

# **CHEMICAL CONTROLS**



## Executive Summary

The production of methamphetamine continued to shift from small-scale domestic producers within the United States to large “super-labs” in Mexico and other international locations in 2007, continuing a trend first described in last year’s report. This pattern is at least partially due to increasingly effective domestic controls over the retail sale of licit pharmaceutical preparations containing ephedrine and pseudoephedrine, the primary chemicals necessary for methamphetamine. Regulations for the sale of such products in the U.S. became effective at the national level for the first time in late 2006 under the Combat Methamphetamine Epidemic Act (CMEA). To capitalize on these gains and prevent production from merely shifting locations, the U.S. Government enhanced the scale and pace of its law enforcement cooperation with the Government of Mexico to target the production and trafficking of methamphetamine. For its part, the Government of Mexico demonstrated unprecedented political commitment towards stemming the illicit diversion of chemicals required for methamphetamine production. The Government of Mexico determined in September of 2007 that it would issue no further licenses for the importation of any amount of ephedrine, pseudoephedrine, and any product containing these chemicals. Sellers of ephedrine and pseudoephedrine products must deplete their remaining stores of products containing these chemicals by 2009, after which the use of these products will be illegal in Mexico.

This new policy has the potential to significantly disrupt the methamphetamine trade in the years ahead. To further institutionalize U.S.-Mexico cooperation and to support Mexico’s implementation of its domestic efforts, Mexico and the United States have jointly developed a comprehensive, multi-year law enforcement cooperation strategy known as the “Merida Initiative.” In addition to helping improve Mexico’s ability to interdict methamphetamine and other illegal drugs, this initiative would seek to disrupt methamphetamine production and strengthen Mexico’s ability to attack drug trafficking organizations controlling the trade. This comprehensive proposal also would provide assistance to enhance border and chemical precursor controls in Mexico’s Central American neighbors, to prevent increased smuggling of precursor chemicals from Central America into Mexico—a likely scenario given the ban on ephedrine and pseudoephedrine imports into Mexico.

Steps taken by the United States in 2006 to engage the United Nations and the International Narcotics Control Board (INCB) more actively on methamphetamine and other synthetic drugs also produced notable results in 2007, both in terms of operational law enforcement cooperation and international regulatory efforts to track the commercial flow of precursor chemicals. In 2007, the INCB’s Project Prism task force initiated *Operation Crystal Flow*, which focused on monitoring the shipment of precursor chemicals between the Americas, Africa, and West Asia and identified 35 suspicious shipments and stopped the diversion of 53 tons of precursor chemicals.

Building on the passage of a U.S.-sponsored 2006 CND (Committee on Narcotic Drugs) resolution that requested governments to provide an annual estimate of licit precursor requirements and to track the export and import of such precursors, the United States in 2007 supported a resolution drafted by the European Union that urged countries to strengthen controls on pseudoephedrine derivatives and other precursor alternatives. The INCB Secretariat’s program to monitor licit shipments of precursor chemicals was further strengthened by the availability of these national licit estimates, which were provided by over 100 countries and territories. The INCB is using these estimates to evaluate whether a chemical shipment appears to exceed legitimate commercial needs, and also is using this data to work with the relevant countries that can block shipments of chemicals before they are diverted to methamphetamine production. The United States will

continue to urge countries that have not provided such commercial data to the INCB to do so, and consider providing technical assistance through the INCB to states that currently lack the technical expertise to develop national estimates.

The United States is keenly aware that drug traffickers are adaptable, well-informed, and flexible. New transshipment routes may be emerging in Southeast Asia and Africa, and there is also ample evidence that organized criminal groups ship currently uncontrolled chemical analogues of ephedrine and pseudoephedrine for use in manufacturing illicit methamphetamine-type drugs. Alternative production methods instead of the predominant “ephedrine reduction” method is also a major concern. This issue has become a mainstream, high-priority of USG and international community, and we will continue to push for greater international activism to combat this threat in both bilateral and multilateral settings.

Combating the supply of methamphetamine is critical, but chemical control is much broader than methamphetamine and other synthetic drugs. Plant-based drugs such as cocaine and heroin also require precursor chemicals for processing, and cutting off supply of these chemicals is critical to U.S. drug control strategy. International efforts have a longer track record in targeting the illicit diversion of the most common precursors for cocaine and heroin—potassium permanganate and acetic anhydride, respectively. Less than 1 percent of worldwide licit commercial use of these chemicals is required to produce the world’s supply of cocaine and heroin, and curbing supplies is an enormous challenge.

In 2007, the United States joined with international partners to bring new focus on precursor chemical trafficking through and around Afghanistan and its neighbors—the source of 93 percent of the world’s opium poppy, and the location of an increasingly high percentage of heroin production. At the political level, the United Nations Office on Drugs and Crime (UNODC) hosted a series of meetings under the Paris Pact law enforcement coordination mechanism to promote expanded international cooperation between law enforcement agencies active in border control through and around Afghanistan. At the operational law enforcement level, the INCB-coordinated law enforcement task force Project Cohesion continued to produce positive results in international law enforcement cooperation to seize smuggled shipments. Illicit smuggling of precursors in countries along Afghanistan’s opium supply chain remains a challenging problem due to widespread gaps in intelligence and limited specialized law enforcement expertise in detecting chemicals internationally. However, the United States and international partners have made substantial progress in developing an infrastructure capable of achieving future progress, particularly in the areas of sharing intelligence, promoting law enforcement cooperation and expanding regulatory expertise in the region.

In South America, Project Cohesion focuses on monitoring the imports of potassium permanganate to the cocaine processing areas. At the May 2007 meeting of the Project Cohesion Task Force, participants expressed concern over the paucity of information pertaining to the trade of potassium permanganate in Latin America. In order to gather additional information on this topic, DEA organized a meeting in September 2007 that was attended by most of the countries in Latin America, including Mexico and Colombia.

The U.S. also will consider additional ways in which it might increase cooperation with international chemical producers and transporters in the private sector in order to promote effective diversion-prevention practices.

# Background

## Precursors and Essential Chemicals

Chemicals play two essential roles in the production of illegal drugs: as active chemical inputs for the production of synthetic drugs such as methamphetamine and Ecstasy; and as refining agents and solvents for processing plant-based materials such as coca and opium into finished drugs such as cocaine and heroin. Active chemical ingredients used in synthetic drugs are known as “precursor” chemicals due to the fact that they become part of the finished drug, whereas chemicals used to process plant-based drugs are referred to as “essential” chemicals. As a form of shorthand, both sets of chemicals are often referred to as “precursor chemicals,” and for the sake of brevity, this term is used interchangeably for both categories throughout this report.

## International Regulatory Framework for Chemical Control

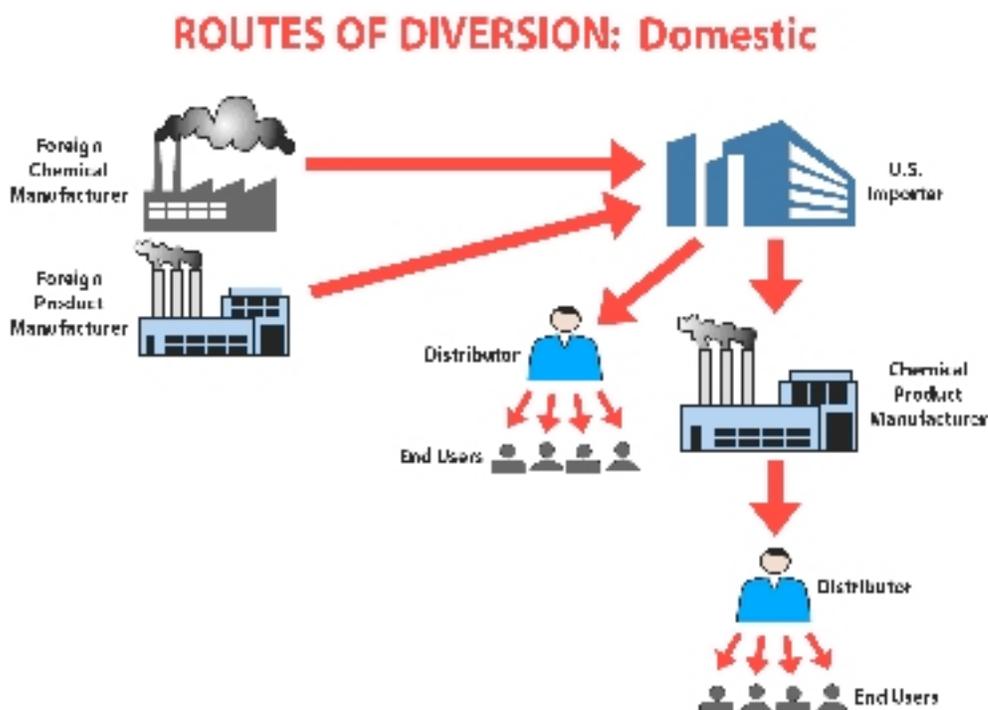
Preventing the diversion of precursor chemicals from legitimate trade is one of the key goals of the 1988 UN Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances. Specifically, state parties are required under article 12 of the 1988 Convention to monitor international trade in chemicals listed under Tables I and II of the Convention. These lists of chemicals have been regularly updated to account for evolutions in the manufacture of illicit drugs, and state parties are required to share information with one another and with the International Narcotics Control Board (INCB) on international transactions involving these chemicals. The Convention further encourages state parties to license all persons and enterprises involved in the manufacture and distribution of listed chemicals, and subsequent resolutions from the UN Commission on Narcotic Drugs (CND)—the UN’s primary narcotic drug policy-making organ—have provided additional guidance to states on how to implement these obligations according to specific best practices. The underlying strategy is to closely monitor the trade in drug precursors and prevent transactions to suspicious customers.

In 1996, the U.S. supported a CND resolution that added a special monitoring list of chemicals that are not included in the Convention but for which substantial evidence exists of their use in illicit drug manufacture. Reporting requirements on these non-listed chemicals is voluntary under international law, but widely implemented in practice under INCB supervision. As with officially controlled chemicals listed under Articles I and II of the 1988 Convention, this special surveillance list is regularly updated to account for evolutions in drug production trends. Still, it takes time to get new near analogues of existing precursors listed and organized criminals vigorously exploit delays and gaps in the listings.

