.

Table IV-1. MFN and preferential tariff rates (simple averages)

Country classification	Product classification	Product classification	1990	1995	2000	2005	2008
World	WTO HS Agricultural	Preferential tariff	16.74	19.30	15.32	13.39	10.64
	WTO HS Agricultural	MFN tariff	20.57	22.77	17.60	15.86	14.55
	WTO HS Industrial	Preferential tariff	13.50	13.77	10.06	7.42	6.96
	WTO HS Industrial	MFN tariff	17.54	16.31	12.05	9.45	9.33
	WTO HS Petroleum	Preferential tariff	8.71	15.34	8.71	6.01	5.07
	WTO HS Petroleum	MFN tariff	8.85	15.84	9.21	8.50	6.89
High-income Countries	WTO HS Agricultural	Preferential tariff	13.04	17.50	11.16	9.70	4.86
	WTO HS Agricultural	MFN tariff	11.89	20.32	13.86	14.33	8.19
	WTO HS Industrial	Preferential tariff	6.64	5.63	4.08	3.16	2.93
	WTO HS Industrial	MFN tariff	7.14	5.40	6.24	5.50	5.60
	WTO HS Petroleum	Preferential tariff	9.81	13.73	6.25	2.00	2.15
	WTO HS Petroleum	MFN tariff	11.62	18.00	14.31	3.77	3.91
Low and middle income economies	WTO HS Agricultural	Preferential tariff	23.53	19.80	17.05	15.13	13.33
	WTO HS Agricultural	MFN tariff	26.22	23.05	18.11	16.11	15.59
	WTO HS Industrial	Preferential tariff	22.48	17.33	12.40	9.13	8.59
	WTO HS Industrial	MFN tariff	24.78	18.00	13.06	10.20	10.00
	WTO HS Petroleum	Preferential tariff	8.24	16.71	9.78	7.44	6.23
	WTO HS Petroleum	MFN tariff	7.56	15.91	8.52	9.50	7.48

Source: World Integrated Trade Solution.

¹ This chapter was prepared by the UNCTAD secretariat.

As tariff barriers were coming down, rising non-tariff barriers started to take centre stage in concerns over market access. Exporters, especially those in developing countries, feel that major economies are now increasingly resorting to non-tariff measures as their preferred trade policy instruments, which may be used or abused for protectionist purposes.

Concerns over the potential impact on trade of non-tariff measures (NTMs) were discussed at the UNCTAD XII meetings (Accra, 20–25 April 2008), where member States declared that “Meaningful trade liberalization will also require addressing non-tariff measures... where they may act as unnecessary trade barriers. ... International efforts should be made to address non-tariff measures and reduce or eliminate arbitrary or unjustified non-tariff barriers”. In this regard, they requested UNCTAD to “Address the trade and development impact of non-tariff measures”.²

In general, NTBs are trade policy instruments that are designed and implemented with the intention of restricting import flows into a market by reducing quantities or changing the prices of goods traded. Measures that control the quantity of imports (e.g. quotas) or import prices (e.g. minimum import prices) are clear examples.

NTMs, on the other hand, include a much wider variety of policy instruments which directly or indirectly affect market access conditions, or the cost of imports, even though the initial purpose of such measures is not to regulate trade flows. A regulation on product quality and safety standards is a good example. The objective of the measure is to protect consumer safety, but as the regulation applies to both domestic and imported products, it may affect import flows as a by-product.

Complications arise when a NTM, such as a technical requirement on a product, is arbitrarily applied as a strategic instrument. Such a measure would give domestic producers, which already have internalized the compliance costs in their production, with an artificial price advantage over foreign producers. The country applying the measure can argue that the regulation is fully justified for the purpose of consumer protection. In order to minimize negative trade effects from such arbitrary use of NTMs, there exist multilaterally agreed rules, such as those stipulated in the SPS and TBT Agreements and other multilateral trade agreements under the WTO. However, proving the trade-restrictive intention of such measures is complex, time-consuming and costly, as has been proven in a large number of cases brought to the WTO Dispute Settlement Body (e.g. cases concerning beef treated with hormones and genetically modified organisms).

(1.1) Non-tariff measures lack a concise definition

Evaluating the effect of NTMs on international trade flows is not straightforward. As mentioned above, the impact on trade of an NTM may be just a by-product, and in many cases it is not easily justifiable to use only the existence of the NTM concerned as a solid explanatory variable. Moreover, the trade impact of an NTM, if any, can be positive or negative. That is, an NTM may act as an import barrier only to a certain group of exporters. For instance, some exporters may perceive a certain sanitary and phytosanitary (SPS) measure applied to an agricultural product by an importing country as too stringent for them to be able to export into that market, while others with the skills to meet such a requirement see the regulation as a competitive advantage. Most importantly, there is no comprehensive data set yet on NTMs applied at a product level. Hence, at this stage, it is not possible to conduct a systematic evaluation of the impact on trade of certain NTMs and quantify their effects in a credible manner.

In order to analyze the trade and development impact of NTMs appropriately and systematically, we need to have: (i) clarification of the type of NTMs that should be considered in trade impact analysis;

² UNCTAD XII Accra Accord, paras. 73 and 96 available at www.unctad.org/en/docs/iaos20082_en.pdf.

and (ii) a comprehensive database that contains information on NTMs at a product level for as many countries as possible.

Since the early 1980s, UNCTAD has been actively involved in research and data collection on NTMs. At that time, UNCTAD was the first body to set up a customized coding system of trade control measures (TCMCS) for systematically classifying and collecting data on NTMs.³ TCMCS grouped NTMs into six core categories according to their nature: (i) price control measures; (ii) finance measures; (iii) automatic licensing measures; (iv) quantity control measures; (v) monopolistic measures; and (vi) technical measures. These were divided into further subcategories in accordance with the types of measure under consideration. Data on NTMs has been collected in close collaboration with a number of regional organizations.⁴

Concurrently, UNCTAD developed the Trade Analysis and Information System (TRAINS) database, which subsequently grew into the most complete international collection of publicly available information on NTMs applied at a product level, in accordance with the Harmonized Commodity Description and Coding System (HS) classification.⁵ Later, in collaboration with the World Bank, UNCTAD-TRAINS was made accessible to researchers through the World Integrated Trade Solution (WITS) software application. The UNCTAD-TRAINS database contains a brief description of NTMs affecting a product, including affected or excluded countries and footnotes on the exact product coverage, where available. It does not, however, provide any measurement of the restrictiveness of any specific measure.

While UNCTAD-TRAINS remains the most comprehensive database on NTMs, there are two caveats concerning the usefulness of the database in addressing NTM issues. First, the data is collected according to TCMCS, but its classification is now somewhat obsolete – it does not adequately and accurately cover all forms of NTMs that exist in today's international trade activities. Second, the database has not been regularly updated since 2001.

(1.2) A multi-agency effort to collect information on non-tariff measures

Against this background, in 2006 the Secretary-General of UNCTAD established the Group of Eminent Persons on Non-Tariff Barriers (GNTB), which consisted of six leading economists and policymakers in this field (see Box 3 below). The GNTB was requested to discuss feasible ways to streamline cluttered information on NTBs, and systematically collect data on them, with a view to making it available for quantitative analysis of trade impacts.

At its first meeting in July 2006, the GNTB set guidelines for technical work which included the definition, classification, and collection of data on NTBs. To facilitate this work, the GNTB set up a multi-agency support team (MAST), comprising experts dealing with the substantive analysis of NTMs from the Food and Agriculture Organization of the United Nations (FAO), the International Monetary Fund (IMF), the International Trade Centre UNCTAD/WTO (ITC), the Organisation for Economic Co-operation and Development (OECD), the United Nations Industrial Development Organization (UNIDO), the World Bank and the WTO.

³ The entire TCMCS list is in the UNCTAD Directory of Import Regimes, Part I: Monitoring Import Regimes (UNCTAD/DMS/2/Rev.1 (Part I)), 1994.

⁴ These include the Asociación Latinoamericana de Integración (ALADI), the Secretaría de Integración Económica Centroamericana (SIECA) and the South Asian Association for Regional Cooperation (SAARC), as well as the Inter-American Development Bank (IDB).

⁵ See also http://r0.unctad.org/trains_new/tcm.shtm.

The activities of MAST were aimed at:

- Providing a clear and concise definition of NTBs and NTMs;
- Developing a classification system of NTMs to facilitate the data collection process and analysis;
- Devising ways to efficiently collect information on NTMs, taking into account the existing mechanisms for collecting specific elements of NTMs by each member agency;
- Providing guidelines for the use of the data, including the creation of a database containing information on NTMs at the product level, according to the HS classification.

In 2006-2009, MAST held five meetings and succeeded in meeting these objectives.

The following sections report on the outcomes of MAST activities, namely: (i) the agreed definition of NTMs and a framework for classifying them; (ii) a methodology for systematically collecting data and information on NTMs; (iii) interim findings from the data collected so far; and (iv) the way forward and planned future activities.

Box 3: The Group of Eminent Persons on Non-Tariff Barriers and the multi-agency support team

The GNTB, comprised of six eminent personalities,* met for the first time in Geneva on 12 July 2006 with the following terms of reference:

- (a) To make recommendations on the definition, classification and quantification of non-tariff barriers (NTBs);
- (b) To define elements of and draw up a substantive work programme relating to the collection and dissemination of NTB data, with a special focus on issues and problems faced by developing countries;
- (c) To provide guidance on the further strengthening of the UNCTAD-TRAINS database;
- (d) To review and make recommendations on capacity-building and technical cooperation activities in favour of developing countries in the area of NTBs;
- (e) To provide policy advice on inter-agency collaboration and coordination on activities relating to NTBs;
- (f) To promote cooperation with the donor community;
- (g) To prepare comprehensive recommendations on follow-up to its work.

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2. New and comprehensive classification of non-tariff measures

(2.1) The definition of non-tariff measures

The first task for MAST was to agree on a broad definition of NTMs.

The initial focus of the GNTB was to identify ways for evaluating the impact of non-tariff barriers to trade. However, in the MAST discussions, it became clear that assessing a priori if an NTM had protectionist intent or discriminatory effects was impossible, and that non-tariff barriers (NTBs) were best kept a subset of NTMs.

Consequently, MAST agreed that the definition of NTMs as follows:

*“NTMs are policy measures, other than ordinary customs tariffs, that can potentially have an economic effect on international trade in goods, changing quantities traded, or prices, or both.”*⁶

That is, NTMs in a broad sense refer to all types of policy instruments that are not tariffs and are applied to imported products. Such instruments may or may not affect trade flows. Also, such measures may affect the trade of only a particular group of exporters. All in all, identifying the degree of trade restrictiveness of an NTM would be possible only after a detailed comparative analysis of NTM data across countries.

With this definition, MAST agreed to leave open the judgment of whether a given measure constitutes a trade barrier and whether the measure has protectionist or discriminatory intent, until a meaningful amount of information on NTMs has been collected.

The next stage of MAST activities was to set up a framework for classifying NTMs. The most logical step, it was agreed, was to draw upon the existing classification under the UNCTAD TCMCS.

In this context, MAST decided to review and expand the categories of NTMs to be included in the new classification system. In creating categories of NTMs, the team agreed to take into account both the potential economic significance of a specific measure, as well as the feasibility of collecting data on it. As a result, the structure of the classification system was substantially modified, and a number of new categories were added.

(2.2) The contents of the new classification of non-tariff measures

The new classification follows a hierarchical “tree” structure, where NTMs are differentiated according to 16 “branches” or chapters, denoted by alphabetical letters from A to O. Each branch contains “sub-branches”, which in turn consist of “twigs”, followed by “leaves” (see Figures IV-1 and IV-2 below). The new classification system is set out in annex 3.

⁶ In practice, exporters may face NTMs that have been set up outside the framework of government policies, e.g. voluntary application of standards that are often based on business-to-business agreements. Information on voluntary measures can be collected only by surveys conducted on importers/exporters.

