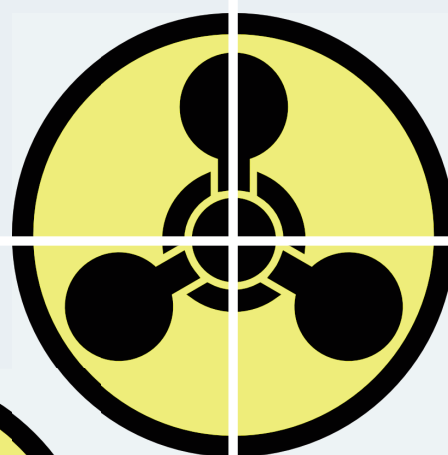


United Nations Sanctions on Iran and North Korea: An Implementation Manual

ENRICO CARISCH AND LORAINÉ RICKARD-MARTIN



Cover Image: A modified version of "WMD Symbols Variant-2 Horizontal," 2010. Creative Commons Attribution-Share Alike 3.0, Wikimedia Commons and Fastfission.

Disclaimer: The views expressed in this paper represent those of the authors and not necessarily those of IPI. IPI welcomes consideration of a wide range of perspectives in the pursuit of a well-informed debate on critical policies and issues in international affairs.

IPI Publications

Adam Lupel, *Director of Publications*

Marie O'Reilly, *Associate Editor*

Thong Nguyen, *Editorial Assistant*

Suggested Citation:

Enrico Carisch and Loraine Rickard-Martin, "United Nations Sanctions on Iran and North Korea: An Implementation Manual," New York: International Peace Institute, March 2014.

© by International Peace Institute, 2014
All Rights Reserved

www.ipinst.org

ABOUT THE AUTHORS

ENRICO CARISCH is a Partner in Compliance and Capacity Skills International, LLC, which provides advice and training on sanctions compliance and implementation to the public and private sectors and conducted UN system-wide sanctions training in 2011 and 2012. He was a member of several United Nations Panels of Experts from 2002 to 2010 and an investigative journalist for twenty-five years.

LORAINÉ RICKARD-MARTIN is a Partner in Compliance and Capacity Skills International, LLC, and a lecturer in United Nations sanctions at Columbia University's School of International and Public Affairs. She was a sanctions committee secretary and a senior political affairs officer in the Security Council Affairs Division of the UN Department of Political Affairs, from 1995 to 2009.

ACKNOWLEDGEMENTS

The authors would like to express their appreciation to peer reviewers Christine Lee, George Lopez, Peter Scott, and Christine Wing for their insightful and valuable comments; and to Diane Barkley, Aleandro Carisch, William J. Haynes, III, Bryan Knouse, Shawna Meister, Niall P. Murphy, and Lindsey G. Zeichner for their expert research and other assistance on this project.

The sanctions implementation manual is a joint project of IPI, Compliance and Capacity Skills International, and Security Council Report, funded by the government of Canada. IPI would like to thank Kristen Boon, visiting senior advisor, for her integral contributions to the project.

IPI owes a debt of thanks to its donors whose support make publications like this one possible. In particular, IPI would like to thank the government of Canada for its support of this project.

The logo for the Government of Canada, featuring the word "Canada" in a serif font with a small Canadian flag to the right.The logo for Compliance and Capacity International, LLC, featuring a stylized 'i' inside a circle followed by the text "Compliance and Capacity International, LLC".The logo for Security Council Report, featuring a stylized 'S' inside a circle followed by the text "SECURITY COUNCIL REPORT" and the tagline "Independent. Impartial. Informative." below it.