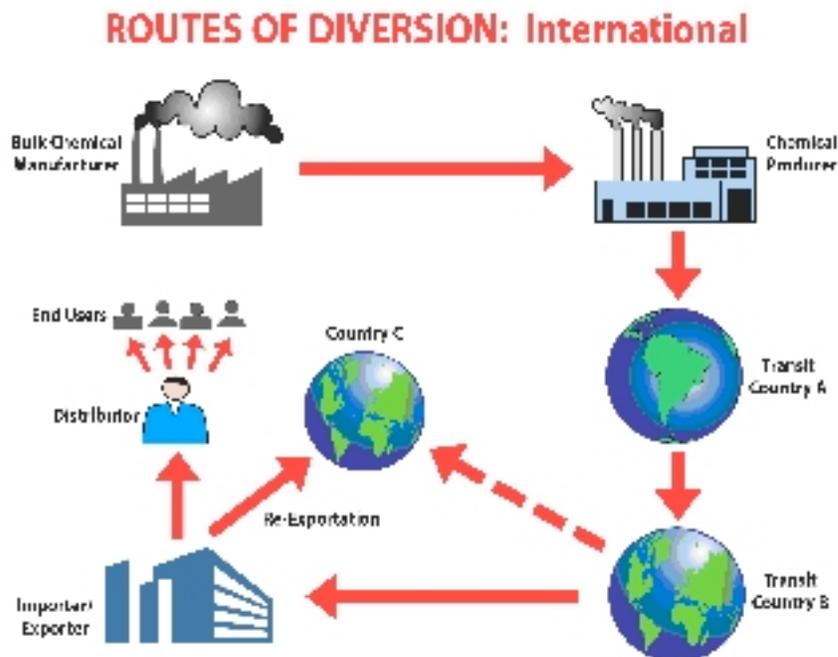
The regulatory framework codified by the United Nations is the most universally accepted and carries the broadest reach internationally, but it does not exist in isolation. Regional international bodies also have worked to complement the UN’s regulatory regime and implement its goals. In February 2004, the European Union (EU) enacted binding legislation to regulate chemical control monitoring between all of its 27 member states. External trade between the European Union and international actors has been similarly covered since January 2005. This EU legislation has been subsequently enhanced by additional implementing legislation, as well as by less formally-binding measures to promote voluntary cooperation with private industry to implement best-practices for preventing diversion. The United States and the EU have had an agreement in place to cooperate on chemical control issues since 1997, and policy coordination has taken place regularly through regular bilateral meetings alternating between Washington and Brussels. The EU also has actively collaborated with the U.S. on multilateral chemical control initiatives, including CND resolutions. The Organization of American States also is engaged on the issue of chemical control.

## Diversion Methods

From the wide variety of chemicals that are needed for legitimate commercial and pharmaceutical purposes, a relatively small number also can be misused for the production of illegal drugs. Drug traffickers rarely produce these chemicals independently, as this would require advanced technical skills and a sophisticated infrastructure that would be difficult to conceal. Instead, criminals most often illegally divert the chemicals that they need from otherwise licit trade. Diversion from licit trade takes two main forms. First, the chemicals may be purchased from manufacturers or distributors. This can be done directly by traffickers or through unsuspecting or complicit third parties. Chemical producers also may be complicit in diversion schemes, but this is less frequent; most diversion takes place due to the ability of criminals to exploit gaps in the regulatory framework in place to monitor the trade in drug precursors and identify suspicious transactions. The supply chains for chemicals can be very complex, with several intermediary “traders” located between a manufacturer and an end user. This complex supply chain makes it more difficult for governments to pick the right point to intervene with regulatory control regimes and licensing.



International trade in precursor chemicals can be exploited by traffickers through a variety of means. Chemicals can be imported legally into drug-producing countries with official import permits and subsequently diverted—sometimes smuggled into neighboring drug-producing countries. Particularly in parts of the developing world, traffickers can simply pick the path of least resistance and arrange for chemicals to be shipped to countries where no viable regulatory systems exist for their control. Criminals also employ stratagems to conceal their true identities and the controlled chemicals that they require. Often, traffickers conceal their identity by using front-companies or by misusing the names of well-known legitimate companies. They also may obtain chemicals by bribing or blackmailing the employees of legitimate companies, or by disguising the destination or nature of chemical shipments by mislabeling or re-packaging controlled chemicals as unregulated materials.



The second major form of diversion is through theft, from either storage or during transit. Criminals often have employed violence to steal chemical supplies. For example, in Mexico in July 2006, four guards were killed during a theft of 1,000 kilograms of ephedrine.

Transshipment or smuggling from third countries into drug producing countries appears to be increasing, mainly in response to the increasing efforts of more countries to implement legislative and administrative controls to prevent diversion from legitimate commercial trade. Criminals also are taking greater advantage of finished pharmaceutical products by extracting their precursor chemical ingredients, particularly those containing pseudoephedrine, a key precursor for methamphetamine. Pharmaceutical preparations are not controlled by the 1988 UN Drug Control Convention, and can be traded internationally without being subject to the reporting requirements in place for raw or bulk chemicals.

### 2007 Chemical Diversion Control Trends and Initiatives

The United States is a leader in international chemical control efforts, but the diffuse nature of the threat requires international cooperation and commitment if we are to be effective. To increase our impact, the United States works closely with other governments and the multilateral institutions that have long underpinned international drug control, principally the United Nations and its affiliated International Narcotics Control Board (INCB). The INCB in particular is a strong ally to the United States in coordinating international efforts to combat the production and spread of illegal drugs through cutting off sources of precursor chemicals. In 2007, the INCB coordinated several law enforcement operations that bore notable results.

The most significant INCB-coordinated operation was Operation Crystal Flow, a time-limited operation developed under the ongoing Project Prism (a group of national law enforcement authorities from 127 countries working together to prevent diversion of controlled chemicals) that focused on the trade of ephedrine, pseudoephedrine and pharmaceutical preparations containing both chemicals. The law enforcement agencies of 65 countries took part in this operation, which was motivated by strong concerns that large amounts of these precursors were being diverted

across Asia, Africa and Latin America into illicit channels to and throughout North America to be used for the manufacture of methamphetamine. This operation was conducted over a six-month period from January through June 2007, and its major elements included: the sending of pre-export notifications by using the INCB's online system for reporting shipments of ephedrine, pseudoephedrine, ephedra, including pharmaceutical preparations to the extent possible; the verification of the legitimacy of importers and end-users; the identification of suspicious transactions; in the event of identifying suspicious transactions, law enforcement information-sharing among the regional task force members; the launching of backtracking investigations in the event of seizures and stopped shipments; and conducting controlled deliveries in the event of seizures. The INCB Secretariat served as a global focal point for the exchange of information.

Crystal Flow was hugely successful and led to over 53 tons of ephedrine and pseudoephedrine being suspended, stopped, or seized. These chemicals were capable of producing approximately 48 tons of methamphetamine with an estimated street value of approximately \$4.8 billion. In addition to the tangible law enforcement results reflected in the seizures, the operation generated unprecedented cooperation between law enforcement agencies of countries that had rarely taken part in joint-investigations previously. These countries included producer, transit and recipient countries of precursor chemicals from six continents, and this shared networking produced a solid foundation for future cooperation.

Crystal Flow also identified the African continent as a major transit point for trafficking. In total, over 47 tons of ephedrine and pseudoephedrine were prevented from being diverted to or through Africa. One of the most commonly used methods of diversion in 2007 was the falsification of import permits. The chemical regulatory and law enforcement capacities of governments in this region are currently not adequate to the scale of this challenge, and controls over pharmaceutical preparations are often non-existent or less stringent than in other parts of the world.

As the source of 93 percent of the world's opium poppy and location of an increasingly high percentage of heroin production, Afghanistan remains one of the world's most challenging drug control environments on a variety of fronts, including precursor chemical control. In 2007, the United States joined with international partners to bring new focus on precursor chemical trafficking through and around Afghanistan and its neighbors by convening a first-of-its kind meeting of governments and chemical control experts under the UNODC Paris Pact law enforcement coordination mechanism. The conference sought to expand international cooperation between law enforcement agencies active in border control through and around Afghanistan, and brought together 94 participants from 27 countries and 10 international organizations. The meeting identified recommended practices and lessons learned for investigating illicit trafficking in acetic anhydride across the region, and endorsed a proposal for time-limited targeted operations in Afghanistan and neighbouring countries to be held in 2008, "Operation Tarcet."

These future operations will build on INCB-coordinated interdiction operations that continued throughout 2007 in the region, particularly Operation Containment. Operation Containment is a large-scale multinational law enforcement initiative, under the leadership of the DEA and underway since 2002, that emphasizes coordination and information sharing among countries from Central Asia, the Caucasus, Europe and the Russian Federation. The program aims to implement joint strategies to tackle the issue of drug trafficking organizations and its primary goal is to seize as much heroin as possible out of South West Asia before it reaches its market. Since 2002 the operation has resulted in 23 significant seizures of narcotics and precursor chemicals, major arrests and intelligence gathering.

Methamphetamine production, transit, and consumption remain significant problems in Asia. To help stem production, trafficking, and abuse in East and South East Asia, the U.S. supported bilateral and multilateral initiatives in 2007 that included UNODC's project to promote regional

cooperation for precursor chemical control in the South East Asian region. The U.S. Department of Defense through Joint Interagency Task Force (JIATF) West also continues to support Interagency Fusion Centers (IFCs) in various partner nations throughout Asia. The mission of the IFCs is to contribute to developing host nation infrastructure and aid local law enforcement to fuse and share information to detect, disrupt and dismantle drug and drug-related national and transnational threats. Our efforts have helped local enforcement officials to improve their investigative skills and encouraged cooperation across borders, a prerequisite for success in controlling this intrinsically international business. The United States also has provided law enforcement training to Indonesia and the Philippines, including basic drug investigations, chemical control, and clandestine laboratory identification (and clean-up) training. These relatively low-cost programs help to encourage international cooperation with these countries in pursuing our common counternarcotics and broader geopolitical objectives with the countries of the region, as well as undercut illegal drug producers that could eventually turn their sights on U.S. markets.

The vast majority of illegal drugs entering the United States continue to originate from within the Western Hemisphere. Potassium permanganate is an oxidizer that has many legitimate industrial uses such as wastewater treatment, disinfecting, and deodorizing. It is also the primary chemical precursor used in the production of cocaine. Its main illicit use is to remove the impurities from cocaine base. Potassium permanganate also can be combined with pseudoephedrine to produce methcathinone, a synthetic stimulant that is also a controlled substance.

In July 2007, Mexican authorities seized 20,000 kilograms of potassium permanganate at the Port of Manzanillo, in Mexico, that originated in Taiwan. These same two companies involved in this shipment were serial offenders, having been involved in two similar shipments of approximately 20 tons of potassium permanganate that were seized at the Port of Manzanillo, Colima, Mexico, in October 2006 and November 2005. The November 2005 seizure was the subject of a Special Alert under Project Cohesion, an INCB project designed, among other things, to target the flow of potassium permanganate.

2007 also saw progress in the development of a more complete and systematic reporting regime covering the international trade in synthetic drug precursors. In 2006, a U.S.-sponsored resolution entitled *Strengthening Systems for Control of Precursor Chemicals Used in the Manufacture of Synthetic Drugs* was adopted by consensus at the 49th UN Commission on Narcotic Drugs (CND). This resolution provided a way to institutionalize the process for collecting information on synthetic drug precursor chemicals. Specifically, the resolution requests that countries provide the INCB with annual estimates of their legitimate requirements for methamphetamine precursors pseudoephedrine, ephedrine, and phenyl-2-propanone (P2P); the Ecstasy precursor PMK; and the pharmaceutical preparations containing these substances. The resolution also requests countries to permit the INCB to share such information with concerned law enforcement and regulatory agencies.