Figure IV-1. The measures and chapters of the final classification of non-tariff measures

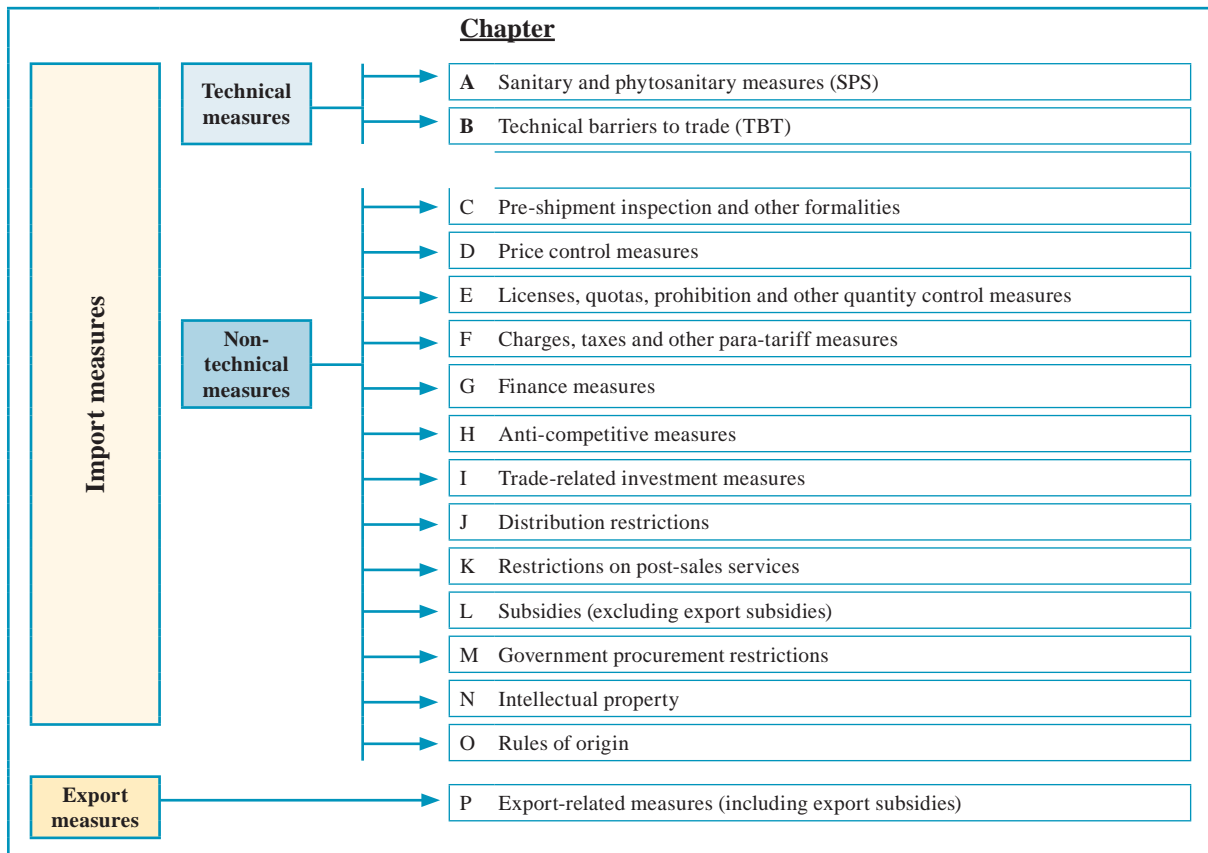
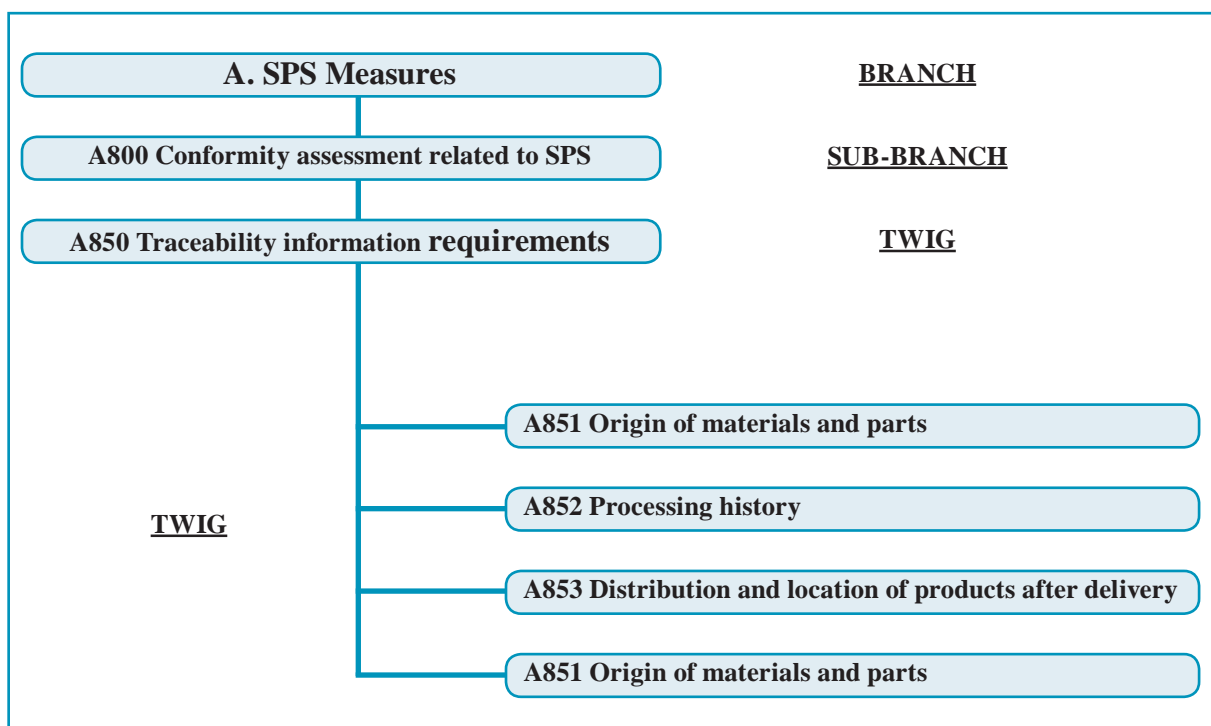


Figure IV-2. Example of the structure of the new classification



The new NTM classification maintains the majority of categories included in the original TCMCS. In addition, new categories were created which include SPS and TBT measures; trade-related investment measures; distribution restrictions; restrictions on post-sales services; subsidies (other than export subsidies); measures related to intellectual property rights; rules of origin; and export measures.

The following describes the contents of each category in the new NTM classification.

Categories A and B - sanitary and phytosanitary measures and technical barriers to trade

Under the original TCMCS, SPS and TBT-related measures were either categorized as “sensitive product measures”, which were added as a subcategory of various types of NTMs according to the objectives of the measure (for example, protection of safety, human health, animal health and life, plant health, environment and wildlife). Others were included in the technical regulations category, which covered measures such as product characteristic requirements; marking requirements; labelling requirements; packaging requirements; testing, inspection and quarantine requirements; information requirements; pre-shipment requirements; and special customs formalities.

Given increased concerns over the impact on trade of SPS and TBT measures in the current environment, the new NTM classification created independent “branches” for SPS and TBT measures, and covers more detailed measures, classified under nine sub-branches.

The SPS measures in the new NTM classification cover measures such as prohibition/restriction due to SPS reasons; labelling and packaging requirements; hygienic requirements; and conformity assessment requirements. A requirement concerning “traceability” was also added as, following the outbreak of bovine spongiform encephalopathy (so-called mad cow disease), a large number of countries had recently started to request disclosure of information in order to be able to trace the stages of production, processing and distribution of beef.

The TBT measures include regulations on the technical specification of products, such as product quality or performance requirements and conformity assessment thereof, as well as regulations concerning production processes, such as the requirements of a minimum labour standard. The TBT measures in general are applied to industrial products, but they may also be applied to food products, if the measure is not for food safety.

SPS and TBT measures can act as a significant trade barrier when arbitrarily applied with protectionist intent. Such an arbitrary use is prohibited under the WTO agreements on SPS and TBT, but proving the protectionist intent under the guise of a legitimate concern such as the protection of consumer health is, as noted above, extremely difficult.

It is also important to note that SPS and TBT measures can influence trade flows negatively as well as positively. Negative impact on exports comes largely from the extra costs incurred when meeting certain standards set by trade partners, which can be prohibitive for small-scale exporters. On the other hand, efforts to meet safety standards and requirements in importing countries can encourage investment in production processes, thus increasing the productive capacity of exporters, which is a prerequisite for sustainable expansion.

The measures which fall into “branches” C to H may be termed “traditional” NTMs, in the sense that they are applied directly and only to imported products with clear market-protection intent. These categories were carried forward from the original TCMCS and include, ordered according to their category codes: (C) pre-shipment inspection; (D) price control measures; (E) quantity control measures, including associated import licensing measures; (F) para-tariff measures; (G) finance measures; and (H) anti-competitive measures.

Category C - pre-shipment inspection and other formalities

Pre-shipment inspection is a compulsory control, conducted in the exporting country prior to shipment by an independent inspection agency mandated by the authorities of the importing country, to check the quality, quantity and price of goods to be exported. This category also includes direct consignment, which requires that goods for export are loaded and shipped directly from the country of origin (mainly used to ensure preferential trade treatment). Such a measure may be of a trade-restrictive or discriminatory nature when, e.g. the inspection is unreasonably delayed or made in a non-transparent and/or non-credible manner. The WTO Agreement on Pre-shipment Inspection provides rules to minimize such incidents by e.g. obliging the government of the importing country to ensure that such inspections are made in a reliable, transparent and non-discriminatory manner.

Category D - price control measures

This category covers measures implemented to control the price of imported articles. The purpose of such actions may be to support the domestic floor price of a product (e.g. minimum import prices); maintain price stabilization of a product in the domestic market (e.g. variable levies); or temporarily protect a domestic industry from surges of cheap imports (e.g. safeguard duties). Anti-dumping and countervailing measures, the purpose of which is to counter any “unfair” pricing or production practices of an exporting country, are also included in this category. Some price control measures (e.g. variable levies on agrifood products) are formally prohibited or are regulated by various WTO agreements.

Category E - licences, quotas, prohibition and other quantity control measures

Measures in this category aim to limit the quantity of imports of a product, regardless of whether they come from different sources or one specific supplier. These measures can take the form of restrictive (non-automatic) import licensing; fixing of a predetermined quota vis-à-vis global or bilateral exporters; seasonal or temporary prohibition; voluntary export restraint arrangements; or quantitative safeguard measures. Many types of quantity control measures are formally prohibited or are regulated by various WTO agreements.

Category F - charges, taxes and other para-tariff measures

This category refers to measures that increase the cost of imports in a similar manner to customs duties, i.e. by a fixed percentage of the unit price of the import or by a fixed monetary amount. Such measures include customs surcharges, additional taxes (e.g. tax on foreign exchange transactions, import licence fee, statistical tax) and internal taxes that apply to both domestic and imported products (e.g. sales tax, excise tax). The General Agreement on Tariffs and Trade (GATT) under WTO stipulates that the application of such fees and charges should not represent indirect protection for domestic products, taxation of imports, or export for fiscal purposes.

Category G - finance measures

Finance measures administered by the government of an importing country are intended to regulate access to and cost of foreign exchange for imports, and define the terms of payment. For instance, an advance payment requirement obliges an importer to deposit a certain percentage of the value of the import transaction, or to pay whole or a part of the customs duties prior to receipt of the imported goods. Other measures in this category include regulations on official foreign exchange allocation and regulations concerning the terms of payment (e.g. regulating the

amount of advance payment to be made to the exporting country). Finance measures were quite common in the past among developing countries, but they have become less common in recent years following liberalization and deregulation of the global financial market.

Category H - anti-competitive measures

This category includes measures that grant exclusive rights or special preferences/privileges to import or export to one or more limited group/s of economic operators. A good example is a regulation that a product (e.g. salt, tobacco) can be imported only by a state trading administration or a sole importing agency. Another is a requirement of compulsory use of national services, such as national insurance or national transport, when importing or exporting goods.

In addition to the traditional NTMs listed above, the new TCMCS introduces the following categories: (I) trade-related investment measures (TRIMs); (J) distribution restrictions; (K) restrictions on post-sales services; (L) subsidies; (M) government procurement restrictions; (N) measures related to intellectual property rights; and (O) rules of origin. Measures in these categories do not target any existing imports per se, but when implemented, they can limit opportunities to trade, or could be used as a hidden barrier to imports. MAST decided to include these measures in the new NTM classification, but also recognized the difficulties in collecting data on these measures at a product-specific level.

Category I - trade-related investment measures

This category refers to measures applied to foreign investors in a country, with a view to encouraging the use of domestically available, rather than imported, materials and components in their products. Local content requirements for instance set a minimum level of locally made components to be used by investors, while trade-balancing measures limit the purchase or use of imported products to an amount related to the volume or value of local exports. Under the WTO Agreement on Trade-related investment measures (TRIMs), these measures are considered “inconsistent” with the WTO/GATT principle of national treatment of imported products and general elimination of the quantitative restrictions agreement (GATT, articles III and XI).

Category J - distribution restrictions

Certain measures restrict distribution of goods within the importing country. These include geographical restrictions to limit the sale of goods to certain areas within the importing country, or restrictions on re-sellers, which limit the sales of imported products by designated retailers. These restrictions are closely related to regulations on distribution services that fall under WTO GATS.

Category K - restrictions on post-sales services

This category refers to measures that restrict producers of exported goods in providing post-sales services in the importing country, e.g. requiring after-sales service on imported TV sets to be provided by local service companies and not the original producer.

Category L - subsidies (other than export subsidies)

Government subsidies to a production structure, e.g. a particular industry or company, may be given in the forms of financial payment, financial loans at preferential rates, or price support. Subsidies provide domestically produced goods with a cost/price advantage within the country, thus indirectly restricting imports. When a major economy exports a subsidized product, it can

distort the world market price. At this stage, this category is left for further discussion and analysis within MAST in order for it to be appropriately subdivided.

Category M - government procurement restrictions

This category refers to regulations that would encourage (or oblige) government agencies to purchase goods that are locally produced. This measure was included in the new NTM classification because of its potential economic impact – it is estimated that the size of the government procurement market can amount to 10-15 per cent of a country's GDP. Hence this measure, i.e. preference for domestic products over imported products, can restrict the overall import flow of a country, although it may not be easy to analyse product-specific impacts.

Category N – measures related to intellectual property rights

Measures in this category are related to intellectual property legislation on issues such as patents, trade marks, industrial designs, copyright, and geographical indications. Protection of the intellectual property itself is not considered a barrier to trade, but improper use of such a right could create barriers to legitimate trade. The TRIPs Agreement provides that procedures concerning the enforcement of intellectual property rights should be fair and equitable, and should not be unnecessarily complicated or costly, or entail unreasonable time limits or unwarranted delays (part III, section 1, article 41).