CONTENTS

Illustrations.....	iii
Abbreviations.....	v
How to Use this Manual.....	vii
Understanding Sanctions.....	1
UN SANCTIONS COMMITTEES AND AFFILIATED SUPPORT	
UN SANCTIONS GENERAL PROCESSES	
OBLIGATION TO IMPLEMENT AND COMPLY WITH UN SANCTIONS	
Weapons of Mass Destruction.....	2
COUNTERING THE PROLIFERATION OF WMD	
THE 1540 RESOLUTION	
NON-PROLIFERATION: IRAN AND THE DPRK	
United Nations WMD Sanctions.....	4
UN SANCTIONS ON THE DPRK	
UN SANCTIONS ON IRAN	
THE P5+1 JOINT PLAN OF ACTION	
DPRK and Iran Sanctions Measures Explained.....	6
CONVENTIONAL AND NON-CONVENTIONAL ARMS EMBARGO	
BUNKERING	
INSPECTION ON HIGH SEAS	
TRAVEL BANS	
ASSET FREEZES	
OTHER FINANCIAL SANCTIONS	
LUXURY GOODS EMBARGOES	

WMD Sanctions Violations 9

EFFECTIVE INTERVENTIONS AGAINST WMD
PROLIFERATION—THE CATCH-ALL PROVISION

SANCTIONS AGAINST NUCLEAR WEAPONS
PROLIFERATION

SANCTIONS AGAINST THE PROLIFERATION OF
BALLISTIC MISSILE TECHNOLOGIES

SANCTIONS AGAINST THE PROLIFERATION OF
CHEMICAL AND BIOLOGICAL WEAPONS

MARITIME PORTS, AIRPORTS, AND ACCESS
ROADS TO AND FROM THE DPRK AND IRAN

**Lessons Learned from the Implementation
of DPRK and Iran Sanctions 11**

DPRK NETWORK OF PROLIFERATORS

DPRK EVASION AND SMUGGLING STRATEGIES

DPRK’S USE OF ITS DIPLOMATS

IRAN’S PROCUREMENT NETWORKS

IRAN’S USE OF NETWORKS OF EXPATRIATES
AND FRONT COMPANIES

IRAN AS SUPPLIER OF CONVENTIONAL ARMS

IRAN’S DRIVE FOR HIGH-QUALITY WMD ITEMS

Case Histories 16

ILLEGAL TRADE OF RESTRICTED NUCLEAR ITEMS

ILLEGAL TRADE OF RESTRICTED BALLISTIC
MISSILE ITEMS

Best Practices and Recommendations 18

1. STATE IMPLEMENTATION OFFICERS
2. CUSTOMS AND BORDER CONTROL PRACTITIONERS
3. REGULATORS OF THE TRANSPORTATION SECTOR
AND COMPLIANCE OFFICERS OF THE
TRANSPORTATION INDUSTRY
4. REGULATORS OF FINANCIAL SERVICES,
COMPLIANCE OFFICERS OF BANKS, AND
FINANCIAL INTERMEDIARIES

SOURCES FOR FURTHER INFORMATION

Annexes 28

ILLUSTRATIONS

Tables

1. BALLISTIC MISSILES WITH A RANGE OF AT LEAST 300 KM AND CAPABLE OF CARRYING A PAYLOAD OF 500 KG.....	4
2. SUMMARY OF THE UN PANEL OF EXPERTS REPORT (S/2013/331) CONCERNING IRAN'S PROCUREMENT OF HIGH-QUALITY ITEMS	15
3. VESSEL CONFIGURATIONS ACCORDING TO THEIR LIKELIHOOD OF SANCTIONABLE AND CRIMINAL INVOLVEMENT	24

Abbreviations

AG	Australia Group
BWC	Biological Weapons Convention
CNC	Computer Numerically Controlled
CTBT	Comprehensive Nuclear-Test-Ban Treaty
CWC	Chemical Weapons Convention
DPRK	Democratic People's Republic of Korea (North Korea)
FATF	Financial Action Task Force
HCOC	Hague Code of Conduct Against Ballistic Missile Proliferation
IAEA	International Atomic Energy Agency
IATA	International Air Transport Association
INTERPOL	International Criminal Police Organization
IMO	International Maritime Organization
IRGC	Islamic Revolutionary Guard Corps
IRISL	Islamic Republic of Iran Shipping Lines
ISM	Safety Management Code
ISU	Implementation Support Unit for the Biological Weapons Convention
KPA	Korean People's Army
MTCR	Missile Technology Control Regime
NDC	National Defense Commission
NPT	Treaty on the Non-Proliferation of Nuclear Weapons
NSG	Nuclear Suppliers Group
OPCW	Organization for the Prohibition of Chemical Weapons
PSC	Port State Control
PTBT	Partial Test Ban Treaty
ROK	Republic of Korea (South Korea)
SIPRI	Stockholm International Peace Research Institute
SOLAS	International Convention for the Safety of Life at Sea