Over the past year, the U.S. worked with the INCB and other international allies to urge countries to take steps towards implementing this resolution. This has not been a simple task for many developing countries, as it requires as a prerequisite a considerable infrastructure of commercial information and regulation. Considerable progress has been made, however, and at the end of 2007, the INCB reports that more than 100 countries and jurisdictions are now cooperating and providing voluntary reporting on their licit requirements for the aforementioned chemicals. The INCB has published the data collected in its annual report on precursor chemicals and updates the information regularly on its website. The data serves as a baseline for authorities in importing and exporting countries, facilitating quick “reality checks” on the chemicals and the quantities proposed in commercial transactions. Such checks enable authorities to determine whether importation is warranted – or, if no legitimate commercial use is apparent, whether pending shipments require additional law enforcement scrutiny.

To promote the full implementation of the CND resolution and support ongoing INCB activities, including Project Prism, the Department of State contributed \$700,000 in Fiscal Year 2006 funds and an additional \$700,000 in Fiscal Year 2007 funds, which more than doubles the previous contributions made during any prior fiscal year.

Additional success also was achieved in 2007 by attacking the finances of chemical diversion traders. The highlight of this tactical approach was the 2007 arrest by U.S. law enforcement of Zhenli Ye Gon, a Chinese-born Mexico City businessman. In March of 2007, Mexican officials found and seized more than \$200 million in U.S. currency, as well as various foreign currencies hidden in his mansion in Mexico City. This is the largest single seizure of drug cash in history. Mr. Ye Gon has been indicted in Washington on federal charges of conspiring to manufacture methamphetamine destined for the United States. In addition, Mexican prosecutors have charged Mr. Ye Gon with drug trafficking, money laundering, and weapons possession for his alleged role in illegally importing 19 tons of pseudoephedrine, and have requested his extradition. In the coming year, U.S. law enforcement will continue to target the financial vulnerabilities of chemical diversion financiers and make greater use of asset seizure laws wherever possible.

## The Road Ahead

The U.S. will continue to encourage other countries to actively provide information on legitimate commercial precursor chemical shipments and estimates on legitimate commercial needs to the INCB, and to provide the necessary support to the INCB to enable it to fulfill its expanding role. We also will urge the international community to include this subject for discussion in upcoming international fora, including the 51st CND in March 2008 and its subsequent review of progress achieved in combating ATS since the 1998 UN General Assembly Special Session on Drugs (UNGASS). The UNGASS review also will be another opportunity to champion international cooperation to prevent the diversion of precursor chemicals. The Department of State, DEA, and ONDCP also will work to identify new mechanisms that might promote the broader exchange of information and expertise pertinent to the control of methamphetamine and other synthetics.

In addition, a major forum to advance methamphetamine controls in this hemisphere is the Inter-American Drug Abuse Control Commission (CICAD), the counternarcotics arm of the Organization of American States (OAS). OAS/CICAD receives considerable U.S. funding to counter the trafficking and abuse of illegal drugs, including methamphetamine. Guided at the policy level by the CICAD Commissioners (delegates from 34 Member States in the region), the Supply Reduction Unit of CICAD carries out a variety of initiatives in this important field supported by its Experts Groups on Chemicals and Pharmaceuticals, which usually meet annually.

The issue of precursor chemicals and the need to tighten controls in the Western Hemisphere has been upgraded politically and practically via the OAS/CICAD's Multilateral Evaluation Mechanism (MEM), through which the 34 Member States evaluate drug control progress and take initiatives to advance steps across the board against illegal drug trafficking. Through the MEM, countries have received many recommendations with respect to chemical controls. While implementation of these recommendations still requires additional follow-through, there is a very clear understanding of where improvements need to be made, and governments as well as the private sector are seeking to remedy the situation through increased funding, revision of laws, training and other means of monitoring of chemical transshipments.

In 2007, OAS/CICAD held five specialized training seminars with participants from 15 countries in Latin America and the Caribbean on tools and techniques available to investigate illegal sales of drugs over the internet. OAS/CICAD also coordinated training seminars throughout the region on topics that included the contributions of the private sector in preventing the diversion of precursor chemicals and the safe disposal of seized chemicals.

The increase in the use of unregulated substitute chemicals in synthetic drug manufacture also will require more attention. The United States highlighted this problem at the March 2007 session of the Commission on Narcotic Drugs, and the United States will continue urging governments to notify the INCB and other international partners as they discover this usage. This will facilitate a quick reaction to the substitute chemicals, and allow the INCB to update its surveillance list of chemicals not included in the 1988 UN Drug Control Convention that are being used in illicit drug manufacture.

The United States will need to continue and expand its work with governments across the Western Hemisphere to counter the efforts of criminals seeking to circumvent stricter diversion-prevention efforts in the U.S. and Mexico. In 2007, DEA joined with the UN Office on Drugs and Crime (UNODC) and two components of the Government of Mexico – the chemical and drug regulatory entity COFREPRIS and the Mexican Attorney General's Office (PGR) – in an ambitious program of assessment and training to prepare Central American governments to respond to nascent chemical diversion through their territories. Further efforts will be needed to continue and consolidate those efforts.

The United States also will consider additional ways in which it might increase cooperation with international chemical producers and transporters in the private sector in order to promote effective diversion-prevention practices. The INCB recently convened an international conference attended by chemical control experts and international chemical industry representatives to discuss guidelines for such public/private sector cooperation on diversion prevention. Working with our international partners, the U.S. will consider follow-up activities to build on this outreach and implement stronger voluntary measures.

## Major Chemical Source Countries and Territories

The countries included in this section are those with large chemical manufacturing or trading industries that have significant trade with drug-producing regions, and those countries with significant chemical commerce susceptible to diversion domestically for smuggling into neighboring drug-producing countries. Designation as a major chemical source country does not indicate a country lacks adequate chemical control legislation and the ability to enforce it. Rather, it recognizes that the volume of chemical trade with drug-producing regions, or proximity to them, makes these countries the sources of the greatest quantities of chemicals liable to diversion. The United States, with its large chemical industry and extensive trade with drug-producing regions, is included on the list.

Many other countries manufacture and trade in chemicals, but not on the same scale, or with the broad range of precursor chemicals, as the countries in this section.

Article 12 of the 1988 UN Drug Convention is the international standard for national chemical control regimes and for international cooperation in their implementation. The annex to the Convention lists the 23 chemicals most essential to illicit drug manufacture. The Convention includes provisions for the Parties to maintain records on transactions involving these chemicals, and to provide for their seizure if there is sufficient evidence that they are intended for illicit drug manufacture.

### *The Americas*

#### **Argentina**

Argentina is one of South America's largest producers of precursor chemicals, which are vulnerable to diversion for use in the processing of cocaine and other illegal narcotics.

Argentina is a party to the 1988 UN Drug Convention and has laws meeting the Convention's requirements for record keeping, import and export licensing, and the authority to suspend shipments. Presidential decrees have placed controls on precursor and essential chemicals, requiring that all manufacturers, importers or exporters, transporters, and distributors of these chemicals be registered with the Secretariat for the Prevention of Drug Addiction and Narcotics Trafficking (SEDRONAR). In 2005, legislation was passed giving the SEDRONAR registry system the force of law. This increased its ability to regulate the distribution of precursors and impose fines on those who transport and sell unregistered chemicals. To date, the National Registry of Precursor Chemicals has registered 6,658 companies. In May 2007, SEDRONAR and the National Institute of Vitivicultura (grape and wine producers) signed an agreement registering another 3,278 companies in the Registry. In the first seven months of 2007, the Registry added 1,019 new companies, re-registered 3,084, and issued 302 export authorizations and 1,349 import authorizations.

With DEA support, Argentina continues to participate in Project Cohesion and the regional Operation Seis Fronteras ("Six Frontiers"). Argentina also participates in "Operation Andes III," a joint program sponsored by Interpol and the World Customs Organization (WCO) to coordinate the interdiction of precursor chemicals in South America. Participants included national police and customs agencies from Argentina, Brazil, Bolivia, Chile, Colombia, Ecuador, French Guyana,

Paraguay, Peru, Uruguay and Venezuela. U.S. Immigration and Customs Enforcement (ICE) provided advisory support for precursor shipment identification and investigative response.

Argentine authorities willingly share chemical control information with U.S. authorities. From January 2006 through September 2006, the DEA-funded Northern Border Task Force (NBTF) seized approximately 684,220 kilograms of illicit chemicals, a significant increase over the amount of illicit chemicals seized during the same periods in 2005 and 2004.

### **Brazil**

Brazil has South America's largest chemical industry and also imports significant quantities of chemicals to meet its industrial needs. Brazil's Justice Ministry issued a decree in August 2004 that includes stringent chemical control provisions to prevent the manufacture of illicit drugs. The decree established controls on 146 chemicals that can be utilized in the manufacture of drugs, and requires the registration with the Brazilian Federal Police of all companies that handle, import, export, manufacture, or distribute any of these chemicals. There are approximately 25,000 companies registered with the police. The registered companies are required to send a monthly report to the Brazilian Federal Police on the usage, purchases, sales, and inventory of these chemicals. Any person or company that is involved in the purchase, transportation or use of these substances must have a certificate of approval of operation, real estate registry, or special license issued by the police. Companies that handle the 22 most sensitive substances with regard to drug production also are regulated by the Ministry of Health's National Sanitary Vigilance Agency.

Brazil is a party to the 1988 UN Drug Convention and these legislative provisions meet the chemical control requirements. The country also participates and supports the multilateral chemical control initiatives Project Cohesion, Project Prism, and the regional Operation Seis Fronteras. In conjunction with Project Cohesion, the Brazilian Federal Police have agreed to work with DEA to perform a study on the use of acetic anhydride within the country and its exportation from the country. US/Brazil cooperation in other areas of chemical control is good, and the Brazilian Federal Police make records relating to chemical transactions available when requested. The Brazilian Federal Police also respond to Pre-Export Notifications of controlled chemicals in a timely fashion. DEA has a Diversion Investigator assigned to its Brasilia office.

### **Canada**

Canada is a producer and transit country for precursor chemicals and over-the-counter pharmaceuticals used to produce synthetic drugs, particularly methamphetamine and MDMA (Ecstasy). The United States has worked closely with Canada in countering these threats, and the Government of Canada has made a serious effort to curb the diversion of precursor chemicals that are required for methamphetamine production to feed domestic and U.S. illegal markets. Canadian law enforcement authorities also have worked productively with U.S. counterparts in joint law enforcement operations that have disrupted drug and currency smuggling operations along both sides of the border. Although U.S.-Canadian law enforcement cooperation and the strengthening of Canadian chemical control laws and enforcement have helped to significantly reduce the amount of Canadian-sourced pseudoephedrine discovered in clandestine U.S. methamphetamine labs, there is some evidence that Canada's domestic production of methamphetamine and MDMA is increasing – a situation which will require careful monitoring on both sides of the border. We will continue to work closely with our Canadian partners to identify and dismantle methamphetamine laboratories, and to prevent further illicit diversion of precursor chemicals.

Canada is a party to the 1988 UN Convention and complies with its record keeping requirements. Canada participates in Project Prism, targeting synthetic drug chemicals, and is a member of the

North American working group. Although it supports Project Cohesion and contributes on an ad hoc basis, it is not actively engaged in it.