Category O - rules of origin

Rules of origin cover laws, regulations and other administrative actions that determine the origin of a traded product. Rules of origin are used in implementing trade policy instruments such as anti-dumping and countervailing duties, origin marking, and safeguard measures vis-à-vis a particular exporter of the product concerned. Rules of origin can create a barrier to trade through increasing the costs of exports arising from, inter alia, the efforts of exporters to conform to the rules (e.g. making use of more expensive domestic products rather than cheaper imported products), or from meeting administrative requirements (e.g. collecting and completing the required documentation). In a preferential trade agreement, the rules of origin are used to prevent trade deflection, i.e. preventing third-country exporters from unjustly profiting from preferential treatment. There is a view that the methods used to determine origin, particularly of industrial products, has become impractical today as so many goods are produced in global production-sharing networks. Also, under a preferential trade arrangement, if the rules of origin are too stringent this can cancel out the benefits of preferential treatment, as has been suggested by the low utilization by least-developed countries of the preferential treatment provided under the EU Everything-But-Arms Initiative. The WTO Rules of Origin Agreement requires WTO members to ensure that their rules of origin do not have restricting, distorting or disruptive effects on international trade, and aim for common (“harmonized”) rules of origin among all WTO members, except in certain kinds of preferential trade. This objective has, however, not yet been achieved.

Finally, MAST agreed to add export-related measures, i.e. those that are applied by the governments of exporting countries, to the new NTM classification, since the end result of such measures is often an increase in the cost of export (thereby reducing export competitiveness) or reductions in export opportunities.

Category P – export-related measures

Measures in this category include those that restrict the quantity of exports, such as export licences, quotas, and prohibitions. Such measures are formally prohibited by GATT 1994, but may be applied under specific circumstances, e.g. to prevent critical shortages of foodstuffs in the exporting country, as identified in article XI of GATT 1994. Other measures covered in this category include export price control measures, export taxes and charges, and export subsidies.

Many NTMs included in the new classification are subject to various WTO rules (see Table IV-2 below). These multilateral rules aim to prevent such trade policy instruments from being arbitrarily applied with pure protectionist intent, by limiting the circumstances in which such measures can be used; regulating the application procedures; and ensuring transparency of information from WTO members. MAST held a comprehensive discussion as to whether to maintain NTMs that are strictly prohibited under the WTO rules, as the incidence of such measures being used should become more and more infrequent. In this context, MAST agreed to include these measures in the classification, given that the final objective was to create a comprehensive database which would be extremely useful for evaluating the impact of such measures on trade flows.

Table IV-2. NTMs and the corresponding WTO rules

NTM measures in the classification	Relevant WTO rules
C. Pre-shipment inspection and other formalities	WTO Agreement on Pre-shipment Inspection
D. Price control measures	WTO Agreements (Anti-dumping, Countervailing; Safeguards); General Agreement on Tariffs and Trade (GATT) 1994 article VI (<i>anti-dumping and countervailing duties</i>),
E. Licences, quotas, prohibition and other quantity control measures	WTO Agreements (Import Licensing Procedures, Safeguards, Agriculture); GATT 1994 articles XI (<i>general elimination of quantitative restrictions</i>) and XIII (<i>non-discriminatory administration of quantitative restrictions</i>)
F. Charges, taxes and other para-tariff measures	GATT 1994 articles III (<i>national treatment on internal taxation and regulation</i>) and VIII (<i>fees and formalities connected with importation and exportation</i>)
H. Anti-competitive measures	GATT 1994 article XVII (<i>state trading enterprises</i>)
I. Trade-related investment measures	WTO Agreement on Trade-Related Investment Measures
J. Distribution restrictions	General Agreement on Trade in Services (GATS)
K. Restrictions on post-sales service	General Agreement on Trade in Services (GATS)
L. Subsidies	GATT 1994 article XVI, WTO Agreement on Subsidies and Countervailing Measures
M. Government procurement	WTO Plurilateral Agreement on Government Procurement
N. Intellectual property	WTO Agreement on Trade-Related Intellectual Property Rights
O. Rules of origin	WTO Agreement on Rules of Origin
P. Export-related measures	GATT 1994 article XI, Agreement on Agriculture

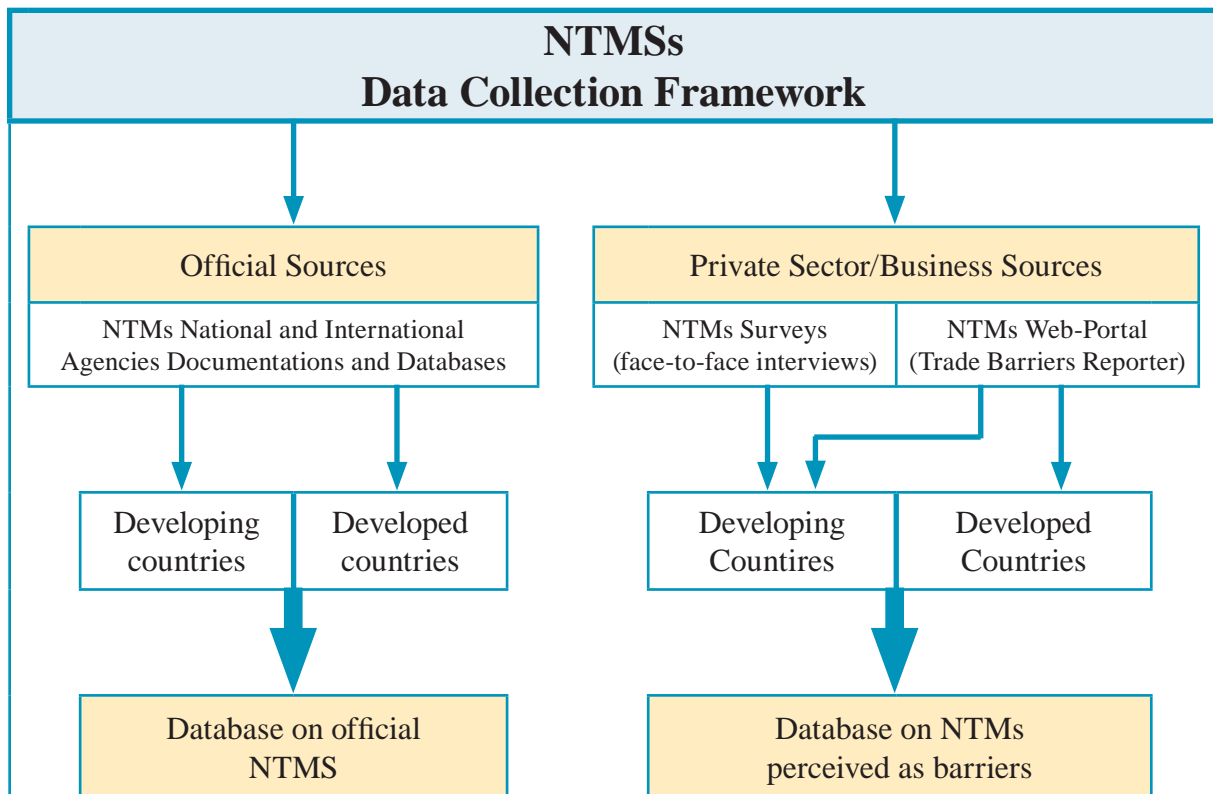
3. Methodologies for data collection

With a new classification of NTMs established, the next stage for MAST was to identify a plausible framework for systematically collecting data, which would lead to the establishment of a comprehensive database on NTMs.

An obvious data source on NTMs is the official government documents that apply such policy instruments. But data collected in this way would not be sufficient to indicate the degree of influence over trade that they could accumulate. In order to identify the impact of NTMs on trade flows in a comprehensive fashion, data and information should also be collected directly from private sector exporters and importers. In this respect, MAST agreed to collect data and information on NTMs

through two different channels: from official sources and from private sector exporters. Figure IV-3 below summarizes the data collection framework.

Figure IV-3. Framework for collection of data on NTMs



(3.1) Information on NTMs from official sources

The first task was to identify all possible data sources. All types of NTMs included in the MAST classification are policy instruments applied by governments. Hence the obvious source of NTM information is the legislation (laws, decrees and related administrative instructions) of each country.

In some cases, information on NTMs applied in a country (or a territory) can be obtained from one single source. For example, the EU Commission provides a web-based database on various requirements for products imported into EU territory (the Export Helpdesk for developing countries) and the Asociación Latinoamericana de Integración (ALADI) collects NTM information for its members, including Mexico. But these are rare cases. In general, collecting information on the NTMs applied by a country is not a simple task, as this legislation is dispersed among ministries and specialized agencies according to their competences, such as trade, agriculture, industry, health, and so forth.

Given this situation, MAST came to an agreement that information should first be drawn from existing databases and data collection efforts by international (or regional) organizations. For instance, the WTO holds a database which contains information on NTMs, in the form of notification that WTO members submit under its 300-plus notification requirements in various WTO agreements such as on SPS and TBT measures, subsidies, safeguards, customs valuation, rules of origin, TRIMS, etc.

In addition, the FAO Codex Alimentarius Commission provides information on existing SPS measures applied by countries, as well as information on relevant international standards, under the International Portal for Food Safety, Animal and Plant Health (www.ipfsaph.org). Information on subsidies provided by developed economies to their agricultural sectors can be accessed through OECD and the IMF can provide data on trade-related taxes and exchange rate policies.

It should be noted, however, that the quality and coverage of data on NTMs vary greatly across agencies and organizations. Taking WTO notifications as an example, the scope and quality vary widely across countries and subjects, and there is always a need to carefully examine the comprehensiveness of some of the notifications.

Data collected from various organizations can subsequently be used as an indicator for identifying the official sources of information on NTMs in each country.

UNCTAD and the WTO/UNCTAD International Trade Centre (ITC) have started to collect data on NTMs in major markets, including Canada, China, the EU, Japan, Republic of Korea, Mexico, Malaysia, Russia, Taiwan Province of China, Turkey and the United States. UNCTAD is also investigating the possibility of cooperating with a number of national and international institutions which maintain NTM-related databases so as to be permitted to replicate or create linkages to part of their data.

MAST experience to date suggests that the complexity of collecting official data varies from country to country. The time required for collecting the data, and the quality and comprehensiveness of the data, are largely contingent upon the availability of existing national and/or regional databases, and the format in which data is stored within several ministries at the national level.

An additional layer of complexity often arises from the fact that there are multiple sources of similar data. For example, it is not uncommon to have multiple institutions issuing overlapping regulations on the same set of products. In some cases the information could be accessed free of charge in an electronic format; in other cases regulations were only available in a hard format and/or for a fee, or subject to formal authorization.

Another problem is that the agencies that are currently repositories of data on NTMs have adopted different classification systems. Also, information available from official sources does not always provide a detailed list of products that are affected by the NTMs concerned. A substantial effort is required to standardize and harmonize the data collected from official sources in accordance with the new MAST classification and the Harmonized Commodity Description and Coding System (HS).

MAST also agreed that, at this stage, official government information will not be collected for the categories of government procurement, subsidies, intellectual property rights, distribution restrictions, and restrictions on post-sales services, as information on these categories is likely to be poor or very costly to collect. Data for these categories will be collected only through private sector complaints and/or surveys.

(3.2) Information on NTMs from the private-sector sources

With a view to collecting information on how a particular NTM affects exporting activities in developing countries, in January 2008 UNCTAD started the Pilot Project on Collection and Quantification of Non-Tariff Measures (NTMs) Database in five developing countries: Brazil, Chile,

India, the Philippines and Thailand.⁷ Subsequently, the ITC joined in this initiative and the project activities were extended to Tunisia and Uganda.⁸

In order to proceed, a country reporting officer (CRO) and a specialized agency were selected for each country, to lead the pilot project in that country. The CRO acted as the national focal point in the pilot country and was responsible for country-related activities including the identification, collection and monitoring of official data.

Data was collected from various national sources, e.g. Ministry of Trade, Ministry of Agriculture, and National Standards Body. In relation to the data collection effort, the CRO also tested the feasibility of setting up a network of national data providers to enable sustainable data collection. In Brazil and Chile, official data was also drawn from the database of ALADI, which was converted by UNCTAD to the new classification.

In addition to collecting data, the pilot project aimed to support developing countries in building the technical capacity to collect and analyse information on NTMs that are affecting their own exporters. Under the project, initial training sessions were organized for the CRO, national partner institutions, officials of relevant ministries, chambers of commerce and other stakeholders, who were all closely involved in the implementation of the pilot project.

It was also hoped that the pilot project would help MAST to test and validate the new classification of NTMs, and the methodology for data collection. At the same time, the pilot project helped MAST quantify the resources and costs involved in collecting NTM data, and gather experience so as to better recommend next steps for achieving broader NTM data coverage.

The pilot project consisted of the following activities: (i) conducting a company-level business survey (undertaken by a specialist survey agency) to collect data and information on NTMs facing exporters and importers in the country concerned; and (ii) identifying the sources for the official documents and information (domestic rules and regulations) on NTMs applied by the country.

For the company-level survey, face-to-face interviews were conducted with representatives of exporting/importing companies, on their experience of any trade-related problems they had encountered. The interview reports were then classified into the appropriate NTM category according to the MAST classification.