SRSR	Special Representative of the Secretary-General
UN	United Nations
UNGA	United Nations General Assembly
UNODA	United Nations Office for Disarmament Affairs
UN PoE	Panel of Experts
UNSC	United Nations Security Council
WA	Wassenaar Arrangement
WCO	World Customs Organization
WMD	Weapon(s) of Mass Destruction
WPK	Workers' Party of Korea

This manual is intended as a tool for officials of UN member states, international organizations, companies, and corporations to support sanctions implementation. The manual delivers to frontline actors in the public and private sectors specific guidance to enable more effective compliance with UN non-proliferation sanctions on Iran and the Democratic People's Republic of Korea (DPRK).

How to Use this Manual

This manual is intended to close the gap between the political language of the relevant sanctions resolutions and the technical nature of the lists of restricted items and technologies, by offering simple, actionable instructions for implementation. Wherever possible, texts and searchable reference data are offered in layperson's language without elaborating on the underlying regulatory and policy details.

Users of the manual should be cognizant that while the greatest care was taken to reflect the letter and spirit of the UN sanctions regimes adopted under resolutions 1718 (2006) (DPRK), and 1737 (2006) (Iran), this manual is intended to support and not to replace the original UN resolutions, presidential statements, and related documents (see Annexes I and II).

It is recommended that users first familiarize themselves with the essentials of UN sanctions as briefly noted in the first section of the manual, "Understanding Sanctions." Users will next find information that will help them to confirm whether a particular request for export/import, transportation, or transaction involving an item or component may be an attempt at illegal proliferation or sanctions violation. For this purpose, the general descriptive texts for each of the three principal proliferation technologies—nuclear weapons, chemical/biological weapons, and ballistic missiles—provide introductory information. A summary of case studies of recent proliferation efforts, including smuggling networks and techniques, is aimed at increasing vigilance among those responsible for implementing the United Nations sanctions regimes on Iran and the DPRK.

Best practices for member state officials, customs and border control agents, the shipping industry, banks, insurance agencies, and financial intermediaries further elaborate practical sanctions implementation steps. Annexed technical materials consist of concise and searchable lists for all prohibited items, equipment, and technologies for both sanctions regimes. The technical descriptions of these items are enhanced, where feasible, with information about the appearance, notable features, key parameters, special markings, as well as where applicable, photographs and graphs. These elaborations are designed to assist laypersons in ascertaining whether a particular component or item is restricted.

Understanding Sanctions

Throughout history, sanctions have been used as a political tool to coerce, constrain (or contain), and deter, most often by states instituting general blockades or limiting the trade privileges of others. The establishment of the United Nations in 1945—with its primary purpose of maintaining international peace and security—introduced under Chapter VII, Article 41, of the UN Charter, the use of “measures other than the use of force,” (e.g., sanctions). It was not until the end of the Cold War in the early 1990s, however, that the UN Security Council, the UN body directly responsible for responding to threats to international peace and security, made extensive use of its ability to impose multilateral sanctions. From 1990 to 2000, often referred to as the “sanctions decade,” the Security Council adopted thirty-nine resolutions imposing sanctions on nine countries and two groups (the National Union for the Total Independence of Angola [UNITA] and al-Qaida), in contrast to having imposed sanctions on only two countries (Southern Rhodesia and South Africa) from 1945 to 1990.¹

Many of these early sanctions regimes failed to achieve—or only partially achieved—their goals, while others resulted in disproportionate and unacceptable humanitarian costs. In the mid-1990s, the international community introduced “smart” or “targeted” sanctions, substantially eliminating humanitarian costs. Recent improvements to due process provisions for listing and delisting have served to further mitigate the unintended consequences of this vital conflict resolution tool.