### **Chile**

Chile has a large petrochemical industry involved in the manufacturing, importation, and exportation of thousands of chemical products and by-products. Chile is a source of precursor chemicals for use in coca processing in Peru and Bolivia. In 2003, Chilean law enforcement entities began to take a greater interest in chemical diversion within Chile and created specialized chemical diversion units. Since the creation of these units, and with international law enforcement cooperation, Chilean precursor chemical seizures have increased. In 2007, regulations also were approved to implement a 2005 law that established new authorities to register and inspect companies that produce, use, import or export any of 65 types of legally produced chemicals that also are used in the production of illegal drugs.

### **Mexico**

Mexico has major chemical manufacturing and trading industries that produce, import, and export most of the chemicals necessary for illicit drug manufacture. The country is party to the 1988 UN Drug Convention and has laws and regulations meeting its chemical requirements. Mexican chemical control initiatives are now concentrating on methamphetamine precursors. The United States works closely with the Government of Mexico on a wide range of counternarcotics, law enforcement, and border security initiatives, and provides assistance and training that specifically targets methamphetamine production and trafficking.

Mexico is aware of the methamphetamine threat and is making progress in limiting imports of the essential chemicals used to produce methamphetamine. Between 2002 and 2004, Mexico recognized that these imports far exceeded legitimate demand, and the government enacted a series of regulations and policies to restrict imports and better regulate the sale of precursor chemicals. First, between 2004 and 2005, the Mexican government banned pseudoephedrine imports of over three tons, restricted the importation of pseudoephedrine to only registered drug manufacturers, and required that pseudoephedrine in transit be kept under armed guard. Prior to 2004, Mexico had not implemented strong precursor controls, resulting in the importation of 216 metric tons of pseudoephedrine. In 2007, unofficial estimates are that only 12 tons were imported. In September 2007, the Government of Mexico determined that it would issue no further licenses for the importation of ephedrine, pseudoephedrine, and products containing these chemicals. Sellers of ephedrine and pseudoephedrine products must deplete their remaining stores of products containing these chemicals by 2009, after which use of these products will be illegal in Mexico. This new policy is a bold move that promises to significantly disrupt the methamphetamine trade in the years ahead.

The Mexican government also is improving commercial tracking systems of precursor chemicals, and is enhancing its ability to detect possible front companies and counter illicit financial transactions related to methamphetamine trafficking. However, the threat of illegal smuggling of precursor chemicals and pharmaceutical preparations from third countries into Mexico will continue to be a challenge.

With support and funding from the U.S. Department of State's Bureau for International Narcotics and Law Enforcement Affairs (INL), DEA has assisted in the establishment of Mexican Clandestine Laboratory Response Teams to target organizations involved in the operation of clandestine methamphetamine labs, and have provided four training courses in 2007 to over 250 law enforcement personnel, including one course specifically concerning Clandestine

Methamphetamine Labs. To date, the Government of Mexico has trained over 2,100 law enforcement and public safety officers in methamphetamine enforcement techniques.

Newly vetted law enforcement personnel trained in methamphetamine investigations have been assigned to five major methamphetamine production areas in Mexico. The U.S. also is supporting the new Federal Police Corps and its Special Investigative Units (SIUs) with specialized equipment, vehicles and computers. The U.S. Department of State also is providing equipment and maintenance support for previously donated CLANLAB vehicles specially designed to take down methamphetamine laboratories, such as safety/toxin suits and emergency chemical trauma kits. In 2007, 16 methamphetamine labs were seized, including one super lab. The U.S. is also providing non-intrusive inspection equipment (NIIE) to the Mexican Government to interdict contraband, including precursor chemicals. NIIE is state-of-the-art systems that scan cargo containers and passenger luggage. Thirteen large gamma ray devices (VACIS) are located at land border crossings, one unit is located in Mexico City, and three mobile units are deployed throughout Mexico. Three x-ray vans are located at international airports. INL also plans to add six or more additional NIIEs at the U.S. land border, sea/airports, and southern Mexico this fiscal year. As part of our overall counternarcotics programs, INL also plans to promote education and public awareness concerning the rising threat of methamphetamines in Mexico and the environmental impact of its production.

### **The United States**

The United States manufactures and/or trades in all 23 chemicals listed in Tables I and II of the 1988 UN Drug Convention. It is a party to the Convention and has laws and regulations meeting its chemical control provisions.

The basic U.S. chemical control law is the Chemical Diversion and Trafficking Act of 1988. This law and 5 subsequent chemical control amendments were all designed as amendments to U.S. controlled substances laws, rather than stand-alone legislation. The Drug Enforcement Administration (DEA) is responsible for administering them. In addition to registration and record keeping requirements, the legislation requires traders to file import/export declarations at least 15 days prior to shipment of regulated chemicals. DEA uses the 15-day period to determine if the consignee has a legitimate need for the chemical. Diversion investigators and special agents work closely with exporting and receiving country officials in this process. If legitimate end-use cannot be determined, the legislation gives DEA the authority to stop shipments.

U.S. legislation also requires chemical traders to report to DEA suspicious transactions such as those involving extraordinary quantities, unusual methods of payment, etc. Close cooperation has developed between the U.S. chemical industry and DEA in the course of implementing the legislation. Criminal penalties for chemical diversion are strict; they are tied to the quantities of drugs that could have been produced with the diverted chemicals. Persons and companies engaged in chemical diversion have been aggressively and routinely subjected to civil and criminal prosecution and revocation of DEA registration.

The U.S. has played a leading role in the design, promotion and implementation of cooperative multilateral chemical control initiatives. It is actively working with other concerned countries, the United Nations Office of Drugs and Crime (UNODC), and the International Narcotics Control Board (INCB) to develop information sharing procedures to better control pseudoephedrine and ephedrine, the principal precursors for methamphetamine production. It is on a task force for both Operation Cohesion and Project Prism. It also has established close operational cooperation with counterparts in major chemical manufacturing and trading countries. This cooperation includes information sharing in support of chemical control programs and in the investigation of diversion attempts.

## *Asia*

### **China**

China has one of the world's largest chemical industries, producing large quantities of chemicals that can be used for illicit drug manufacture such as acetic anhydride, potassium permanganate, piperonylmethylketone (PMK) and pseudoephedrine and ephedrine. The country is a party to the 1988 UN Drug Convention and has laws and regulations meeting or exceeding the Conventions requirements. A November 2005 administrative law strengthening chemical control included provisions to control domestic chemical sales; previous laws and regulations focused solely on imports and exports. Chinese law regulates drug preparations containing precursor chemicals, but as medicines rather than regulated chemicals. Despite the adequate legislation, the size of China's chemical industry is not matched by a law enforcement structure adequate to effectively monitor all its production and domestic and international trade. The sheer scale of China's chemical industry—nearly 80,000 chemical companies, according to one estimate—presents widespread opportunities for chemical diversion, and regulatory oversight remains a major challenge for China's central authorities, particularly in some provinces. Although provincial police are taking a more active role to investigate illicit chemical transactions, the lack of officers assigned to investigate these potential diversions on a full-time basis may mean many suspect and clearly illicit transactions go unnoticed. It is also unclear whether sufficient controls exist to safeguard the storage and transit of precursor chemicals, and drug preparations containing them, across the country to guard against theft.

China is a major producer of licit ephedrine and pseudoephedrine, as well as ephedra, all of which can be used in the manufacture of methamphetamine. There is a widespread belief among law enforcement agencies, worldwide, that large-scale illicit methamphetamine producers in other countries use Chinese-produced ephedrine and pseudoephedrine, and there are numerous examples from criminal investigations to confirm this suspicion. Diverted Chinese precursor chemicals may undergo synthetic drug production in other countries as far away as Mexico, Belgium, and the Netherlands. Although China enacted enhanced precursor chemical control laws in November 2005 and is fully engaged in multilateral and bilateral efforts to stop diversion from its chemical production sector, Chinese efforts have not matched the size of its enormous chemical industry with sufficient resources to effectively ensure against diversion.

In 2006, the State Food and Drug Administration, the Ministry of Commerce, and Customs held 1,300 training courses for 47,500 law enforcement officers on precursor chemicals. According to the National Narcotics Control Commission (NNCC) 2006 report, China established an inter-agency working group to help tighten control of precursor chemicals. According to the NNCC, various Chinese ministries and agencies began to exchange data on the production, use, and export destination of precursor chemicals.

According to the NNCC, Chinese authorities investigated 968 cases involving precursor chemicals in 2006 and seized 1461 metric tons of precursor chemicals, a significant increase over the 157 tons reported seized in 2005. Sichuan Province inspected 2638 chemical enterprises, found 42 instances of illegal activity and corrected them. It solved five cases involving the illegal purchase and sale of precursor chemicals and seized 142 tons of chemicals. In 2006 the NNCC issued 747 precursor chemical pre-export notifications involving 89,318 MT of precursor chemicals. Statistics for 2007 were not available by the time of publication.

China continues to take earnest efforts to act as a partner with the United States and other concerned countries in international chemical control initiatives targeting the precursors of greatest current concern. These are Project Cohesion tracking acetic anhydride and potassium permanganate and Project Prism targeting synthetic drug chemicals. In addition, the NNCC issues

Pre-Export Notifications for all proposed transactions in bulk ephedrine and pseudoephedrine and requires a Letter of No Objection from the importing country before authorizing shipments.

U.S. and Chinese cooperation in chemical control is good, within the limits of China's capabilities. Information is exchanged within the frameworks of Projects Cohesion and Prism and in the course of normal counternarcotics cooperation. China is the Asian representative on the Project Prism Task Force. China is also a participant in Operation Icebreaker, an effort to combat diversion of precursor chemicals for the production of crystal methamphetamine. DEA has Diversion Investigator positions in its Beijing and Hong Kong offices. In July 2006, the Office of National Drug Control Policy (ONDCP) and the NNCC signed a Memorandum of Intent on behalf of their two countries to increase cooperation in combating drug trafficking and abuse.

### India

India's large chemical industry manufactures a wide range of chemicals, including the precursor chemicals acetic anhydride, ephedrine, and pseudoephedrine, which can be diverted for illicit drug manufacture.

India is a party to the 1988 UN Drug Convention, but it does not have controls on all the chemicals listed in the Convention. The GOI controls acetic anhydride, N-acetylanthranilic acid, anthranilic acid, ephedrine, pseudoephedrine, potassium permanganate, ergotamine, 3, 4-methylenedioxyphenyl-2-propanone, 1-phenyl-2propanone, piperonal, and methyl ethyl ketone, all chemicals listed in the convention. Indian law allows the government to place other chemicals under control. Violation of any order regulating controlled substance precursors is an offense under the Narcotics Drugs and Psychotropic Substances Act, the key law controlling trafficking and is punishable with imprisonment of up to ten years. Intentional diversion of any substance, whether controlled or not, to illicit drug manufacture is also punishable under the Act.