The sample size for these surveys varied across the seven countries in the pilot project, which are diverse in terms of geographical location and economic size, but interviews were carried out with between 300 and 500 companies in each country. The sampling was targeted on sectors which were recognized a priori as facing more stringent NTMs, or that are considered significant in export terms, based on their share of the total exports of a given country.

In addition to company-level surveys, MAST agreed that information on NTMs affecting trade could also be collected online through the Internet. A prototype of a web-based portal for collecting NTB data, the Trade Barriers Reporter (<http://ntb.unctad.org>), was developed by UNCTAD. This portal is a pilot for establishing a global online reporting system for companies and other stakeholders involved in international trade, where private sector companies can report on the NTMs they encounter. The online

⁷ The project has been financed by a generous contribution from the Government of Switzerland (Project number INT0T7-BA) and by the United Kingdom Department for International Development (UNCTAD India Project).

⁸ Two United Nations regional commissions, the Economic Commission for Latin America and the Caribbean (ECLAC) and the Economic and Social Commission for Asia and the Pacific (ESCAP), supported the pilot project, as did several other national research institutions including the Philippines Institute of Development Studies (PIDS), the National Institute of Development Administration (NIDA) in Thailand, the University of Chile and the Centro de Estudos de Integração e Desenvolvimento (CINDES) in Brazil.

portal is also designed as a dissemination tool. Interested users can access data stored in the database through the portal and compare their experiences with other reports.

The portal was presented in all the pilot countries so as to encourage exporters and importers to report cases of NTMs which have created problems or difficulties in exporting into (or importing from) a foreign country. Once verified, information collected from the company-level surveys, was entered into the private sector database through the portal.

The success of the Trade Barrier Reporter portal has so far been mixed. Although only a limited number of complaints were entered through the data portal, a substantial number of individuals from more than 70 countries have visited the portal to seek information. The portal is expected to receive more entries once it is loaded with all the information from the surveys. In any case, the rather limited number of data entries on the web portal so far points to the need for better promotion and awareness efforts, including through training workshops in the countries where surveys have been undertaken.

4. NTMs facing exporters - Findings from selected surveys

The main objectives of the surveys were to identify the types of NTMs that are affecting firms in their respective countries and, to the extent possible, to better understand the burden created by such measures on the export (or import) activities of those firms.

This section reports the main findings from the surveys conducted in Chile, India, and the Philippines, which provided some of the most thorough country reports. The broad framework of the surveys conducted in the three countries is explained in Table IV-3 below.

Table IV-3. The survey fact sheet

	Chile	India	The Philippines
1. Sectors selected for the survey	Sectors that are likely to encounter NTMs (food, household goods, forestry and paper, wine, automobile, etc.)	Sectors that account for significant exports	Sectors that are likely to encounter NTMs (agrifood products, light manufacturing, e.g. toys)
2. Type/structure of surveyed firms	Mostly domestically owned SMEs	Mostly domestically owned SMEs	Mostly domestically owned SMEs
3. Total number of responses	300 firms (of which 50 are importers)	500 firms	303 firms
4. Total cases of NTMs reported	807	787	812
5. Survey conducted by	MORI (Chile) S.A.	Economic Laws Practice in association with Nielsen India	ACE Philippines, Inc.

Given limited time and resources, the sample firms were drawn from sectors that were preselected according to the criteria set by the surveying team in each country. In the case of Chile and the Philippines, sectors which were considered most likely to encounter NTMs were targeted. In the case of India, sectors that accounted for a “significant” level of exports, i.e. the top 400 exported products (classified at the HS 6-digit level, accounting for 84 per cent of India’s total exports) were selected.

In addition, within the selected sectors, priority was given to interviewing domestically owned small and medium-sized enterprises (SMEs), based on a presumption that these firms would be more susceptible than larger companies to problems caused by NTMs. In total, 300 companies were interviewed in each of Chile and the Philippines and 500 companies in India.

Given the small sample size, the surveys do not represent a total picture of the conditions encountered by exporters in the surveyed countries; neither are the results of the surveys comparable across countries. However, a number of issues/problems that were common to all three countries were identified in these surveys. One was the prevalence of SPS and TBT-related NTMs. Another was “procedural obstacles”, i.e. the procedures used to enforce compliance with a particular requirement (NTM), rather than the content of the requirement itself, but which also act as an obstacle to trade.

(4.1) SPS and TBT measures were found the most problematic

In all three surveys, the largest number of reported NTMs related to SPS or TBT measures: they accounted for more than 70 per cent of reported cases of NTMs in Chile, 76 per cent in the Philippines, and 63 per cent in India. “Other technical measures” were the next most frequently reported obstacles in all three countries.

The prevalence of SPS and TBT measures may be due to a sample bias, as the agrifood and manufacturing (including textiles and clothing) sectors dominated the sample, especially in Chile and the Philippines. It may also suggest that exporters are more aware of these measures as they are product-specific and are closely associated with production and exporting processes. As regards SPS measures, they are used by almost all trading partners of the surveyed countries. This implies that health and sanitary issues are matters of great concern across a wide swath of trading countries. As regards TBT measures, trading partner countries with a higher degree of industrial development (e.g. Australia the EU, Japan and the United States) tend to impose them more extensively.

The types of SPS and TBT measures that were reported as particularly problematic were those related to labelling and packaging requirements, and requirements on conformity assessment (e.g. certification, testing and inspection requirements). Other types included relatively new measures, such as cases pertaining to traceability and cases related to requirements on environmental protection.

The main products affected by SPS measures were unprocessed agricultural and fishery products, as well as the pharmaceutical sector in the case of India. The most significantly affected sectors for TBT measures included electrical/electronic goods, metal products and other miscellaneous manufacturing (e.g. toys and decorative items). A number of significant export sectors were subject to both SPS and TBT measures; these included textile and clothing (Philippines and India), leather (India) and timber products (Philippines, Chile).

The conventional view holds that the main problem concerning SPS or TBT requirements arises when they are technically too stringent or too costly to meet. However, the surveys found that the majority of firms did not regard technical requirements under SPS/TBT measures as too demanding, nor did they impose high costs of adoption. This finding may be biased by the sample, as almost all the surveyed firms were already involved in exporting – unless they had been able to meet the requirements, they would not have been in the business anyway.

More importantly, many firms indicated that correctly meeting SPS/TBT requirements had had a positive impact on their business. In the case of Chile, more than a quarter of the surveyed firms had experienced gains from adapting to foreign technical rules, such as higher sales in the importing market and in other external markets. In the case of the Philippines, two thirds of the surveyed firms reported positive effects from meeting the requirements, including reputational gains (i.e. exports from the Philippines acquire a better reputation for reliability and thus obtain repeat orders), reduced barriers to entry, and easier shipment and customs release in the importing markets, in addition to improved knowledge of norms and standards on the production lines.

A point to note also was that in a number of cases firms reported that technical requirements imposed by developing countries or economies in transition were often more stringent, and at times unreasonably stringent, compared to those imposed by trading partners in more developed markets. For instance, the survey in India suggested that the norms and standards set out by countries with less-developed markets (e.g. Bangladesh, Russia, South Africa etc.) were deemed so stringent that around 70 per cent of exporters to these markets who were interviewed for the surveys, felt that it was not feasible to meet these requirements either technically or financially. Similar cases were reported in Chile concerning their exports to regional trading partners, such as Argentina. It is impossible to draw general conclusions from the findings of these surveys, but it could be that the exports of these three developing countries tend to suffer most from NTMs in sectors and in importing countries where their products are viewed as competitive with domestic products.

Reports from the surveys suggest that SPS- or TBT-related requirements can become a financial obstacle when national standards or requirements imposed by an importing country are different from the corresponding international standards, or from those applied in the exporting country. In the Philippines, the survey found that in 40 per cent of the cases of reported SPS/TBT measures, the national norms applied by importing countries were different from the norms applied to the same product in the Philippines. In the case of Chile, one quarter of firms that faced SPS/TBT requirements found that the norms applied in the importing country differed from the international standard. Adapting to different sets of requirements for the same product can significantly increase production costs. Such a burden on exporters could be reduced if all countries adopted the internationally agreed standards in a harmonized way, or if importing and exporting countries mutually agreed equivalence for the technical standards or norms that they each apply (mutual recognition agreements). However, such agreements are still very rare between the countries that were surveyed and their major trading partners.

SPS/TBT requirements can also become an extra burden to exporters when these requirements change frequently. Both in Chile and the Philippines, about one fifth of the firms that were surveyed reported that they had experienced changes in technical requirements in the importing countries, in most cases making the regulations more stringent or complex than before. Notwithstanding the additional costs, however, the majority of firms had managed to adopt the changes insofar as they had learned about them well in advance. Hence the essential question was whether exporters had access to a reliable source of information as regards when and how such changes would be made.

In the case of Chile, more than one third of the firms surveyed learned about the changes in regulations from international sources, such as their customers themselves, or relevant Internet web pages. In the case of India, about half of the exporters obtained information on changes in regulations from domestic sources, and the remaining from international sources. In the Philippines, two thirds of firms obtained information on changed SPS/TBT regulations from international sources, such as their customers in the relevant markets or foreign customs offices. In all three countries, the majority of firms were satisfied with their sources of information, but this may be because they were not aware that any better information sources were available.

(4.2) “Procedural” measures can make a NTM a barrier to export

The interviews revealed when and how a seemingly “neutral” NTM could become an obstacle to trade. Rather than the NTMs per se, many exporters found the procedural measures required to comply with an NTM created an obstacle to trade. Such “procedural obstacles” can include, among others: arbitrary or inconsistent behaviour of public officials (in the destination market countries as well as in the exporters’ own countries); inefficiency or obstruction caused by excessive documentation, or complex (or at times redundant) clearance mechanisms required by an NTM; or unusually high fees for

services rendered to exports (see Table IV-4 below). These obstacles mainly concern trade facilitation during the pre-shipment period, i.e. in the exporters' own countries.

Table IV-4. Types of procedural obstacles

<p>A: Arbitrary or inconsistent:</p> <ul style="list-style-type: none"> • Behaviour of public officials • Product classification and/or valuation • Application of procedures, regulations, or requirements (including inconsistencies between local and national procedures or regulations)
<p>B: Discriminatory behaviour:</p> <ul style="list-style-type: none"> • Favouring local suppliers or producers in destination markets • Favouring suppliers from other countries or large (or small) companies
<p>C: Inefficiency or obstruction caused by:</p> <ul style="list-style-type: none"> • Excessive documentation requirements • Strict/detailed/redundant testing, certification or labelling • Administrative delays (e.g., in authorization, approval) • Complex clearance mechanisms (e.g., several entities have to approve) • Short submission deadlines for required information or forms • Outdated procedures, (e.g., lack of automation) • Lack of resources, (e.g., understaffing, scarce equipment in destination markets)
<p>D: Non-transparency created by:</p> <ul style="list-style-type: none"> • Inadequate information on laws/regulations/registration • Sudden unannounced changes in procedures, regulations or requirements • Lack of inquiry points • Non-transparent government bid or reimbursement processes • Non-transparent dispute resolution • Informal payment expected or required
<p>E: Legal issues concerning:</p> <ul style="list-style-type: none"> • Lack of enforcement, e.g., patents, copyright, trade marks, confidentiality • Inadequate due process/appeals process/dispute resolution • Inadequate legal infrastructure
<p>F: Unusually high fees or charges</p> <ul style="list-style-type: none"> • E.g. for stamps, testing or other services rendered

The three surveys suggested that procedural obstacles are very often associated with SPS or TBT measures as they involve certification, inspection, labelling and clearance procedures. In the Philippines, over 70 per cent of procedural obstacles reported were linked to either SPS or TBT measures and a similar situation was observed in India, where 63 per cent of procedural obstacles were linked to SPS or TBT measures (see Table IV-5 below).

Table IV-5. Number of cases per procedural obstacles found in the Philippines and India

	A	B	C	D	E	F		
	Arbitrariness or inconsistency	Discriminatory behaviour	Inefficiency or obstruction	Non- transparency	Legal issues	High fees	Total	% of total
Philippines								
(A) Sanitary/phytosanitary	47	7	146	13		41	254	30
(B) Technical barriers to trade	122	10	177	17	4	63	393	47
(C) Other technical measures	9	0	11	3	2	1	26	3
(D) Price control measures	7	4	0	0	0	0	11	1
(E) Quantity control measures	0	0	1	2	0	0	3	0
(F) Para-tariff measures	9	1	1	1	0	11	23	3
(G) Finance measures	1	0	0	0	4	0	5	1
(H) Anti-competitive measures	0	1	0	0	0	0	1	0
(I) Export-related measures	24	0	45	20	0	11	100	12
(J) TRIMs	0	1	0	0	0	0	1	0
(K) Distribution restrictions	1	0	0	0	0	0	1	0
(O) Intellectual property	1	0	2		5	2	10	1
Grand total	226	24	383	57	15	134	839	100
India								
(A) Sanitary/phytosanitary	78	21	89	32	0	0	220	28
(B) Technical barriers to trade	117	20	124	9	1	0	271	35
(C) Other technical measures	43	0	14	3	0	0	60	8
(D) Price control measures	5	16	0	16	0	4	41	5
(E) Quantity control measures	7	25	4	0	2	0	38	5
(F) Para-tariff measures	5	1	10	3	7	5	31	4
(G) Finance measures	38	12	7	7	2	0	66	8
(H) Anti-competitive measures	1	4	0	0	0	0	5	1
(I) Export-related measures	16	7	9	2	4	4	42	5
(J) TRIMs	2	3	0	0	0	0	5	1
(P) Subsidies	1	1	0	0	0	0	2	0
Grand total	313	110	257	72	16	13	781	100

Source: UNCTAD/ITC pilot project surveys.