Sanctions have become much more sophisticated and narrowly targeted to the leaders and elites most responsible for wars, violence, atrocities, terrorism, and proliferation of weapons of mass destruction (WMD). Currently there are fourteen active UN sanctions regimes. Almost all are centered on a conventional or non-conventional arms embargo, and they usually include an asset freeze or other financial sanctions, a travel ban, aviation sanctions, and political or diplomatic sanctions.

UN SANCTIONS COMMITTEES AND AFFILIATED SUPPORT

Under the provisions of Article 25 of the UN Charter, all member states are legally obligated to carry out Security Council decisions. As such, it is the responsibility of UN member states, and other relevant actors, to implement sanctions.

Security Council resolutions provide details of the measures imposed, related exemptions, criteria for listing, reporting deadlines, as well as the mandates of the committees established to oversee the sanctions regimes and the monitoring groups that assist them. The committee for Iran sanctions is called the 1737 Committee after the first resolution that imposed sanctions on Iran in 2006. The committee monitoring sanctions on the DPRK is referred to as the 1718 Committee. These committees report directly to the Security Council, acting as an intermediary between the council and states, organizations, and monitoring bodies, variously called Panels of Experts, or Groups of Experts (called “panels” in this manual).

Panels are mandated to assist the committees in monitoring compliance with the sanctions measures. Members of panels are chosen on the basis of their specialized knowledge in conventional or non-conventional arms, including arms trading and the tracing of military materiel. Others are experts in financial transactions, international border control and customs procedures, air and maritime transportation, pertinent regional issues, and other relevant areas of specialization, according to the nature of the particular sanctions regime. Their information-gathering activities serve to identify and report on incidents of noncompliance with sanctions—commonly called “sanctions-busting.” Being named in the report of a panel can result in wide-ranging repercussions for a person, entity, or state, including being designated for individual targeted sanctions or secondary sanctions on states.

UN SANCTIONS GENERAL PROCESSES

Committees are tasked with designating persons, groups, organizations, or businesses for the list of those subject to individual targeted sanctions. For

¹ On the Security Council in the 1990’s see David Cortright and George A. Lopez, eds., *The Sanctions Decade: Assessing UN Strategies in the 1990’s*, A Project of the International Peace Academy (Boulder, CO: Lynne Rienner, 2000).

those listed, the effect in the case of an asset freeze is that their assets are blocked as long as they remain listed (usually not seized, or confiscated), depriving the targets of the use and benefit of these economic resources. In the case of a travel ban, individuals are prohibited from traveling across international borders.

In an effort to reduce unacceptable consequences, the council provides exemptions to an asset freeze and a travel ban as stated in the relevant resolution, including for humanitarian reasons, such as basic and extraordinary expenses, and for judicial, medical, safety, and religious reasons for Iran, and for states to allow the return of their citizens. The nature of exemptions and procedures for submitting requests applicable to the 1718 and 1737 committees are detailed in Annexes I and II.

The Security Council imposes sanctions for as long as it deems necessary, thus sanctions may be renewed or refined with future resolutions. When the council decides to lift sanctions, it typically adopts a resolution for this purpose.

OBLIGATION TO IMPLEMENT AND COMPLY WITH UN SANCTIONS

In order to comply with their obligations under Article 25 of the UN Charter, states may amend or enact laws or regulatory provisions, or issue an executive decision to enable compliance with UN sanctions. The governments of member states are also required to ensure that their citizens, organizations, and businesses comply with the provisions of UN sanctions.

Since nearly every country in the world is currently a member of the United Nations, every internationally recognized sovereign state is obligated to implement and enforce UN sanctions, and by extension their nationals, groups, organizations, and businesses are obligated to comply with UN sanctions.² International organizations and civil society groups are responsible for ensuring that their activities do not contravene United Nations sanctions, which the council increasingly recognizes when it, for example, “[e]ncourages international agencies to take necessary steps to ensure that all their activities with respect to the

DPRK are consistent with the provisions of resolutions 1718 (2006) and 1874 (2009), and further encourages relevant agencies to engage with the Committee regarding their activities with respect to the DPRK that may relate to provisions of these resolutions.”³

Weapons of Mass Destruction

WMD fall under one of three categories: nuclear weapons, biological/toxins, and chemical weapons; and ballistic missiles are the most frequently used form of delivery of these weapons:

- Nuclear weapons are explosive devices that deliver high intensity heat, blast, radiation, and radioactive fallout, either through fission reactions (splitting of the nucleus of a particle) and/or fusion reactions (joining of two nuclei).
- Biological weapons use pathogens (i.e., an agent that causes disease) to attack the cells and organs of humans, animals, or plants (e.g., crops), while toxic weapons use poisons to kill living organisms. Commonly known biological weapons include Agent Orange, anthrax, or detrimental herbicidal products.
- Chemical weapons attack the nervous system and lungs of humans, and are usually dispersed by gas, but also may be transmitted through liquids or solids. Nerve gas and mustard gas are common examples of chemical weapons.
- Missiles (typically ballistic) are the primary means of delivery of nuclear weapons, and are also sometimes used to transport other categories of WMD.

Five countries are recognized as “nuclear weapon states” by the *Treaty on the Nonproliferation of Nuclear Weapons* (NPT).⁴ These are China, France, the Russian Federation, the United Kingdom, and the United States. Although status as a nuclear weapon state is not a requirement for being a permanent member of the Security Council, the P-5 are also the NPT-defined nuclear weapon states.

² According to the UN General Assembly, currently 193 countries are members of the UN.

³ UN Security Council Resolution 2087 (January 22, 2013), UN Doc. S/RES/2087, para. 11.

⁴ The Nuclear Nonproliferation Treaty (NPT) came into force in 1970. Its text explicitly states that, for the purposes of the treaty, “a nuclear-weapon State is one which has manufactured and exploded a nuclear weapon or other nuclear explosive device prior to 1 January 1967.”

The DPRK, India, and Pakistan have also detonated nuclear weapons. Israel is widely believed to have nuclear weapons, although it has not openly stated so. With the exception of the DPRK, none of these states were ever signatories to the NPT. The DPRK formally withdrew from the treaty in 2003, and held its first test of a nuclear weapon in 2006. South Africa is the only state that has dismantled and disarmed its nuclear weapons arsenal.⁵ It was not a member of the NPT during the time it had a nuclear weapons program, but joined after its program was disarmed. A number of “nuclear-weapon-free zones” have been established in many regions of the world, with the majority located in the Southern Hemisphere. The most important zones are the following:⁶

- Treaty of Tlatelolco covering Latin America and the Caribbean;
- Treaty of Rarotonga covering the South Pacific;
- Treaty of Bangkok covering Southeast Asia;
- Treaty of Pelindaba covering all of Africa;
- Treaty on a Nuclear-Weapon-Free Zone in Central Asia; and
- Mongolia, which has declared itself a nuclear-weapon-free zone and obtained recognition from the UN General Assembly with Resolution A/RES/55/33S.

COUNTERING THE PROLIFERATION OF WMD

The first resolution adopted by the UN General Assembly in 1946 established a commission to deal with problems related to the discovery of atomic energy. The elimination of all national atomic arsenals remains a UN priority as part of its mandate to maintain international peace and security. Distinct from the UN’s disarmament agenda, a number of multilateral treaties have been established with the aim of containing and preventing the proliferation and testing of nuclear, chemical, and biological weapons. These include the NPT, the *Treaty Banning Nuclear Weapon Tests in the Atmosphere, in Outer Space and Under Water*, also known as the Partial Test Ban Treaty (PTBT), and the Comprehensive Nuclear-Test-Ban

Treaty (CTBT). The treaties in force against the uncontrolled proliferation of chemical and biological weapons include the Biological Weapons Convention (BWC) and the Chemical Weapons Convention (CWC). No international convention exists to control the spread of ballistic missiles, which are among the most dangerous delivery systems for WMD. However, two important support mechanisms exist with the Hague Code of Conduct Against Ballistic Missile Proliferation (HCOG) and the Missile Technology Control Regime (MTCR).

Specialized UN agencies were formed, such as the International Atomic Energy Agency (IAEA) to promote safe, secure, and peaceful nuclear technologies; and the United Nations Office for Disarmament Affairs (UNODA), the Organization for the Prohibition of Chemical Weapons (OPCW), and the Implementation Support Unit (ISU) for the Biological Weapons Convention, to assist member states in the implementation of these treaties.