The Indian Government in partnership with the Indian Chemical Manufacturing Association imposes controls on acetic anhydride, a key heroin chemical. Chemical manufacturers visit customers to verify the legitimacy of their requirements, and shipments are secured with specially fabricated sealing systems to prevent diversion. Domestic and export sales of acetic anhydride require a letter of no objection from the government.

Indian authorities cooperate with U.S. authorities on letters of no objection and verification of end-users, especially with regard to ephedrine and pseudoephedrine. Information is shared between Indian and U.S. authorities and India is a participant in Project Cohesion and Project Prism. DEA has a Diversion Investigator assigned to its New Delhi office.

A joint investigation by the DEA and India's Narcotics Control Bureau (NCB) in 2005 led to the dismantling of a major international pharmaceutical drug organization that was distributing controlled pharmaceuticals such as bulk ephedrine (a controlled precursor chemical) and ketamine (a Schedule III non-narcotic controlled substance in the U.S.) internationally through the Internet. The international drug trafficking ring, responsible for this criminal activity consisted of over 20 individuals in the U.S. and India, and may have had as many as 80,000 retail customers. The 108 kg of Indian ketamine seized in the U.S. was valued at \$1.62 million. The total amount of U.S. money and property seized in this investigation was \$2 million dollars in India and \$6 million in the United States. In another joint investigation, DEA and NCB cooperated to take down another Internet pharmacy, resulting in the arrest of seven individuals in the United States and five in India.

Subsequent joint investigations have shown the continuing use of the Internet and commercial courier services to distribute drugs and pharmaceuticals of all kinds from India to the U.S. and other countries. Although ephedrine seizures within India were down in 2007, one seizure in the

U.S. in September 2007 found 523 kg of ephedrine shipped through commercial carrier from India through the U.S. and headed to Mexico. The shipment was disguised as green tea extract.

India is also increasingly emerging as a manufacturer and supplier of licit opiate/psychotropic pharmaceuticals (LOPPS), both organic and synthetic, to the Middle East, Pakistan, Bangladesh and Afghanistan. Some of the LOPPS are licitly manufactured and then diverted, often in bulk. Some of the LOPPS are illicitly manufactured as well. Indian-origin LOPPS and other controlled pharmaceutical substances are increasingly being shipped to the United States. DHS Customs and Border Protection are intercepting thousands of illegal “personal use” shipments in the mail system in the United States each year. These “personal use” quantity shipments are usually too small to garner much interest by themselves, and most appear to be the result of illegal Internet sales.

### **Singapore**

Singapore is a major importer of ephedrine, a precursor for methamphetamine. The quantities not re-exported are used primarily by the domestic pharmaceutical industry. To date, no domestic clandestine methamphetamine production has been detected in Singapore. Singapore’s position as one of the world’s largest importers of ephedrine and pseudoephedrine parallels the rapid growth of pharmaceutical and biomedical industries in the country. On a combined basis, the pharmaceutical industry currently accounts for nearly 8 percent of Singapore’s GDP, up from less than one percent in 2000. Singapore is also one of the largest distributors of acetic anhydride in Asia. Used in film processing and the manufacture of plastics, pharmaceuticals, and industrial chemicals, acetic anhydride is also the primary acetylating agent for heroin.

Singapore participates in multilateral precursor chemical control programs, including Projects Cohesion and Prism, and is involved in law enforcement initiatives developed under these projects to halt worldwide diversion of precursors to illicit chemical trafficking and drug manufacturing organizations. The Singapore Central Narcotics Bureau (CNB) works closely with DEA to track the import of precursor chemicals for legitimate processing and use in Singapore. CNB’s precursor unit monitors and investigates any suspected domestic diversion of precursors for illicit use.

Singapore is a party to the 1988 UN Drug Convention and controls precursor chemicals, including pseudoephedrine and ephedrine, in accordance with its provisions. Singapore will not authorize imports of precursors until it has issued a “No Objection” letter in response to the exporting country’s pre-export notification. Pre-export notifications are issued on all exports; transshipment cases are treated as an import followed by an export. The Government of Singapore conducts rigorous site visits on companies dealing with controlled chemicals to ensure awareness of the requirements and overall compliance.

### **South Korea**

With one of the most developed commercial infrastructures in the region, South Korea is an attractive location for criminals to obtain precursor chemicals. South Korea produces and exports precursor chemicals such as acetone, toluene, and sulfuric acid. Transshipment through South Korea’s ports remains a serious problem, and its authorities recognize the country’s vulnerability as a transshipment nexus and have undertaken greater efforts to educate shipping companies of the risk. South Korea cooperates with international efforts to monitor and investigate transshipment cases. In the previous year, South Korean authorities and the DEA Seoul Country Office completed a modified controlled delivery of crystal methamphetamine originally intended for transshipment through South Korea from China to Guam, resulting in the dismantling of an international methamphetamine organization. Redoubled efforts by the Korean Customs Service also have resulted in increased seizures of methamphetamine (most of which is smuggled into South Korea from China).

In 2007, South Korean authorities discovered a mobile clandestine lab that had been used to produce small amounts of methamphetamine from legally-obtained cold medicines. In response, the South Korean government implemented stricter controls on the purchase of over-the-counter medicines containing ephedrine and pseudoephedrine, requiring customer registration for quantities greater than a standard three-day dose. Also in 2007, the Korean Food and Drug Administration (KFDA) continued to implement stronger precursor chemical controls under amended legislation approved in 2005. The KFDA continued its efforts to educate companies and train its regulatory investigators on the enhanced regulations and procedures for monitoring the precursor chemical program. The KFDA also implemented in 2007 new regulatory oversight procedures to track and address diversion of narcotics and psychotropic substances from medical facilities.

### Taiwan

Taiwan has a globally competitive chemical industry, exporting specialty industrial chemicals and resins for plastics production as well as importing solvents and cleaning materials for the high-tech electronics sector. On an international level, Taiwan has experienced problems resulting from chemical diversion and illicit drug trafficking, but has taken measures to prevent and monitor chemical diversion. The Ministry of Justice Investigation Bureau and Taiwan Customs are progressing in discussions with DEA regarding a precursor chemical initiative. Although Taiwan is not a member of the United Nations and therefore cannot be a party to the 1988 UN Drug Convention, Taiwan authorities have taken measures to comply with the convention. Of the twenty-two (22) chemical precursors listed in the 1992 additions to the UN Anti-Drug Convention, five (5) chemicals to include ephedrine and pseudoephedrine fall under the scope of the Executive Yuan's (EY) Department of Health. The other seventeen (17) precursor chemicals including acetic anhydride and potassium permanganate are considered industrial raw materials, and are controlled by the Ministry of Economic Affairs (MOEA), Industrial Development Bureau. The MOEA provides specific guidance for reporting precursor chemicals as industrial raw materials for the prevention of diversion into drug manufacturing. It also provides related manufacturers and businesses with information concerning which items to report and procedures for reporting. Although Taiwan's Department of Health regulates ephedrine and pseudoephedrine, pharmaceuticals containing these chemicals are not controlled.

### Thailand

Thailand's chemical control policy is established in the "Emergency Decree on Controlling the use of Volatile Substances B.E. 2533 (1990)." Government agencies responsible for chemical controls are the Thai Office of Narcotics Control Board (ONCB) and the Food and Drug Administration, which closely monitor the importation of precursor chemicals. Regular inspections are conducted of companies that import such substances, and every chemical shipment into Thailand is subject to review and selective unloading and search. Thai law provides for a maximum three-year jail term for individuals not complying with required reporting and tracking processes. Thai authorities are vigilant and effective in monitoring imports and the licit use of precursors, but despite strong RTG efforts, limited quantities of certain chemicals—especially acetic anhydride, ephedrine and caffeine—surreptitiously transit Thailand to laboratories in Burma. Most precursor chemicals and substances that transit Thailand originate in Indonesia or Malaysia. Some of the chemicals, like acetic anhydride, are produced in Indonesia while others are brokered through Indonesian chemical houses and transported through Malaysia into Thailand and northward to Thai chemical houses in Chiang Mai or Chiang Rai. ONCB has the responsibility for detecting chemical and precursor diversion, interdicting illicit shipments and monitoring the activities of the chemical trading houses.

## *Europe*

Chemical diversion control within the European Union (EU) is regulated by EU regulations binding on all member states. The regulations are updated regularly, most recently in 2005. The EU regulations meet the chemical control provisions of the 1988 UN Drug Convention, including provisions for record keeping on transactions in controlled chemicals, a system of permits or declarations for exports and imports of regulated chemicals, and authority for governments to suspend chemical shipments. The EU regulations are directly applicable in all 27 of its Member States. Only a few aspects require further implementation through national legislation, such as law enforcement powers and sanctions.

The EU regulations govern the regulatory aspects of chemical diversion control and set up common risk management rules to counter diversion at the EU's borders. Member states are responsible for the criminal aspects, investigating and prosecuting violators of the national laws and regulations necessary for implementing the EU regulations.

The U.S.-EU Chemical Control Agreement, signed May 28, 1997, is the formal basis for U.S. cooperation with the European Commission and EU Member States in chemical control through enhanced regulatory co-operation and mutual assistance. The agreement calls for annual meetings of a Joint Chemical Working Group to review implementation of the agreement and to coordinate positions in other areas. The annual meeting has been particularly useful in coordinating national or joint initiatives such as resolutions at the annual UN Commission on Narcotic Drugs.

Bilateral chemical control cooperation is also good between the U.S. and EU member states, and many are participating in and actively supporting voluntary initiatives such as Project Cohesion and Project Prism. In 2007, The EU established guidelines for private sector operators involved in trading in precursor chemicals, with a view to offering practical guidance on the implementation of the main provisions of EU legislation on precursor chemicals, in particular the prevention of illegal diversion.

Germany and the Netherlands, with large chemical manufacturing or trading sectors and significant trade with drug-producing areas, are considered the major European source countries and points of departure for exported precursor chemicals. Other European countries have important chemical industries, but the level of chemical trade with drug-producing areas is not as large and broad-scale as these countries.

### **Germany**

Germany is one of the large manufacturers and exporters of pseudoephedrine and ephedrine from its large licit pharmaceutical industry. Germany is a party to the 1988 United Nations Convention against Illicit Traffic in Narcotics Drugs and Psychotropic Substances and implements its chemicals control provisions. Furthermore, Germany's chemical control laws are based on EU law and the federal Precursor Control Act. Germany has a strong chemical control program that monitors the chemical industry as well as chemical imports and exports. Cooperation between chemical control officials and the chemical industry is a key element in Germany's chemical control strategy. The Federal Office of Criminal Investigation (BKA) and the Federal Office of Customs Investigation (ZKA) have a very active Joint Precursor Control Center (GUS), based in Wiesbaden, devoted exclusively to chemical diversion investigations. Germany is one of the United States' closest chemical control partners, cooperating both bilaterally and multilaterally, to promote transnational chemical control initiatives. A senior DEA diversion investigator from DEA's Frankfurt office is assigned to the GUS. Germany strongly supports the international initiatives, Project Cohesion and Project Prism, to global efforts to control the diversion of chemicals.