Taking the survey conducted in the Philippines as an example, the most frequently observed procedural obstacles were those related to “inefficiency or obstruction” which are caused by, for example, excessive amounts of required documentation or strict and complex requirements concerning packaging, labelling, testing and obtaining certification. More than half of the reported cases of this type concerned very strict, detailed, or at times redundant procedures for testing, certification and/or labelling requirements. With respect to excessive documentation requirements, some firms reported that they had to obtain certification from many different agencies in the Philippines, and assemble a great many papers (sometimes seven copies of each document) that they were required to submit before being able to export their products.

A significant number of cases of “arbitrariness or inconsistency” were also reported, particularly concerning the application of procedures, regulations or requirements. Interestingly, a large number of cases were associated with their own domestic agencies. Problems within the Philippines included slow release of shipments from customs, ad hoc requests for informal payments and unannounced changes in fees. Arbitrary or inconsistent behaviour found in the destination markets related to certification requirements, such as fumigation certificates, clearance requirements concerning endangered species, and regulations for obtaining export permits.

Some reported cases of “unusually high fees or charges” as a result of the accumulation of costs of certification, documentation, testing, standards, and labelling. Some firms found that the expense associated with obtaining HACCP (Hazard Analysis and Critical Control Points) certification was particularly severe. Costs associated with international accreditation or buyer inspection were also recorded. Some even required that representatives from foreign government agencies be flown in to oversee particular processes and to certify that products conformed to the SPS requirements of the destination country.

The following were some of the actual cases of procedural obstacles encountered by the firms that were surveyed in the Philippines:

- Certain countries require fumigation of a particular product, which is not required by other importing countries for the same product;
- Certain importers (or importing countries) require so-called social protection clauses, such as documentary proof that the company pays the minimum wage to its workers;
- Food products containing soy sauce were prohibited for import because of suspected carcinogen content, but with no factual evidence presented to support this claim;
- Officials in the destination market were unfamiliar with the products being exported, particularly if they were ethnic Philippine food products;
- Export consignments were classified at extremely high values, sometimes at three times the actual price;
- A requirement to have all papers processed through the embassy of the importing country causing further delay;
- United States security requirements often require certification related to anti-terrorism, which may require detailed information on how the shipment was loaded.

It is quite possible that many of these procedural obstacles are the result of a lack of access to information on procedure, whether such information pertains to requirements in export destinations or to the domestic market. SMEs, which often have very limited access to market intelligence or information, are most likely to suffer from the cost entailed in complying with arbitrary and inconsistent behaviour/procedures encountered during the exporting process.

(4.3) Issues concerning information collected from the private sector

A major benefit arising from the data collection from the private sector was that it allowed testing and validation of the updated classification of NTMs. This led to further modification of the new NTM classification, such as the creation of a new separate classification to include procedural obstacles.

When the data collection under the pilot project was completed, the question arose as to whether the information collected from exporting/importing firms was suitable for use in quantitative analysis of the impact of NTMs. With respect to data quality, the data from the private sector is based on subjective perceptions. These perceptions depend on technical knowledge of and familiarity with NTMs (by both interviewers and interviewees) which can vary across countries and also across interviewers/interviewees. If some firms did not report an NTM that is known to exist in the importing market concerned, it could be that they knew of ways to get round it, rather than that they did not know that such

a barrier existed. Alternatively, some firms, even when facing a type of NTB, may just accept it as an unavoidable aspect of doing business. In addition, some firms might not be willing to report incidences of NTMs, considering this information an advantage over their local competitors.

In addition, the information collected under the pilot project might not be representative of the underlying structure of NTMs facing the overall exports of the country, as the company-level surveys were undertaken only with selected firms in selected export sectors (e.g. multinational firms were excluded). For these reasons, MAST decided that the survey data would not be suitable for quantitative analysis on NTMs, and that it should be separated from the comprehensive data on NTMs that is collected from official data sources.

Nevertheless, survey-based information on NTMs has a unique value, not only to other private sector companies, which could learn from the experiences of others, but also to trade policymakers.

The surveys, for instance, could help identify when and how an NTM becomes an obstacle to everyday exporting business practices in developing countries. Procedural obstacles were often seen by firms as problems for their export businesses, many of which were in practice weaknesses in trade facilitation measures within the exporting countries (e.g. lack of adequate certification or testing facilities). These findings in turn help to point out the exact areas in trade facilitation that require policy actions by exporters' own governments. An immediate improvement could be made, in the case of the Philippines for instance, by making more sophisticated and efficient equipment/facilities for testing and certification available to exporters at a reasonable cost.

The results of the surveys also suggest that it would be beneficial to create efficient public-private partnerships that connect the private sector with the government and aim at efficient information dissemination, e.g. via a simple web-based information system, and facilitating consultations between exporters and the government, or its relevant agencies, with regard to NTMs. Certain cases reported in the surveys indicated a number of NTM cases that were probably quite inconsistent with the WTO rules. However, in many cases, the exporting firms seemed concerned simply to meet any requirements which would keep their businesses alive, rather than questioning whether the NTMs they faced were consistent with the multilateral trading rules. Frequent consultations or regular dialogue between exporters and their governments would allow exporters to address the existence of such barriers. Such consultation mechanisms exist in major developed economies, e.g. the EU Trade Barriers Regulation (TBR), but are still relatively uncommon among developing countries.

5. Activities envisaged for the future

As described above, MAST has embarked on measures for systematically collecting information and data on NTMs from (i) official sources and (ii) the private sector firms under the UNCTAD/ITC Pilot Project.

Part of the information collected so far is available in TRAINS for public use. The information added to TRAINS includes the product-level information on Japanese NTMs for 2009 and the information on NTMs applied by the majority of the countries in the pilot project.

In addition, under the arrangement between UNCTAD and the European Commission, the information included in the EU Export Helpdesk will be included in the TRAINS database in the near future. As the work progresses, it is envisaged that information on NTMs applied by Canada, China, Russia, Taiwan Province of China and the United States will be included in the TRAINS database in the course of 2010-2011.

As for data collection in the future, MAST plans to cooperate in a form of technical assistance with a number of regional groupings of developing countries, including ASEAN, ALADI, the South Asian Association for Regional Cooperation (SAARC), and the East African Community (EAC). The objective of this cooperation is to enable these regional groupings to start collecting and systematically updating official information on NTMs that exist in their member countries. Cooperation with three regional groupings (the list is to be decided shortly) is expected to start in 2010, with a duration of three years for each project. Depending on the availability of project funding, cooperation with another three regional groupings is expected to follow in 2012.

5.1 The database

As mentioned above, the ultimate goal is to establish a comprehensive database of NTMs. Once the official data is collected, it will be standardized, validated and made available at the product level (at the national tariff line level if possible). This would facilitate quantitative analysis, as the information on NTMs can be paired with variables such as trade flows or applied tariff rates.

MAST will continue its discussions on the structure and contents of the database. In recent MAST discussions, it was suggested that, in future, the database should make it possible to distinguish between discriminatory and non-discriminatory measures. At this stage, it is envisaged that the database will provide at least the following information on an NTM at product level:

- The type of measure - whether a specific product is affected by NTMs, and if so, of which type;
- The source of a measure - the name of the publication, the decree number, etc;
- Date of entry into force – also, if relevant, date of termination;
- The countries affected by a measure – list of countries affected by a measure and if it is imposed only on products originating from specific countries;
- Whether a measure is temporary or permanent – indication of whether a measure is imposed only on a temporary or seasonal basis;
- The legal status of a measure – information concerning whether measures are de jure obligatory (chapters A/B 200 - “regulations”) or are not obligatory, but de facto may impose obligations on exporters/importers (this is to be collected only through questionnaire surveys).
- Purpose of a measure - the practical reasons behind the existence of a measure;
- The origin of a measure - whether the origin of a measure (e.g. standards) is national or international, or even private.

5.2 Issues for the future

Collecting data on NTMs is a complex and costly endeavour. But MAST believes that the availability of NTM data is vital to better understanding of their impact on trade flows, income distribution and social welfare, and thus to making trade more effective for economic growth and social development. In order to facilitate collection and updating of the NTM data, MAST aims to collaborate further with national/regional/international agencies.

As regards future activities, there remain some open questions on the framework and scope of data collection. One question is over the country coverage of the database. Ideally, the data should be collected comprehensively from as many countries as possible. However, given budget constraints, and the fact that it costs more or less the same to collect data for countries, regardless of the extent of their international trade, MAST may have to focus only on countries that represent major international markets.

Another open question is related to the use of private sector data, i.e. whether MAST should allocate additional resources to conduct further surveys or not. Private sector data is certainly useful in itself, especially for firms in the countries surveyed. However, the experience of the pilot project suggests that there is a great need to improve the quality of the NTM data collected from surveys. The data collected in this way is of very limited use at this stage for the purpose of statistical analysis and research.

MAST will discuss and clarify these issues in subsequent meetings.

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ANNEX 3. CLASSIFICATION OF NON-TARIFF MEASURES

New coding system of trade control measures (TCMCS)

A000 SANITARY AND PHYTOSANITARY MEASURES

Laws, decrees, regulations, requirements, standards and procedures to protect human, animal or plant life or health from certain risks such as the establishment or spread of pests, diseases, disease-carrying organisms or disease-causing organisms; risks from additives, contaminants, toxins, disease-causing organisms in foods, beverages or feedstuffs.

A100 Prohibitions or restriction of products or substances for SPS reasons

A110 Temporary geographic prohibition for SPS reasons

Prohibition on imports of specified products from countries or regions due to infectious/contagious diseases: measures included in this category are typically more of an ad hoc and time-bound nature.

Example: Imports of poultry from areas affected by avian flu or cattle from countries affected by foot and mouth disease are prohibited.

A120 Geographical restrictions on eligibility

Prohibition of imports of specified products from specific countries or regions due to non-evidence of sufficient safety conditions to avoid sanitary and phytosanitary hazards. The restriction may be imposed automatically until the country proves employment of satisfactory sanitary and phytosanitary measures to provide a level of protection against food hazards that is considered acceptable.

Example: Imports of plants originating in tropical regions where certain plagues may exist, are restricted; imports of apples from countries that do not have proven satisfactory sanitary conditions are prohibited.

A130 Systems approach

An approach that combines two or more independent SPS measures on the same product: the combined measures can be composed of any number of interdependent measures, as well as their conformity assessment requirements such as inspection and testing. Any of the measures may be applied pre- or post-harvest.

Example: An import programme establishes a package of measures that specifies specific pest-free production locations, pesticides to be used, harvesting techniques and post-harvest fumigation, combined with inspection requirements at entry point: Hazardous Analysis and Critical Control Point (HACCP).

A140 Special authorization for SPS reasons

A requirement that an importer should receive authorization, permit or approval from a relevant government agency of the destination country for SPS reasons. In order to obtain the authorization, importers may need to comply with other related regulations and conformity assessments.

Example: An import authorization from the Ministry of Health is required.

A150 Registration requirements for importers

A requirement that importers should be registered before they can import certain products: to register, importers may need to comply with certain requirements, provide documentation and pay registration fees.

Example: Importers of certain food items need to be registered at the Ministry of Health.

- A190 Prohibitions or restrictions of products or substances because of SPS reasons not elsewhere specified (n.e.s.)**
- A200 Tolerance limits for residues and restricted use of substances**
- A210 Tolerance limits for residues of or contamination by certain substances**
- A measure that establishes a maximum residue limit (MRL) or “tolerance limit” of substances in foods and feed, which are used during their production process but are not their intended ingredients. It includes a permissible maximum level (ML) for contaminants.
- Example: MRL is established for insecticides, pesticides, heavy metals, veterinary drug residues, persistent organic pollutants (POPs) and chemicals generated during processing; residues of “dithianon” in apples and hops; microbial contaminants.*
- A220 Restricted use of certain substances in foods and feed**
- Restriction or prohibition on the use of certain substances in foods and feed, which are part of their ingredients.
- Example: Certain restrictions exist for food and feed additives used for colouring, preservation or sweeteners.*
- A300 Labelling, marking and packaging requirements**
- A310 Labelling requirements**
- Measures defining the information directly related to food safety, which should be provided to the consumer. Labelling is any written, electronic, or graphic communication on the consumer packaging or on a separate but associated label.
- Example: Labels must specify storage conditions such as “5 degree C maximum”, or “room temperature for dry foods”.*
- A320 Marking requirements**
- Measures defining the information directly related to food safety, which should be carried by the packaging of goods for transportation and/or distribution.
- Example: Transport containers must be marked on the outside with instructions such as handling for perishable goods, refrigeration needs, or protection from direct sunlight, etc.*
- A330 Packaging requirements**
- Measures regulating the mode in which goods must be or cannot be packed, or defining the packaging materials to be used, which are directly related to food safety.
- Example: Use of PVC films for food packaging is restricted.*
- A400 Hygienic requirements**
- Requirements related to food quality, composition and safety, which are usually based on hygienic and good manufacturing practices (GMPs), recognized methods of analysis and sampling: requirements may be applied to the final product (A410) or to the production processes (A420).
- A410 Microbiological criteria on the final product**
- Statement of the micro-organisms of concern and/or their toxins/metabolites and the reason for that concern, the analytical methods for their detection and/or quantification in the final product: microbiological limits should take into consideration the risk associated with the micro-organisms, and the conditions under which the food is expected to be handled and consumed. Microbiological limits should also take account of the likelihood of uneven distribution of micro-organisms in the food and the inherent variability of the analytical procedure.