## The Netherlands

The Netherlands has a large chemical industrial sector that makes it an attractive location for criminals to attempt to obtain chemicals for illicit drug manufacture. There are large chemical storage facilities and Rotterdam is a major chemical shipping port. Currently, there are no indications that the Netherlands is a significant source for methamphetamine chemicals.

The Netherlands is a party to the 1988 UN Drug Convention and 1990 European Union Regulations. Trade in precursor chemicals is governed by the 1995 Act to Prevent Abuse of Chemical Substances (WVMC). The law seeks to prevent the diversion of legal chemicals into the illegal sector. Violations of the law can lead to prison sentences (maximum of six years), fines (up to 50,000 Euros), or asset seizures. The Fiscal and Economic Information and Investigation Service (FIOD-ECD) oversees implementation of the law.

The country remains an important producer of MDMA (Ecstasy), although the amount of this drug reaching the United States seems to have declined substantially in recent years. The Dutch Government has been proactive in meeting this threat. The successful five-year strategy (2002-2006) against the production, trade and consumption of synthetic drugs was endorsed by Parliament in 2007. According to the National Police, the number of Ecstasy tablets seized in the U.S. that could be linked to the Netherlands dropped significantly from 850,000 in 2005 to only 5,390 tablets in 2006. The National Crime Squad's synthetic drug unit and the Public Prosecutor's Office have strengthened cooperation with countries playing an important role in precursor chemicals used in the manufacture of MDMA. Many of the important Ecstasy precursor chemicals originate in China, and the Netherlands signed a Memorandum of Understanding with China concerning chemical precursor investigations in 2004. In 2005, the Dutch assigned a liaison officer to Beijing to promote closer sharing of intelligence on precursor chemical investigations.

The Dutch continue to work closely with the U.S. on precursor chemical controls and investigations. This cooperation includes formal and informal agreements on the exchange of intelligence. The Netherlands helped to establish and is an active participant in the INCB's Project Prism task force, and takes part in other multilateral chemical control initiatives such as Project Cohesion. In May 2007, the Netherlands National Police also joined the DEA's International Drug Enforcement Conference (IDEC) as a full member, and are expected to participate in all IDEC conferences in the future. The Netherlands also hosted the Synthetic Drug Enforcement Conference (SYNDEC III) in November 2007.

## The United Kingdom

The United Kingdom is one of world's largest importers of ephedrine and pseudoephedrine, the key precursors for methamphetamine production. The UK strictly enforces national precursor chemical legislation in compliance with EU regulations. Several small clandestine methamphetamine laboratories have been seized in the UK with law enforcement starting to embrace awareness training and strategic planning. The DEA's London Country Office (LCO) continues to maintain a robust exchange of information and training initiatives with several UK law enforcement agencies regarding the threat from methamphetamine. Although not viewed to be in any significant use in the UK at this time, UK law enforcement has acknowledged the potential threat that methamphetamine and its capacity for "domestic production" pose.

The LCO has arranged for DEA "clandestine laboratories" training for the Serious Organized Crime Agency (SOCA) and the Metropolitan Police Services (MPS/New Scotland Yard). This training program instructs law enforcement officers in the safe and efficient manner of identifying, dismantling, and prosecuting criminals involved with an illicit methamphetamine laboratory.

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# Significant Drug Manufacturing Countries

## *Asia*

### **Afghanistan**

Afghanistan produces 93 percent of the world's opium. An increasingly large portion of the opium crop is being processed into heroin and morphine base by drug labs in Afghanistan. With no domestic chemical industry, the chemicals required for heroin processing must come from abroad. The principal sources are believed to be China, Europe, the Central Asian states and India, but traffickers skillfully hide the sources of their chemicals by re-packaging and false labeling. There are no legitimate requirements in Afghanistan for most of the chemicals used in heroin manufacture, and most are smuggled in through the Central Asian states, the Persian Gulf, including Iran, Syria and Pakistan, after being diverted elsewhere.

Afghanistan is a party to the 1988 UN Drug Convention. However, it lacks the administrative and regulatory infrastructure to comply with the Convention's record keeping and other requirements.

The same factors that adversely impact the interdiction of narcotics, the investigation of major trafficking organizations and the enforcement of the poppy ban hinder efforts to interdict precursor chemicals and processing equipment.

### **Burma**

Burma's overall decline in poppy cultivation since 1998 has been accompanied by a sharp increase in the production and export of synthetic drugs, turning the Golden Triangle into a new "Ice Triangle." Burma is a significant player in the manufacture and regional trafficking of amphetamine-type stimulants (ATS). Drug gangs based in the Burma-China and Burma-Thailand border areas, many of whose members are ethnic Chinese, produce several hundred million methamphetamine tablets annually for markets in Thailand, China, and India, as well as for onward distribution beyond the region. There also are indications that groups in Burma have increased the production and trafficking of crystal methamphetamine, or "ice."

Burma does not have a significant chemical industry and does not manufacture ephedrine and pseudoephedrine used in synthetic drug manufacture, or acetic anhydride used in the remaining heroin manufacture. Most of the chemicals required for illicit drug manufacture are imported and diverted or smuggled into Burma from China, Thailand and India.

Burma is a party to the 1988 UN Drug Convention, but it does not have laws and regulations to meet all its chemical control provisions. In 1998, Burma established a Precursor Chemical Control Committee responsible for monitoring, supervising and coordinating the sale, use, manufacture, and transportation of imported chemicals. In 2002, the Committee identified 25 substances as precursor chemicals, including two not in the 1988 UN Drug Convention (caffeine and thionyl chloride) and prohibited their import, sale or use in Burma.

According to its own figures, the Government of Burma (GOB) seized 1.5 million methamphetamine tablets in 2007, compared to 19.5 million seized in 2006. The GOB must take effective new steps to address the explosion of ATS that has flooded the region by gaining closer support and cooperation from ethnic groups, especially the Wa, in whose territory the manufacture

and distribution of ATS takes place. The GOB must also close production labs and prevent the illicit import of precursor chemicals needed to produce synthetic drugs.

## Indonesia

Since 2002, Indonesia has seen a significant increase in the number of large-scale clandestine MDMA and methamphetamine laboratories seized by Indonesian authorities. MDMA (Ecstasy) and methamphetamine-producing drug syndicates have been exploiting Indonesia's lax precursor chemical controls and using corrupt means to operate with relative impunity, but Indonesian authorities are demonstrating additional commitment to increasing law enforcement pressure. Clandestine laboratories that have been discovered in Indonesia are capable of producing multi-hundred kilogram quantities of illegal synthetic drugs. In addition, regional drug syndicates are exploiting Indonesia's 1.2 million miles of coastline and the overall lack of border and port security for the smuggling of ATS and precursor chemicals.

Methamphetamine is now the second most widely abused drug in Indonesia. Most seizures are in crystalline form. The syndicates producing this supply utilize precursor chemical sources and laboratory equipment from China, and rely upon chemists trained in the Netherlands for the production of MDMA. In some cases they also have used chemists from Taiwan and Hong Kong for the production of crystal methamphetamine.

The diversion and unregulated importation of precursor chemicals remains a significant problem facing Indonesia's counternarcotics efforts. Numerous pharmaceutical and chemical corporations have large operations throughout Indonesia. In June 2006, the Indonesian National Police in cooperation with the Australian Federal Police (AFP) identified more than 380 kilograms of pseudoephedrine that had been diverted to Indonesia by a trafficking syndicate based in Jakarta and Sidney.

## Laos

As party to the 1988 UN Convention, Laos is obliged to establish controls on the 23 precursor and essential chemicals identified under Article 12 of that Convention. In practice, Laos' laws to implement this obligation are weak, and the institutional capability of its government to implement those laws is highly limited. Responsibility for regulating precursor and essential chemicals lies with the Food and Drug Administration of the Ministry of Public Health. In January 2005, that agency issued a decree imposing legal controls on 35 chemicals, including all of those, which the 1988 UN Convention requires be subject to regulation. The Health Ministry also is responsible to issue licenses for the legal importation of very limited quantities of pseudoephedrine or ephedrine, which are used (by government-owned pharmaceutical plants) for preparation of cold medications, which are available for sale in pharmacies without prescription. (The Ministry is currently considering, but has not yet approved, one application for importation of 25 kilograms of pseudoephedrine by a Laotian Government-owned pharmaceutical plant.) Initially, officials of the Food and Drug office were assigned at major international entry points to Laos, but due to shortage of personnel and conflicting requirements, the Health Ministry withdrew these staff members and now conducts inspections of imported chemicals only upon request to visit an importer's warehouse or storage facility. The Ministry is not known to conduct any end-use inspection of any licensed imports or uses.

There are no other known significant licit imports of precursor chemicals, and no known domestic manufacturing capacity for them in Laos. Responsibility for enforcement of laws that prohibit the unlicensed importation, sale or use of controlled chemicals rests formally with the Lao Customs Service and the national police. As a practical matter, there appears to be relatively little communication between these law enforcement agencies and the Health Ministry office responsible

for regulation. There have been occasional seizures in Laos of controlled chemicals, most frequently ephedrine or pseudoephedrine, but also less frequently of heroin processing chemicals. For the most part, such seized chemicals have been thought to be in transit between China and Burma or Thailand. Laos, along with Burma, Cambodia, China, Thailand and Vietnam, has for several years participated in a regional project and action plan sponsored by the UNODC Regional Office for Asia and the Pacific, one of whose goals is to enhance the effectiveness of controls on precursor and essential chemicals. Most activities under this project have concentrated on training for law enforcement, border and regulatory officials in the recognition and management of controlled chemicals, and on providing UNODC with advice and assistance to improve participating nations' chemical control laws.

## **Malaysia**

Although Malaysia is not a significant source country or transit point for U.S.-bound illegal drugs, it is increasingly being used as a regional hub for crystal methamphetamine and MDMA (Ecstasy) production. Historically, most of these synthetic drugs were imported from neighboring states in Southeast Asia and either transited Malaysia bound for other markets such as Thailand, Singapore, China and Australia, or increasingly consumed domestically as local consumption rises. In recent years, however, domestic ATS production has shown a marked increase. Malaysian authorities raided three clandestine drug labs in 2007 and had several successful drug seizures confiscating large quantities of methamphetamines and MDMA/Ecstasy. Evidence from these labs indicates the precursor chemicals were not produced domestically and that the ATS production syndicates imported the principal precursors under the auspices of legitimate pharmaceutical manufacturing. Malaysian officials report that there are no licensed manufacturers of pseudoephedrine or ephedrine in Malaysia.

## **The Philippines**

The Philippines continues to be a producer, consumer and transshipment point for methamphetamine and lesser amounts of MDMA/Ecstasy and ketamine. Most of the precursor chemicals for methamphetamine production are smuggled into the Philippines (or illegally diverted after legal importation) from China, including Hong Kong. Ephedrine also is smuggled from India. The Philippines is itself a significant market for synthetic drugs and a transshipment point for further export of methamphetamine to Australia, Canada, Japan, Korea, and the U.S. (including Guam and Saipan).

Philippine authorities dismantled three clandestine methamphetamine mega-laboratories and one warehouse in 2006, compared to seven smaller laboratories in 2005. A mega-lab is defined as a clandestine laboratory capable of producing 1,000 kilograms of illicit drugs, or more, in one production cycle. Methamphetamine production may be increasing in the Philippines as criminals seek to avoid stricter chemical controls and increased law enforcement pressure in nearby South East Asian countries.