Examples: Liquid eggs should be pasteurized or otherwise treated to destroy all viable salmonella micro-organisms.

A420 Hygienic practices during production

Requirements principally intended to give guidance on the establishment and application of microbiological criteria for foods at any point in the food chain from primary production to final consumption. The safety of foods is principally assured by control at the source, product design and process control, and the application of good hygienic practices during production, processing (including labelling), handling, distribution, storage, sale, preparation and use.

Examples: Cow-milking equipment on farms should be cleaned weekly with a specified detergent.

A490 Hygienic requirements n.e.s.

A500 Treatment for elimination of plant and animal pests and disease-causing organisms in the final product (e.g. post-harvest treatment)

Various treatments that can be applied during production or as a post-production process, in order to eliminate plant and animal pests or disease-causing organisms in the final product.

A510 Cold/heat treatment

Requirement of cooling/heating of products below/above certain temperatures for a certain period of time to kill targeted pests, either prior to, or upon arrival at the destination country: specific facilities on land or ships are requested. Containers should be equipped properly to conduct cold/heat treatment and should be equipped with temperature sensors.

Example: Citrus fruits must undergo cold (disinfection) treatment to eliminate fruit flies. Kiwifruit must go through steam heat treatment with acetic acid to control botrytis cinerea.

A520 Irradiation

Requirement to kill or devitalize micro-organisms, bacteria, viruses, or insects that might be present in food and feed products by using irradiated energy (ionizing radiation).

Example: This technology may be applied to meat products, fresh fruits, spices and dried vegetable seasonings.

A530 Fumigation

A process of exposing insects, fungal spores or other organisms to the fumes of a chemical at a lethal strength in an enclosed space for a given period of time. The fumigant is a chemical, which at a required temperature and pressure can exist in a gaseous state in sufficient concentration to be lethal to a given pest organism.

Example: Use of acetic acid is mandatory as a post-harvest fumigant to destroy fungal spores on peaches, nectarines, apricots, and cherries; methyl bromide for fumigating cut flowers and many other commodities.

A590 Treatment for elimination of plant and animal pests and disease-causing organisms in the final product n.e.s.

A600 Other requirements on production or post-production processes

Requirement on other (post-) production processes not classified above: it also excludes those specific measures falling under A200: *Tolerance limits for residues and restricted use of substances* (or its subcategories).

A610 Plant growth processes

Requirements on how a plant should be grown in terms of conditions related to temperature, light, spacing between plants, water, oxygen, mineral nutrients, etc.

Example: Seeding rate and row spacing of soybean plants are specified to reduce the risk of frogeye leaf spots.

A620 Animal raising or catching processes

Requirements on how an animal should be raised or caught because of SPS concerns.

Example: Chickens should not be fed with feed containing the offal of cows suspected of carrying BSE.

A630 Food and feed processing

Requirements on how food or feed production should take place in order to satisfy the sanitary conditions of the final products.

Example: New equipment or machinery for handling or processing feed in or around an establishment producing animal feed shall not contain polychlorinated biphenyls (PCBs).

A640 Storage and transport conditions

Requirements on certain conditions under which foods and feed, plants and animals should be stored and/or transported.

Example: Certain foodstuffs should be stored in a dry place, or below a certain temperature; conditions on not transporting foods in the same wagons with certain other products; rules on how to locate animals while transporting them.

A690 Other requirements on production or post-production processes n.e.s**A700 Regulation of foods or feed derived from, or produced using genetically modified organisms (GMO)**

Restriction on imports of foods and feed produced using genetically modified organisms: these regulations may include labelling requirements, authorization or outright prohibition.

Example: GMO products need to be labelled because of health concerns.

A800 Conformity assessment related to SPS

Requirement for verification that a given SPS condition has been met: it could be achieved by one or combined forms of inspection and approval procedures, including procedures for sampling, testing and inspection, evaluation, verification and assurance of conformity, accreditation and approval etc.

A810 Product registration requirement

Product registration requirement in the importing country.

Example: Only registered pesticides may be imported.

A820 Testing requirement

A requirement for products to be tested against a given regulation, such as MRL: includes sampling requirements.

Example: A test is required for the maximum residue level of pesticides on a sample of orange imports.

A830 Certification requirement

Certification of conformity with a given regulation: required by the importing country but may be issued in the exporting or the importing country.

Example: Certificate of conformity for materials in contact with foods (containers, papers, plastics, etc.) is required.

A840 Inspection requirement

Requirement for product inspection in the importing country: may be performed by public or private entities. It is similar to testing, but does not include laboratory testing.

Example: Animals or plant parts must be inspected before entry is allowed.

A850 Traceability information requirements

Disclosure requirement of information that allows a product to be followed through the stages of production, processing and distribution.

A851 Origin of materials and parts

Disclosure of information on the origin of materials and parts used in the final product.

Example: For vegetables, disclosure of information on the location of the farm, name of the farmer, fertilizers used, may be required.

A852 Processing history

Disclosure of information on all stages of production: may include their location, processing methods and/or equipment and materials used.

Example: For meat products, disclosure of information on the origin of the animals, the slaughterhouse, and the food processing factory may be required.

A853 Distribution and location of products after delivery

Disclosure of information on when and how goods have been distributed, from the time of delivery to distributors until they reach the final consumer.

Example: For rice, disclosure of information on the location of its temporary storage facility may be required.

A859 Traceability requirements, n.e.s.**A860 Quarantine requirements**

Requirement to detain or isolate animals, plants or their products on arrival at a port or place for a given period in order to prevent the spread of infectious or contagious disease or contamination.

Example: Live dogs must be quarantined for two weeks before entry into the territory is authorized. Plants need to be quarantined to terminate or restrict the spread of harmful organisms and mitigate the adverse impacts thereof.

A890 Conformity assessment related to SPS n.e.s.**A900 SPS measures n.e.s.****B000 TECHNICAL BARRIERS TO TRADE**

Measures referring to technical specification of products or production processes and conformity assessment systems thereof: they exclude SPS measures, but a TBT measure may be applied to food products, if the measure is not for food safety.

B100 Prohibitions or restrictions on products or substances for TBT reasons (e.g. environment, security)**B110 Prohibition for TBT reasons**

Import prohibition for non-economic, non-SPS reasons such as national security reasons, environment protection etc.

Example: Imports are prohibited for hazardous substances including explosives, certain toxic substances covered by the Basel Convention such as aerosol sprays containing CFCs, a range of HCFCs and BFCs, halons, methyl chloroform and carbon tetrachloride.

B140 Authorization requirement for TBT reasons

Requirement that importers should receive authorization, permit or approval from a relevant government agency of the destination country, for non-economic, non-SPS reasons.

Example: Imports must be authorized for drugs, waste and scrap, firearms, etc.

B150 Registration requirement for importers for TBT reasons

Requirement that importers should be registered in order to import certain products: to register, importers need to comply with certain requirements, documentation and registration fees. Also includes the registration of establishments producing certain products.

Example: Importers of "sensitive products" such as medicines, drugs, explosives, firearms, alcohol, cigarettes, gaming machines, etc. may be required to be registered in the importing country.

B190 Prohibitions or restrictions of products or substances because of TBT reasons n.e.s.**B200 Tolerance limits for residues and restricted use of substances****B210 Tolerance limits for residues of or contamination by certain substances**

A measure that establishes a maximum level or "tolerance limit" of substances, which are used during the production process but are not the intended ingredients.

Example: Salt level in cement must be below a specified amount.

B220 Restricted use of certain substances

Restriction on the use of certain substances as components or materials to prevent the risks arising from their use.

Example: For food containers made of polyvinyl chloride plastic, vinyl chloride monomer must not exceed 1 mg per kg; restricted use of solvents in paints; the maximum level of lead allowed in consumer paint.

B300 Labelling, marking and packaging requirements**B310 Labelling requirements**

Measures regulating the kind, colour and size of printing on packages and labels, and defining the information that should be provided to the consumer: Labelling is any written, electronic, or graphic communication on the packaging or on a separate but associated label, or on the product itself. It may include requirements on the official language to be used as well as technical information on the product, such as voltage, components, instruction on use, safety and security advice, etc.

Example: Refrigerators need to carry a label indicating size and weight as well as electricity consumption level.

B320 Marking requirements

Measures defining the information for transport and customs that the transport/ distribution packaging of goods should carry.

Example: Handling or storage conditions according to type of product, typically signs such as “FRAGILE” or “THIS SIDE UP” etc. must be marked on the transport container.

B330 Packaging requirements

Measures regulating the mode in which goods must be or cannot be packed, and defining the packaging materials to be used.

Example: Palletized containers or special packaging need to be used for the protection of sensitive or fragile products.

B400 Production or post-production requirements

B410 TBT regulations on production processes

Requirements on production processes not classified under SPS above. Also excludes those specific measures falling under B200: Tolerance limits for residues and restricted use of substances (or its subcategories).

Example: A minimum labour standard in producing certain products is established. Use of environmentally-friendly equipment is mandatory.

B420 TBT regulations on transport and storage

Requirements on certain conditions under which products should be stored and/or transported.

Example: Medicines should be stored below a certain temperature.

B490 Production or post-production requirements n.e.s.

B500 Regulation on genetically modified organisms (GMO) (for reasons other than food safety) and other foreign species

Restriction on imports of products produced using genetically modified organisms: these regulations may include labelling requirements, authorization or outright prohibition.

Examples: GMO products need to be labelled because of concerns that they may be less nutritious. GMO products are restricted to protect biodiversity.

B600 Product identity requirement

Conditions to be satisfied in order to identify a product with a certain denomination (including biological or organic labels).

Example: Minimum percentage of cocoa content should be assured in chocolate.

B700 Product quality or performance requirement

Conditions to be satisfied in terms of performance (e.g. durability, hardness) or quality (e.g. content of defined ingredients).

Example: Door must resist certain minimum high temperature.

B800 Conformity assessment related to TBT

Requirement for verification that a given TBT requirement has been met: it could be achieved by one or combined forms of inspection and approval procedures, including procedures for sampling, testing and inspection, evaluation, verification and assurance of conformity, accreditation and approval etc.

B810 Product registration requirement

Product registration requirement in the importing country.

Example: Only registered batteries and accumulators may be imported.

B820 Testing requirement

A requirement for products to be tested against a given regulation, such as performance level: includes sampling requirement.

Example: A test on a sample of imports of motor vehicles and related equipment for compliance with safety standards.

B830 Certification requirement

Certification of conformity with a given regulation: required by the importing country but may be issued in the exporting or importing country.

Example: Certificate of conformity for electrical products is required.

B840 Inspection requirement

Requirement for product inspection in the importing country: may be performed by public or private entities. It is similar to testing, but it does not include laboratory testing.

Example: Textile and clothing imports must be inspected for size and materials used before entry is allowed.

B850 Traceability information requirements

Disclosure requirement of information that allows a product to be followed through the stages of production, processing and distribution.

B851 Origin of materials and parts

Disclosure of information on the origin of materials and parts used in the final product.

Example: Manufactures of automobiles must keep records of the origin of the original set of tyres for each individual vehicle.

B852 Processing history

Disclosure of information on all stages of production: may include their location, processing methods and/or equipment and materials used.

Example: For wool apparel products, disclosure of information on the origin of the sheep, location of the textile factory and identity of the final apparel producer may be required.

B853 Distribution and location of products after delivery

Disclosure of information on when and how goods have been distributed, from the time of delivery to distributors until they reach the final consumer.

Example: For some precision products such as personal computers, a complete record of distribution and location of the product after delivery may be required in order to trace the cause of faulty products.

*B859 Traceability requirements n.e.s.***B890 Conformity assessment related to TBT measures n.e.s.****B900 TBT measures n.e.s.**

C000 PRE-SHIPMENT INSPECTION AND OTHER FORMALITIES**C100 Pre-shipment inspection**

Compulsory quality, quantity and price control of goods prior to shipment from the exporting country, conducted by an independent inspecting agency mandated by the authorities of the importing country.

Example: A pre-shipment inspection of textile imports by a third party for verification of colours and types of materials is required.

C200 Direct consignment requirement

Requirement that goods must be shipped directly from the country of origin, without stopping in a third country.

Example: Goods imported under a preferential scheme such as GSP must be shipped directly from the country of origin in order to satisfy the scheme's rules of origin condition. (i.e. to guarantee that the products have not been manipulated, substituted or further processed in any third country of transit).

C300 Requirement to pass through a specified customs port

Obligation for imports to pass through a designated entry point and/or customs office for inspection, testing, quarantine, etc.

Example: DVD players need to be cleared at a designated customs office for inspection.

C400 Import monitoring and surveillance requirements and other automatic licensing measures

Monitoring of import value and volume of specified products: may be applied with the purpose of signalling concern over import surges.

Example: Automatic import licence is required for textile and apparel imports.

C900 Other formalities n.e.s.**D000 PRICE CONTROL MEASURES**

Measures implemented to control the prices of imported articles in order to: support the domestic price of certain products when the import prices of these goods are lower; establish the domestic price of certain products because of price fluctuations in domestic markets, or price instability in a foreign market; and counteract the damage resulting from the occurrence of "unfair" foreign trade practices.