The Philippines has over 36,200 kilometers of coastlines and 7,000 islands. Vast stretches of the Philippine coast are virtually un-patrolled and sparsely inhabited. Traffickers use shipping containers, fishing boats, and cargo ships (which off-load to smaller boats) to transport multi-hundred kilogram quantities of methamphetamine and precursor chemicals. Law enforcement interdiction efforts are hamstrung by deficits in equipment, training, corruption, and intelligence sharing.

Since 1989, the Philippine government has controlled the importation of ephedrine. Despite these controls, the widespread availability of methamphetamine—known locally as “shabu”—indicates that local clandestine laboratory operators are having no apparent problem obtaining ephedrine or

other necessary precursors. Law enforcement authorities in the Philippines recognize that clandestine laboratories are extremely active, and that they present a threat to public health and national security within the Philippines. Aggressive efforts by law enforcement to seize clandestine methamphetamine labs in and around Manila may have pushed production more into the provinces. The Philippine government continues to build the capacity of the Philippine Drug Enforcement Agency (PDEA), established in 2002, and its first 55 agents graduated in early 2007 from the PDEA Academy.

In addition to methamphetamine, MDMA/Ecstasy is slowly gaining popularity among affluent members of the Philippine society, and the legal veterinary anesthetic ketamine is converted to the illicit crystal form from its legal liquid form in the Philippines and exported to other countries in the region.

## *Latin America*

### **Bolivia**

Because Bolivia does not have a large chemical industry, most of the chemicals required for illicit drug manufacture come from abroad, either smuggled from neighboring countries or imported and diverted. In 2007, Bolivian authorities seized 1,435,419 liters of liquid precursors and 653 metric tons of solid precursor chemicals. Bolivia is a party to the 1988 UN Drug Convention, and has the legal framework for implementing its chemical control provisions. Bolivia participates in chemical control initiatives such as the multilateral Operation Seis Fronteras, and DEA has a Diversion Investigator assigned to its La Paz office.

### **Colombia**

Currently, there are approximately 4,500 chemical companies in Colombia authorized to handle precursor chemicals for legitimate use. Chemical companies must have governmental permission to import or export specific chemicals and drugs. Pre-notifications to “Fondo Nacional de Estupefacientes” (National Dangerous Drug Fund, or Colombia’s FDA) are required to export chemicals from Colombia. No companies in Colombia have governmental authorization to export ephedrine or pseudoephedrine, key precursors in the production of methamphetamine. However, Colombian companies can and do import these precursors, which are necessary for the production of cold medicines and other legitimate products. The Government of Colombia (GOC) controls the legal importation levels to correspond to legitimate national demand.

Controlled chemicals are camouflaged and clandestinely imported into Colombia with false or misleading information. In many instances, the alleged importing “company” does not exist, is out of business, or has no actual involvement in importing the products. Many chemicals also are being diverted by a small number of corrupt employees at large Colombian chemical companies, whose management has no knowledge of the illegal activities. Highly desired chemicals, such as potassium permanganate, are imported into Colombia by taking advantage of the CNP and Colombian Customs lack of knowledge regarding scientific synonyms for controlled chemicals.

Chemical traffickers and clandestine laboratories also use non-controlled chemicals, such as N-propyl acetate, to replace controlled chemicals that are difficult to obtain. Since there are no restrictions on non-controlled chemicals, these are diverted with impunity, and appear in large quantities at clandestine labs. Chemical traffickers also recycle chemicals in order to decrease their need to constantly divert precursor chemicals. Along with this practice, traffickers are recycling the chemical containers, making tracing of origin difficult.

The seizure and interdiction of precursor chemicals used to produce cocaine and heroin have been steadily on the rise. In 2007, the GOC seized over 3,000 gallons and 93 metric tons of potassium permanganate in Medellin, 122,000 gallons of sulfuric acid, and 126,000 gallons of hydrochloric acid.

### **Peru**

Peru produces some precursor chemicals such as sulfuric acid and calcium oxide that are used for the processing of coca leaf into cocaine base. Peru is also a major importer of other precursor chemicals that are used in cocaine production, such as acetone and potassium permanganate. Many tons of these chemicals are diverted from legitimate channels to clandestine cocaine-production laboratories. In 2006, the Peruvian National Police (PNP) Chemical Investigations Unit (DICIQ) initiated Operation Chemical Choke that focused on chemical regulatory audits, interdiction efforts, and liaison with industry and regulatory agencies. Its objective was to stop the illicit diversion of acetone, sulfuric acid, and hydrochloric acid. By mid-November 2007, the operation had resulted in the seizure of approximately 350 metric tons of precursor chemicals destined for cocaine-production laboratories.

In June 2007, the Peruvian legislature modified the penal code to impose stiffer penalties—10 years instead of 5—and strengthened procedures to ensure proper handling of controlled chemicals. It also revised the code so that conspiracy laws now include trafficking-in-chemicals. The law modified the regulations regarding how precursor chemicals are distributed and sold in order to further define the crime of diverting chemicals for the production of illegal drugs. The PNP proactively cooperated with neighboring countries and the U.S. to conduct regional chemical control operations, including Operation Seis Fronteras with Argentina, Bolivia, Brazil, Chile, Ecuador, Panama, Uruguay and Venezuela. PNP/DICIQ recorded seizures of approximately 125 metric tons of precursor chemicals. Also, the Peruvian government's 2008 budget includes, for the first time, funds to be used by different ministries to specifically stop the diversion of precursor chemicals.

## **Methamphetamine Chemicals**

The battle against methamphetamine must include a global campaign to prevent the diversion of precursor chemicals by all producing and transit nations. Though a daunting challenge, international cooperation has shown promising results. Two international entities have played a crucial role in this global effort: the United Nations (UN) Commission on Narcotic Drugs (CND) and the International Narcotics Control Board (INCB). The CND is the central policy-making body within the United Nations system dealing with drug-related matters. The INCB is an independent, quasi-judicial body that monitors the implementation of the three United Nations international drug control conventions.

Building on the passage of a U.S.-sponsored 2006 CND resolution that requested governments to provide an annual estimate of licit precursor requirements and to track the export and import of such precursors, the United States in 2007 supported a resolution drafted by the European Union that strengthened controls on pseudoephedrine derivatives and other precursor alternatives. The INCB Secretariat's program to monitor licit shipments of precursor chemicals through its Pre-Export Notification (PEN) online system was further strengthened by the availability of national licit estimates. The INCB is using these estimates to evaluate whether a chemical shipment appears to exceed legitimate commercial needs. Armed with this data, the INCB can work with the relevant countries to block shipments of chemicals before they are diverted to methamphetamine production.

## **Combat Methamphetamine Epidemic Act (CMEA) Reporting**

Section 722 of the CMEA amends Section 489(a) of the Foreign Assistance Act of 1961 (22 USC Section 2291h) by requiring the following information to be included in the annual International Narcotics Control Strategy Report (INCSR):

- The identification of the five countries that exported the largest amounts of pseudoephedrine, ephedrine and phenylpropanolamine (including the salts, optical isomers, or salts of optical isomers of such chemicals, and also including any products or substances containing such chemicals) during the preceding calendar year.
- An identification of the five countries that imported the largest amounts of these chemicals during the preceding calendar year and that have the highest rate of diversion for use in the illicit production of methamphetamine (either in that country or in another country). The identification is to be based on a comparison of legitimate demand for the chemicals as compared to the actual or estimated amount imported into the country. It also should be based on the best available data and other information regarding the production of methamphetamine in the countries identified and the diversion of the chemicals for use in the production of methamphetamine.
- An economic analysis of the total worldwide production of pseudoephedrine, ephedrine, and phenylpropanolamine as compared to legitimate worldwide demand for the chemicals.

In addition, Section 722 of the CMEA amends Section 490 (a) of the Foreign Assistance Act of 1961 to require that the countries identified as the largest exporters and importers of these chemicals be certified by the President as fully cooperating with U.S law enforcement or meeting their responsibilities under international drug control treaties.

The Department of State, in consultation with the Department of Justice, is required to submit to Congress a comprehensive plan to address the chemical diversion within 180 days in the case of countries that are not certified.

Section 723 of the CMEA requires the Secretary of State, acting through the Assistant Secretary of the Bureau of International Narcotics and Law Enforcement, to take such actions as are necessary to prevent the smuggling of methamphetamine into the United States from Mexico. Section 723 requires annual reports to Congress on its implementation.

# Major Exporters and Importers of Pseudoephedrine and Ephedrine

## (Section 722, CMEA)

This section of the INCSR is in response to the Section 722 requirement for reporting on the five major importing and exporting countries of the identified chemicals. In meeting these requirements, the Department of State and DEA considered the chemicals involved and the available data on their export, import, worldwide production, and the known legitimate demand for them.

Ephedrine and particularly pseudoephedrine are the much-preferred chemicals for methamphetamine production. Phenylpropanolamine, a third chemical listed in the CMEA, is not a methamphetamine precursor, although it can be used as an amphetamine precursor. In 2000, the FDA issued warnings concerning significant health risks associated with phenylpropanolamine, and as a result, manufacturers voluntarily removed the chemical from their over-the-counter medicines. A limited amount is imported for veterinary medicines, but there is little data available on its production and trade. Since phenylpropanolamine is not a methamphetamine precursor chemical, and in the absence of useful trade and production data, this section provides information only on pseudoephedrine and ephedrine.

The Global Trade Atlas (GTA), compiled by Global Trade Information Services, Inc. ([www.gtis.com](http://www.gtis.com)), provides very complete export and import data on pseudoephedrine and ephedrine collected from major trading countries; however, the most recent full-year data is from 2006. GTA data have been used in the following tables. Data on legitimate demand is more complete for 2006 than in any previous year, but it is still not fully sufficient to enable accurate estimates of diversion percentages based on import data. This is principally due to the fact that there are still countries which have yet to report their legitimate domestic demand to the INCB. Also, some countries and regions do not report trade in ephedrine and pseudoephedrine when it is incorporated into a finished pharmaceutical product, such as a tablet or gel cap, due to concerns that this type of information infringes on commercially sensitive information. Also, governments may not be able to ascertain this data if, for example, they do not subject pharmaceutical preparations to national control, or if a different ministry with different or less stringent means of oversight regulates preparations versus bulk chemicals. This omits the end products that form a very large share of legitimate worldwide demand for methamphetamine precursors.

Even in the case of the reporting on licit market requirements for ephedrine and pseudoephedrine, the governing UN resolutions are not mandatory, but rather urge countries to cooperate by making available information on domestic demand and trade in pharmaceutical products. The trend in this direction has been positive; since the passage of the 2006 CND resolution that the U.S. spearheaded, over 100 countries and jurisdictions have reported import requirements for the bulk chemicals, ephedrine and pseudoephedrine to the INCB. Before 2006, only a nominal number of countries did so, and these rare communications were scattered and not provided on any systematic basis.