D100 Administrative pricing

Fixing of import prices by the authorities of the importing country by taking into account the domestic prices of the producer or consumer: could take the form of establishing floor and ceiling price limits; or reverting to determined international market values. There may be different price-fixing methods, such as minimum import prices or prices set according to a reference.

D110 Minimum import prices

Pre-established import price below which imports cannot take place.

Example: A minimum import price is established for rice.

D120 Reference prices and other price controls

Pre-established import prices which authorities of the importing country use as reference to verify the price of imports.

Example: Reference prices for agricultural products are based on the farm-gate price, which is the net value of the product when it leaves the farm, after marketing costs have been subtracted.

D190 Administrative pricing n.e.s.

D200 Voluntary export price restraints (VEPRs)

An arrangement in which the exporter agrees to keep the price of his goods above a certain level.⁹ A VEPR process is initiated by the importing country and is thus considered as an import measure.

Example: Export price of video cassette tapes is set at a higher level in order to avoid anti-dumping action by major importing countries.

D300 Variable charges

Taxes or levies aimed at bringing the market prices of imported agricultural and food products in line with the prices of corresponding domestic products¹⁰: primary commodities may be charged per total weight, while charges on processed foodstuffs can be levied in proportion to the primary product contents in the final product. These charges include:

D310 Variable levies

A tax or levy whose rate varies inversely with the price of imports: it is applied mainly to primary products and may be called a flexible import fee.

Example: A tariff rate on beef is set as “\$100 per kg – price per kg of beef on the invoice”.

D320 Variable components

A tax or levy whose rate includes a fixed component and a variable component: these charges are applied mainly to processed products where the variable part is applied on the primary products or ingredients included in the final product. It may be called compensatory element.

Example: A tariff rate on sugar confectionery is set as “25% plus 25\$ per kg of contained sugar – price per kg of sugar”.

D390 Variable charges n.e.s

D400 Anti-dumping measures

A countermeasure taken against a dumping action of an exporter: it is considered that dumping takes place when a product is introduced into the commerce of an importing country at less than its normal value, i.e. if the export price of the product exported is less than the comparable price, in the ordinary course of trade, for the same product when destined for consumption in the exporting country.

D410 Anti-dumping investigations

An investigation initiated either following a complaint by local producers of similar goods or self-initiated by importing country authorities when they have cause to believe that dumping may be materially injurious to national competing producers or third party exporters. Provisional duties may be applied during the investigation.

Example: An anti-dumping investigation was initiated by the European Union against exports of steel wire rod.

⁹ These measures were formally prohibited by the WTO Agreements, but in reality they can be applied in case, for example of situations where these products are in danger facing anti-dumping, safeguard or countervailing measures.

¹⁰ All these measures were formally prohibited by the WTO Agreement on Agriculture, Article 4.

D420 Anti-dumping duties

Duties levied on certain goods originating from specific trading partner(s) to offset the dumping margin. Duty rates are generally enterprise-specific.

Example: An anti-dumping duty of between 8.5 and 36.2 per cent has been imposed on imports of biodiesel products.

D430 Price undertakings

Undertakings to increase the export price offered by exporters to avoid the imposition of anti-dumping duties: under WTO rules, prices can be negotiated for this purpose, but only after dumping has been proved.

Example: An anti-dumping case involving grain oriented flat-rolled products of silicon-electrical steel ended in the manufacturer agreeing to raise the price.

D500 Countervailing measures

Measures intended to offset any direct or indirect subsidy granted by authorities in the exporting country: these may take the form of countervailing duties or undertakings by the exporting firms or by authorities of the subsidizing country.

D510 Countervailing investigations

An investigation initiated either following a complaint by local producers of similar goods or self-initiated by the importing country authority to determine whether the imported goods are subsidized and cause material injury.

Example: A countervailing investigation was initiated by Canada into import of oil country tubular goods.

D520 Countervailing duties

Duties levied on certain goods to offset the amount of subsidization granted by the exporter on the production or trade of these goods, when the subsidy is assumed to hurt domestic industry.

Example: A countervailing duty of 44.71 per cent has been imposed on imports of dynamic random access memory (DRAM) semiconductors.

D530 Price undertakings

Undertakings to increase the export price offered by exporters to avoid the imposition of countervailing duties: under WTO rules, prices can be negotiated for this purpose, but only after the injurious effect of the subsidy has been proved.

Example: A countervailing case involving palm oil and margarine for puff pastry ended in an undertaking to fully eliminate the subsidy.

D600 Safeguard duties

Emergency and/or temporary duties imposed as a safeguard action: a country may take a "safeguard" action (i.e., restrict imports of a product temporarily) to protect a specific domestic industry from an increase in imports of any product which is causing, or which is threatening to cause, serious injury to the domestic industry that produces similar or directly competitive products.

Example: A safeguard duty of between 15 and 23 per cent has been imposed on imports of gamma ferric oxide.

D700 Seasonal duties

Duties applicable at certain times of the year, usually in connection with agricultural products.

Example: Imports of fresh perry pears, in bulk, from 1 August to 31 December may enter free of duty, while in other months, positive duties (seasonal duty) are applied.

D900 Price control measures n.e.s.

E000 LICENCES, QUOTAS, PROHIBITIONS AND OTHER QUANTITY CONTROL MEASURES

Quantity control measures are aimed at limiting the quantity of goods that can be imported, regardless of whether they come from different sources or one specific supplier. These measures can take the form of restrictive licensing, fixing of a predetermined quota, or prohibition.¹¹

E100 Non-automatic licence

An import licence which is not granted automatically: the licence may either be issued on a discretionary basis or may require specific criteria to be met before it is granted.

E110 Licence with no specific ex-ante criteria

Licence issued at the discretion of the issuing authority: it may also be referred to as a discretionary licence.

Example: Imports of automobiles are subject to discretionary licence.

E120 Licence for specified use

Licence granted only for imports of products to be used for pre-specified purposes: normally granted for use in operations generating an anticipated benefit in important sectors of the economy.

Example: Licence to import steel is granted only if it is used for the construction of a bridge.

E130 Licence linked with local production

Licence granted only for imports of products with linkage to local production.

Example: Licence to import coal is granted only if it is used for the production of electricity.

E140 Licence combined with or replaced by special import authorization

A special import authorization required, in addition to or instead of, a licence issued by the main licensing body (usually the Ministry of Trade): this authorization or a requirement for an inscription in a register is required by a specialized authority which is coordinating the sector of the domestic economy related to the products concerned.

Example: A special import authorization from the Ministry of Agriculture is required to import rice.

E180 Licence for non-economic reasons*E181 Licence for religious, moral or cultural reasons*

Control of imports by licence for religious, moral or cultural reasons.

Example: Imports of alcoholic beverages are permitted only by hotels and restaurants.

E182 Licence for political reasons

Control of imports by licence for political reasons.

Example: Imports of all products from a given country are subject to import licences.

*E189 Licence for non-economic reasons n.e.s.***E190 Non-automatic licensing n.e.s.****E200 Quotas**

Restriction of importation of specified products through the setting of a maximum quantity or value authorized for import.

¹¹ Most quality control measures are formally prohibited by the GATT 1994, but can be applied under specifically determined circumstances (Article XI of GATT 1994).

E210 Global quotas

Quotas established on the basis of the total quantity or value of imports of specific products.

E211 Unallocated quotas

Global quotas which can be filled on a first-come, first-served basis by different suppliers.

Example: Imports of wheat are subject to a maximum limit of 10 million tons per year from any country.

E212 Quotas allocated to exporting countries

Global quotas which are pre-allocated among exporters.

Example: Imports of wheat are subject to a maximum limit of 10 million tons per year allocated to exporting countries according to the average export performance of the past three years.

E220 Bilateral quotas

Quotas reserved for a specific exporting country.

Example: Maximum of 1 million tons of wheat may be imported from Country A.

E230 Seasonal quotas

Quotas established for a given period of the year, usually set for certain agricultural goods when domestic harvest is in abundance.

Example: Quota for import of strawberries is established for imports from March to June each year.

E240 Quotas linked with purchase of local goods

Quotas defined as a percentage of the value of goods purchased locally (i.e. in the importing country) by the exporter.

Example: Imports of refined oil in volume are limited to the volume of crude petroleum purchased locally.

E250 Quotas linked with domestic production

Compulsory linkage of imports (of materials or parts) with local production.

Example: Import of coal is limited to the amount used in the previous year in the production of electricity.

E270 Tariff rate quotas

A system of multiple tariff rates applicable to the same product: the lower rates apply up to a certain value or volume of imports, and the higher rates are charged on imports which exceed this amount.

Example: Rice may be imported free of duty up to the first 100,000 tons, after which it is subject to a tariff rate of \$1.5 per kg.

E280 Quotas for non-economic reasons*E281 Quotas for religious, moral or cultural reasons*

Control of imports by quotas for religious, moral or cultural reasons.

Example: Imports of alcoholic beverages are permitted only by hotels and/or restaurants up to a certain amount.

E282 Quota for political reasons

Control of imports by quotas for political reasons.

Example: Imports of seaweed from Country A (having no diplomatic relations with the importing country) is limited to the equivalent of \$100,000 per year, a value considered to be the minimum amount necessary for subsistence of local producers.

E289 *Quotas for non-economic reasons n.e.s.*

E290 Quotas n.e.s.

E300 Prohibitions

E310 Total prohibition (not for SPS or TBT reasons)

Prohibition without any additional condition or qualification.

Example: Import of motor vehicles with cylinders under 1500cc is not allowed, in order to encourage domestic production.

E320 Suspension of issuance of licences

Formal announcement/declaration that import licences will not be issued: such a situation may arise in cases related to short-term balance of payments difficulties, or for other reasons.

Example: Issuance of licence to import motor vehicles with cylinders under 1500cc is suspended until further notice.

E330 Seasonal prohibition

Prohibition of imports during a given period of the year: this is usually applied to certain agricultural products while the domestic harvest is in abundance.

Example: Import of strawberries is not allowed from March to June each year.

E340 Temporary prohibition

Prohibition set for a given fixed period of time: it is usually for urgent matters not covered under the safeguard measures of E400 below.

Example: Import of certain fish is prohibited with immediate effect until the end of the current season.

E350 Prohibition of importation in bulk

Prohibition of importation in a large-volume container: importation is only authorized if the product is packed in a small retail container, which increases the per unit cost

Example: Import of wine is allowed only in a bottle of 750ml or less.

E360 Prohibition of products infringing patents or intellectual property rights

Prohibition of copies or imitations of patented or trademarked products.

Example: Import of imitation brand handbags is prohibited.

E380 Prohibition for non-economic reasons

E381 *Prohibition for religious, moral or cultural reasons*

Prohibition of imports for religious, moral or cultural reasons.

Example: Imports of books and magazines displaying pornographic pictures are prohibited.

E382 *Prohibition for political reasons (embargo)*

Prohibition of imports from a country or group of countries, applied for political reasons.

Example: Imports of all goods from country A are prohibited in retaliation for its testing of nuclear bombs.

E389 *Prohibition for non-economic reasons n.e.s.*

E390 Prohibitions n.e.s.

E400 Quantitative safeguard measures

Quantitative restrictions (licensing, quotas, prohibition) adopted when the government of the importing country wishes to prevent or remedy serious injuries resulting from a sudden increase of imports, or to facilitate adjustment.¹²

Example: Quantitative safeguard measures (quotas) were implemented against the sudden surge of imports of certain mushrooms and vegetables.

E500 Export restraint arrangement

An arrangement by which an exporter agrees to limit exports in order to avoid imposition of restrictions by the importing country, such as quotas, raised tariffs or any other import controls.¹³ The arrangement may be concluded at either government or industry level.

E510 Voluntary export restraint arrangements (VERs)

Arrangements made by the government or industry of an exporting country to “voluntarily” limit exports in order to avoid imposition of mandatory restrictions by the importing country. Typically, VERs are a result of requests made by the importing country to provide a measure of protection for its domestic businesses producing substitute goods.

E511 *Quota agreement*

A VER agreement that establishes export quotas.

Example: A bilateral quota on export of motor vehicles from country A to country B was established to avoid sanctions by the latter.

E512 *Consultation agreement*

A VER agreement that provides for consultation with a view to introducing restrictions (quotas) under certain circumstances.

Example: An agreement was reached to restrict export of cotton from country C to country D where the volume of exports exceeded \$2 million tons in the previous month.

E513 *Administrative cooperation agreement*

A VER agreement that provides for administrative cooperation with a view to avoiding disruptions in bilateral trade.

Example: An agreement was reached between country E and country F to cooperate to prevent a sudden surge in exports.

E590 Export restraint arrangements n.e.s.

E900 Quantity control measures n.e.s.

¹² Under the WTO Agreement on Safeguards, justification should be provided on the use of such measures instead of price-based measures such as additional customs duties.

¹³ Such arrangements are formally prohibited by the WTO Agreements.

F000 CHARGES, TAXES AND OTHER PARA-TARIFF MEASURES

Measures, other than tariff measures, that increase the cost of imports in a similar manner, i.e. by a fixed percentage or amount: they are also known as para-tariff measures.

F100 Customs surcharges

An ad hoc tax imposed in addition to customs tariffs to raise fiscal revenues or to protect domestic industries:

Example: Customs surcharge, surtax or additional duty

F200 Service charges

Fees charged for inspections, quarantine or other services provided by the customs authorities: they include:

F210 Customs inspection, processing and servicing fees**F220 Merchandise handling or storing fees****F290 Service charges, n.e.s.****F300 Additional taxes and charges**

Additional charges, which are levied on imported goods in addition to customs duties and surcharges and which have no internal equivalents:¹⁴ They include:

F310 Tax on foreign exchange transactions**F320 Stamp tax****F330 Import licence fee****F340 Consular invoice fee****F350 Statistical tax****F360 Tax on transport facilities****F390 Additional charges n.e.s.****F400 Internal taxes and charges levied on imports**

Taxes levied on imports that have domestic equivalents.¹⁵

¹⁴ It should be noted that Article VIII of GATT states that fees and charges other than customs duties and internal taxes “shall be limited in amount to the approximate cost of services rendered and shall not represent an indirect protection to domestic products or a taxation of imports or exports for fiscal purposes.”

¹⁵ Article III of the GATT Agreement allows internal taxes to be applied to imports; however, these taxes should not be higher than those applied to similar domestic products.

F410 General sales taxes

A tax on sales of products which is generally applied to all or most products.

Example: Sales tax, turnover tax (or multiple sales tax), value added tax.

F420 Excise taxes

A tax imposed on selected types of commodities, usually of a luxurious or non-essential nature: this tax is levied separately from, and in addition to, the general sales taxes.

Example: Excise tax, tax on alcohol consumption, cigarette tax.

F430 Taxes and charges for sensitive product categories

Charges that include emission charges, (sensitive) product taxes and administrative charges: these latter charges are meant to recover the costs of administrative control systems.

Example: CO₂ emission charge on motor vehicles.

F490 Internal taxes and charges levied on imports n.e.s.**F500 Decreed customs valuations**

Value of goods determined by a decree for the purpose of imposition of customs duties and other charges: this practice is presented as a means to avoid fraud or to protect domestic industry. The decreed value de facto transforms an ad valorem duty into a specific duty.¹⁶

Example: The so-called "valeur mercitoriale" in Francophone countries.

F900 Para-tariff measures n.e.s**G000 FINANCE MEASURES**

Financial measures are intended to regulate the access to and cost of foreign exchange for imports and define the terms of payment. They may increase import costs in the same manner as tariff measures.

G100 Advance payment requirement

Advance payment requirements related to the value of the import transaction and/or related import taxes: these payments are made at the time an application is lodged, or when an import licence is issued. They can consist of:

G110 Advance import deposit

A requirement that the importer should deposit a percentage of the value of the import transaction before receiving the goods: no interest is paid on the deposits.

Example: Payment of 50 per cent of the transaction value is required three months before the expected arrival of the goods at the port of entry.

G120 Cash margin requirement

A requirement to deposit the total amount, or a specified part of it, of the transaction value in a foreign currency, in a commercial bank, before the opening of a letter of credit.

Example: Deposit of 100 per cent of the transaction value is required at the designated commercial bank.

G130 Advance payment of customs duties

¹⁶ Can be appealed according to the WTO rules.

A requirement to pay all or part of the customs duties in advance: no interest is paid on these advance payments.

Example: Payment of 100 per cent of the estimated customs duty is required three months before the expected arrival of the goods at the port of entry.

G140 Refundable deposits for sensitive product categories

A requirement to pay a certain deposit which is refunded when the used product or its container is returned to a collection system.

Example: \$100 deposit is required for each refrigerator, which will be refunded when brought in for recycling after use.

G190 Advance payment requirements n.e.s.

G200 Multiple exchange rates

Varying exchange rates for imports, depending on the product category: usually, the official rate is reserved for essential commodities while other goods must be paid for at commercial rates or occasionally by buying foreign exchange through auctions.¹⁷

Example: Only payments for infant food and staple food imports may be made at the official exchange rate.

G300 Regulation on official foreign exchange allocation

G310 Prohibition of foreign exchange allocation

No official foreign exchange allocations available to pay for imports.

Example: Foreign exchange is not allocated for imports of luxury products such as motor vehicles, TV sets, jewellery, etc.

G320 Bank authorization

A requirement to obtain a special import authorization from the central bank.

Example: For imports of motor vehicles, a central bank permit is required in addition to the import licence.

G330 Licence linked with non-official foreign exchange

Licence granted only if non-official foreign exchange is used for the import payment.

G331 External foreign exchange

Licence granted only for imports related to technical assistance projects and other sources of external foreign exchange.

Example: Imports of construction materials are allowed only if payments may be made through the foreign direct investment fund.

G332 Importer's own foreign exchange

Licence granted if the importer has his own foreign exchange held in an overseas bank.

Example: Imports of textile materials are authorized only if the importer can pay directly to the exporter with his own foreign exchange obtained through his export activity abroad.

G339 Licence linked with non-official foreign exchange n.e.s.

G390 Regulation on official foreign exchange allocation n.e.s.

¹⁷ The use of multiple exchange rates are formally prohibited by the GATT 1994.

G400 Regulations concerning terms of payment for imports

Regulations related to conditions of payment of imports and the obtaining and use of credit (foreign or domestic) to finance imports.

Example: No more than 50 per cent of the transaction value can be paid in advance of the arrival of goods to the port of entry.

G900 Finance measures n.e.s.**H000 ANTI-COMPETITIVE MEASURES**

Measures to grant exclusive or special preferences or privileges to one or more limited group of economic operators.

H100 Restrictive import channel

A requirement that all imports, or imports of selected commodities, have to be channelled through specific enterprises or agencies, sometimes state-owned or state-controlled.

H110 State trading administration, for importing

A requirement that all imports, or imports of selected commodities, have to be channelled through a specific state-owned or state-controlled enterprise.

Example: Imports of salt and tobacco are reserved for the respective state trading companies.

H120 Sole importing agency

A requirement that all imports, or imports of selected commodities, have to be channelled through a specific state-designated importing agency.

Example: Crude petroleum can only be imported by the government-designated trading company.

H130 Importation reserved for selected importers

A requirement that certain goods can only be imported by specific categories of importers such as manufacturers, service industry, government departments, etc.

Example: Imports of steel products are reserved for companies which are members of the national steel producers association.

H190 Single channel for imports n.e.s.**H200 Compulsory national service****H210 Compulsory national insurance**

A requirement that imports must be insured by a national insurance company.

H220 Compulsory national transport

A requirement that imports must be carried by a national shipping company.

H290 Compulsory national service n.e.s.**H900 Anti-competitive measures n.e.s.**

I000 TRADE-RELATED INVESTMENT MEASURES**I100 Local content measures**

Requirement to use certain minimum levels of locally made components, restricting the level of imported components.

Example: Imports of clothing are allowed only if more than 50 per cent of the materials used originate from the importing country.

I200 Trade-balancing measures

Measures limiting the purchase or use of imported products by an enterprise to an amount related to the volume or value of local products that it exports:

Example: A company may import materials and other products only up to 80 per cent of its export earnings of the previous year.

I900 Trade-related investment measures n.e.s

*Categories J to O below (marked with *) are included in the classification to collect information from the private sector through surveys and web portals. Examples provided are therefore types of “complaints” that may be expected to fall under the respective categories and subcategories.*

J000 DISTRIBUTION RESTRICTIONS*

Distribution of goods inside the importing country may be restricted. This may be controlled through additional licence or certification requirements.¹⁸

J100 Geographical restriction

Restriction to limit the sales of goods to certain areas within the importing country.

Example: Imported beverages may only be sold in cities which have facilities for recycling the containers.

J200 Restriction on re-sellers

Restriction to limit the sales of imported products by designated retailers.

Example: Exporters of motor vehicles need to set up their own retail points, as existing car dealers in the destination country belong exclusively to car producers in that country.

K000 RESTRICTION ON POST-SALES SERVICES*

Measures restricting producers of exported goods from providing post-sales service in the importing country.

Example: After-sales servicing on imported TV sets must be provided by local service companies of the importing country.

L000 SUBSIDIES (excluding export subsidies under P700)*

Financial contribution by a government or government body to a production structure, being a particular industry or company, such as direct or potential transfer of funds (e.g. grants, loans, equity infusions), payments to a funding mechanism and income or price support.

Note: this category is to be further subdivided after further study on the subject.

Example: Price of imported wheat is much lower than local wheat because of subsidy given in the exporting country.

¹⁸ These restrictions are closely related with regulations of distribution services.

M000 GOVERNMENT PROCUREMENT RESTRICTIONS*

Measures controlling the purchase of goods by government agencies, generally by giving preference to national providers.

Example: Government office has a traditional supplier for its office equipment requirement, in spite of higher prices than similar foreign suppliers.

N000 INTELLECTUAL PROPERTY*

Measures related to intellectual property rights in trade: intellectual property legislation covers patents, trade marks, industrial designs, lay-out designs of integrated circuits, copyright, geographical indications and trade secrets.

Example: Clothing with unauthorized use of trade mark is sold at a much lower price than the authentic products.

O000 RULES OF ORIGIN*

Rules of origin cover laws, regulations and administrative determinations of general application applied by governments of importing countries to determine the country of origin of goods. Rules of origin are important in implementing such trade policy instruments as anti-dumping and countervailing duties, origin marking, and safeguard measures.

Example: It is difficult for machinery products produced in a country to fulfil the rules of origin to qualify for the reduced tariff rate of the importing country, as the parts and materials originate in different countries.

P000 EXPORT-RELATED MEASURES

Export-related measures are measures applied by the government of the exporting country to exported goods.

P100 Export licence, quota, prohibition and other quantitative restrictions

Restrictions to the quantity of goods exported to a specific country or countries by the government of the exporting country for reasons such as: shortage of goods in the domestic market; regulating domestic prices; avoiding anti-dumping measures; or for political reasons.¹⁹

P110 Export prohibition

Prohibition of exports of certain products.

Example: Export of corn is prohibited because of shortage for domestic consumption.

P120 Export quotas

Quotas that limit value or volume of exports.

Example: Export quota of beef is established to guarantee adequate supply in the domestic market.

P130 Licensing or permit requirements to export

A requirement to obtain a licence or permit from the government of the exporting country to export products.

Example: Export of diamond ores are subject to licensing by the Ministry.

¹⁹ All of these measures are formally prohibited by the GATT 1994, but may be applied under specific situations identified in Article XI of GATT 1994.

- P140 Export registration requirements**
A requirement to register products before being exported (for monitoring purposes).
Example: Pharmaceutical products need to be registered before being exported.
- P190 Export quantitative restrictions n.e.s.**
- P200 State trading administration**
All or parts of exports of selected commodities have to be channelled through specific enterprises identified by governments.
Example: Export of some products of strategic importance, such as precious metals might be limited only to certain enterprises authorized by the government.
- P300 Export price control measures**
Measures implemented to control the prices of exported products.
Example: Different prices for exports are applied from those for the same product sold in the domestic market (dual pricing schemes).
- P400 Measures on re-export**
Measures applied by the government of the exporting country on exported goods which have originally been imported from abroad.
Example: Re-export of wines and spirits back to the producing county is prohibited: the practice is common in cross-border trade to avoid imposition of domestic excise tax in the producing country.
- P500 Export taxes and charges**
Taxes collected on exported goods by the government of the exporting country: they can be set either on a specific or ad valorem basis.
Example: Export duty on crude petroleum is levied for revenue purposes.
- P600 Export technical measures**
Export regulations referring to technical specification of products and conformity assessment systems thereof.
- P610 Inspection requirement**
Control over the quality or other characteristics of products for export.
Example: Exports of processed food products must be inspected for sanitary conditions.
- P620 Certification required by the exporting country**
Requirement by the exporting country to obtain sanitary, phytosanitary or other certification before the goods are exported.
Example: Live animals for export must carry individual health certificates.
- P690 Export technical measures n.e.s.**
- P700 Export subsidies**
Financial contribution by a government or government body to an export structure, being a particular industry or company, such as direct or potential transfer of funds (e.g. grants, loans, equity infusions), payments to a funding mechanism and income or price support.
Example: Exports of beef, dairy products, fruit and vegetables are subsidized.
- P900 Export measures n.e.s.**

ANNEX 4. CLASSIFICATION OF PROCEDURAL OBSTACLES

A. ARBITRARINESS OR INCONSISTENCY

1. Behaviour of public officials.
2. Product classification and/or valuation.
3. Application of procedures, regulations, or requirements (including inconsistencies between local and national procedures or regulations).

B. DISCRIMINATORY BEHAVIOUR FAVOURING SPECIFIC PRODUCERS OR SUPPLIERS

1. Local suppliers or producers in the destination market.
2. Suppliers from other countries.
3. Large (or small) companies.

C. INEFFICIENCY OR OBSTRUCTION

1. Excessive documentation requirements.
2. Strict/detailed/redundant testing, certification or labelling.
3. Administrative delay (e.g., in authorization, approval).
4. Complex clearance mechanisms (e.g., several entities have to approve).
5. Short submission deadlines for required information or forms.
6. Outdated procedures, (e.g., lack of automation).
7. Lack of resources, (e.g., understaffing, scarce equipment in destination markets).

D. NON-TRANSPARENCY

1. Inadequate information on laws/regulations/registration.
2. Unannounced change of procedures, regulations or requirements.
3. Lack of inquiry points.
4. Non-transparent government bid or reimbursement processes.
5. Non-transparent dispute resolution.
6. Informal payment expected or required.

E. LEGAL ISSUES

1. Lack of enforcement, e.g., patents, copyrights, trade marks, confidentiality.
2. Inadequate due process/appeals process/dispute resolution.
3. Inadequate legal infrastructure.

F. UNUSUALLY HIGH FEES OR CHARGES

(e.g. for stamps, testing or other services rendered)

QUESTIONNAIRE

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