While not all economic analyses required by CMEA are possible to prepare because of insufficient data, more data is available this year than in any previous year. The United States also will continue to push in both diplomatic and operational forums – in both bilateral and multilateral settings – to urge countries to provide reporting on their licit domestic requirements for methamphetamine precursor chemicals to the INCB and work with the INCB and with authorities

in the reporting countries themselves to secure explanations for any anomalies between reported imports and reported licit domestic requirements. We also will seek to support efforts to provide developing countries with the expertise and technical capacities necessary to develop such commercial estimates, as this requires a regulatory infrastructure that is currently beyond the means of some governments in question.

This report provides export and import figures for both 2005 and 2006 in ephedrine and pseudoephedrine to illustrate the wide annual shifts that can occur in some countries, reflecting such commercial factors as demand, pricing, and inventory buildup. GTA data on U.S. exports and imports have been included to indicate the importance of the United States in international pseudoephedrine and ephedrine trading. Complete data on the worldwide production of pseudoephedrine and ephedrine are not available, because the major producers will not release them publicly for commercial, proprietary reasons.

The following data are for 2005 and 2006 and provide an indication of the volatility of the trade in pseudoephedrine and ephedrine. We are using the 2006 data this cycle of review to identify the major participants in the trade in ephedrine and pseudoephedrine.

#### **Exporters (KGs)**

<b>Pseudoephedrine</b>	<b>2006</b>
India	301,068
Germany	229,700
China	50,279
Taiwan	45,830
Switzerland	41,519
<b>Sub-Total</b>	<b>668,396</b>
United States	36,715
All Others	17,224
<b>Total</b>	<b>722,335</b>

<b>Ephedrine</b>	<b>2006</b>
India	185,804
Germany	33,200
Singapore	14,550
United Kingdom	7,300
China	6,152
<b>Sub-Total</b>	<b>247,006</b>
United States	596
All Others	8,132
<b>Total</b>	<b>255,734</b>

**Analysis of Export Data:** The largest exporters of ephedrine in 2006—India, Germany, Singapore, the United Kingdom and China—remained unchanged from 2005, though the aggregate amount of ephedrine exported by these countries declined significantly (16.9 percent). This decrease was not offset by corresponding increases in smaller producers; the worldwide aggregate volume of ephedrine exports that was reported to the Global Trade Atlas declined by 14 percent.

The only countries or territories that reported noticeable increases in ephedrine exports were Taiwan (up to 2,218 kilos from 20 kilos in 2005) and Canada (1,400 kilos from zero in 2005). Exports of ephedrine from the United States in 2006 declined dramatically from 2005 (596 kilos, down from 5,542).

For pseudoephedrine, the aggregate volume of worldwide exports showed a similar decline from the previous year, by 18.7 percent. As had been the case in 2005, the five most prolific exporters of pseudoephedrine remained India, Germany, China, Taiwan and Switzerland. Germany's exports decreased by some 41 percent in 2006, and fell behind India as the single greatest exporter of pseudoephedrine. Among countries that exported smaller volumes, only Italy and Spain showed statistically significant increases in 2006 (1,200 and 1,100 kilos, respectively, up from zero and 100 kilos in 2005). Belgium's exports dropped from 4,800 kilos in 2005 to 900.

### **Importers (KGs)**

<b>Pseudoephedrine</b>	<b>2006</b>
United Kingdom	140,600
Singapore	45,400
Thailand	43,955
Mexico	43,428
Switzerland	38,891
<b>Sub-Total</b>	<b>312,274</b>
United States	171,195
All Others	306,380
<b>Total</b>	<b>789,849</b>

<b>Ephedrine</b>	<b>2006</b>
South Korea	17,150
Indonesia	15,407
Singapore	12,750
United Kingdom	9,200
France	7,200
<b>Sub-Total</b>	<b>61,707</b>
United States	89,624
All Others	35,394
<b>Totals</b>	<b>186,725</b>

**Analysis of Import Data:** South Korea, Switzerland and Singapore are important trading countries that (along with the United Kingdom and France) have pharmaceutical industries that utilize ephedrine and pseudoephedrine.

Among the top five importers of pseudoephedrine, Mexico's declining volume was dramatic in 2006—43,428 kilos down from 118,552. As noted previously in this report, Mexico stopped issuing licenses for imports of ephedrine, pseudoephedrine, and products containing these chemicals in September 2007. In fact, as with exports of both chemicals, the overall volume of imports declined significantly in 2006 from 2005; pseudoephedrine imports declined by over 34 percent, and ephedrine by nearly 40 percent. This declining volume could possibly be in response

to international efforts to promote closer alignment between ephedrine and pseudoephedrine sales and legitimate commercial requirements. Alternatively, this could be a single-year anomaly due purely to vagaries of the commercial market. Additional annual reporting will be required to determine whether this data points to a genuine downward trend in sales or represents a temporary statistical variance.

The accuracy of this trade data also should be viewed with some caution; clearly, some countries have less sophisticated infrastructures and methodologies at their disposal than others for measuring the volume and commodities of legitimate trade. Furthermore, although this data can be useful for determining overall trends in legitimate trade, it cannot accurately identify trends in smuggling or diversion involving conscious subterfuge. Particularly in the case of Mexico, where the government has aggressively cracked down on precursor chemical diversion and limited the flow of trade in such chemicals, we expect to see increased smuggling of chemical precursors through Central American countries and across Mexico's southern border.

Trade data also fails to reflect illicit smuggling that has been detected by law enforcement and other official reporting in Africa, the Middle East and other parts of Asia. The INCB-led Operation Crystal Flow, for example, discussed previously in this chapter, facilitated seizures of ephedrine and pseudoephedrine across Sub-Saharan Africa that could not be accounted for based on officially available trade statistics. The Democratic Republic of the Congo, for example, has been identified by U.S. and international law enforcement authorities as a significant transshipment hub for precursor chemicals, but available trade data is silent on legitimate commercial sales of these commodities. Similarly, in Burma, there is no available trade data to account for the massive scale of methamphetamine production occurring within that country.

Other sources of information from the United States, the United Nations and other governments have indicated that considerable quantities of chemicals are being smuggled across Middle Eastern and Southeast Asian borders without any corresponding record in official trade data. Iran and Syria, for example, have reported licit national requirements for pseudoephedrine (40 metric tons and 50 metric tons, respectively) that would place them among the top five importers worldwide, but no trade data for pseudoephedrine is available for either country that could be used to verify whether these volunteered estimates are accurate.

Based on what data is available, it may be possible to speculate that the trade in ephedrine and pseudoephedrine appears to be diversifying, and is less concentrated along traditional routes in major trading countries. The estimates that are now being provided to the INCB regarding legitimate national requirements can provide a useful reality-check to governments to get a better handle on imports and exports, and we will continue to watch these trends carefully. The United States will work closely with the INCB and with its international partners to further refine the methodologies used to determine these estimates and urge for additional voluntary reporting from states. Many countries, including the United States, have faced challenges in preparing these estimates. All nations, especially large importers and exporters such as the United States, should take steps to ensure that these estimates are as accurate and useful as possible.

**Table: Annual Legitimate Requirements Reported by Governments to the International Narcotics Control Boards (source: INCB)**

(status: 18 December 2007)

Country / Territory	Ephedrine kg	Ephedrine preparations kg	Pseudoephedrine kg	Pseudoephedrine preparations kg	3,4-MDP-2-P <sup>a</sup> kg	P-2-P <sup>b</sup> kg
Afghanistan						
Albania	5					
Algeria			17 000			
Argentina	18 500		19 000			1
Australia	30		6 000		1	77 000
Azerbaijan	20		10			
Bangladesh	850		15 305			
Barbados	250		160			
Belarus		60	25			1
Belgium	150		21 000			200
Benin			10			
Bosnia and Herzegovina	65		58	600	50	50
Botswana	300					
Brazil	2 550		10 000			6 350
Bulgaria		1 800				
Cambodia	300		400			
Canada	5 000	1	20 000			
Chile	615		5 333			
China	140 000		110 000			
Colombia	400		30 000			
<i>Cook Islands</i>		1		1		
Costa Rica	25		1450			
Côte d'Ivoire	75					
Croatia	100		400			
Cyprus			100			
Czech Republic	20	62	2 780			
Democratic People's Republic of Korea	2 500					
Democratic Republic of the Congo	155		500			
Dominican Republic	200	1 500				
Ecuador	320		8 000			
Egypt	6 000		30 000			
El Salvador	150		1 000	1		
Estonia	6					
<i>Falkland Islands (Malvinas)</i>	1		1			
Finland	100			1 000		5
Georgia	3	2				
Germany	4 000		20 000		1	3 000
Ghana	2 000		700			
Greece	100		600			
Guinea	36					
Guyana	80		85			
Haiti	250		600			
<i>Hong Kong, SAR of China</i>	2 115		1 508			
Hungary	800				350	2 600
Iceland	1					
India	477		2 634			
Indonesia	14 605		39 635			
Iran (Islamic Republic of)			40 000			
Iraq	50		1 400			
Ireland	61	1	1	732		1
Israel	43		2 130	1 905		
Italy	208		27 489			450
Jamaica	80		250			
Jordan	250		18 000			15 760
Kazakhstan	332		1			

Country / Territory	Ephedrine kg	Ephedrine preparations kg	Pseudoephedrine kg	Pseudoephedrine preparations kg	3,4-MDP-2-P <sup>a</sup> kg	P-2-P <sup>b</sup> kg
Kyrgyzstan	1 000		120			
Latvia	30		50			
Lebanon	26	1	155	650		
Lithuania		2		500		
<i>Macao, SAR of China</i>	1		1			
Madagascar	702		150			
Malawi	1 000					
Malaysia	5 700		37 000			
Malta		10		220	1	1
Mauritius	1					
Morocco	124		2 500			
Mozambique	3					
Myanmar	2					
Netherlands	2 000		2 000			
New Zealand	50		250			
Nicaragua			200			
Nigeria	3 849		5 823			
Norway	400		1			
Pakistan	15 000		10 000			
Panama	50		7 000			
Papua New Guinea			14			
Peru	34	31	6 440	8 985		
Philippines			100	102		
Poland	350		3 500			
Portugal			15			
Republic of Moldova	100		25			
Romania	150		3 100			
<i>Saint Helena</i>	1		1			
Slovakia	43			1		
Slovenia	3		300			
Solomon Islands						
South Africa	20 000		20 000			
Spain	1 227		7 010			1
Sweden	20		3		2	4
Syrian Arab Republic	1 000		50 000			
Tajikistan	38					
Thailand	21		36 900			
<i>Tristan da Cunha</i>			1			
Turkey	2 092		31 821			2 000
Uganda	120		120			
United Arab Emirates			200			
United Kingdom	378		13 741			39
United Republic of Tanzania	950		500			
Venezuela	1 000		20 000			
Yemen	150		5 000			
United States of America	3 500		379 100			31 838
Zambia	5		10			

Notes: The names of non-metropolitan territories and special administrative regions are in italics.

A blank field signifies that no requirement was indicated or data are not submitted for the substance in question.

Quantities reported below 1 kilogramme have been rounded up and are reflected as 1 kg.