These treaties and support organizations form the underpinning for the 1718 and 1737 sanctions regimes for the monitoring and control of WMD equipment and their components. The lists of WMD items prohibited by the two sanctions regimes are based on the four multilateral non-proliferation export-control mechanisms, as follows: the Nuclear Suppliers Group (NSG) for nuclear weapons technology, the Australia Group for chemical and biological weapons technology, the MTCR, and the Wassenaar Arrangement (WA), which defines conventional and non-conventional arms and dual-use equipment.

THE 1540 RESOLUTION

In addition to the DPRK and Iran sanctions regimes, the UNSC has adopted under Chapter VII of the UN Charter the WMD-specific Resolution 1540. The 1540 resolution requires member states to adopt and enforce legal and regulatory measures against the proliferation of WMDs, and to criminalize non-state actor involvement in such activity. While Resolution 1540 also established a committee of the Security Council and a panel of

⁵ Belarus, Kazakhstan, and Ukraine had inherited from the former Soviet Union a substantial nuclear arsenal as well as, in the case of Kazakhstan, an important test site. All three countries voluntarily either turned their arsenal over to Russia or disbanded it and related sites after the breakup of the Soviet Union, and they each became signatories to the NPT.

⁶ An important caveat is that in many nuclear free zones there are colonies, military bases, and other installations under the control of nuclear weapon states of which not all have signed the nuclear free zone agreements.

experts to monitor implementation of the resolution, it is not a sanctions regime, as no sanctions were imposed thereunder. The 1540 Committee works toward providing regional seminars and continual expertise to member states on many aspects of non-proliferation, and building important foundations by raising awareness of the 1718 and 1737 sanctions implementation and monitoring mechanisms.

NON-PROLIFERATION: IRAN AND THE DPRK

Iran and the DPRK have signed and ratified the NPT—Iran in 1970 and the DPRK in 1985. However, as mentioned earlier, the DPRK withdrew from the treaty in 2003. Both countries shifted eventually from peaceful nuclear energy programs under IAEA monitoring, toward activities that have caused the Security Council to voice in the preamble to each of its sanctions resolutions various degrees of concern from “serious” to “gravest” over treaty violations. Over time, various indicators, such as the production of fissile material (i.e., uranium enrichment and reprocessing of plutonium), the construction and operation of undeclared research and testing facilities, as well as a lack of cooperation and

sometimes open defiance of the IAEA and other international non-proliferation monitors, have left little doubt that Iran and the DPRK are presenting serious proliferation risks and pose a threat to international peace and security. While Iran has been guarded in revealing the full extent of its proliferation-related activities and aspirations, the DPRK conducted three nuclear tests in 2006, 2009, and 2013 at the Punggye-ri Nuclear Test Site.

Further evidence of the two countries’ sanctions-busting intentions are the development and frequent test firings of their growing ballistic missile arsenals. An important difference between the proliferation risks presented by these two countries is that only the DPRK is subject to restrictions on components and commodities related to chemical and biological weapons.

United Nations WMD Sanctions

Both, the 1718 and the 1737 sanctions regimes comprise wide-ranging measures, including bans on conventional and non-conventional weapons, a travel ban, an asset freeze, and other financial

Table 1. Ballistic missiles with a range of at least 300 km and capable of carrying a payload of 500 kg.

BALLISTIC MISSILE CATEGORY	DPRK	IRAN
Short-range ballistic missiles		
Liquid fuel	Nodong-1, KN-1 (anti-ship) Hwason-6	Shahab-1
Solid fuel	KN-2 Toksa	Tondar-69, Fateh-110 Khalij Fars (anti-ship)
Intermediate-range ballistic missiles		
Liquid fuel	BM25 Musudan	Fajr-3 MIRV (with multiple independent targeted reentry vehicles) BM25 Musudan
Mixed liquid-solid fuel	Unha-2, Unha-3,	Shahab-3A, Shahab-3B, Shahab-3C, Shahab-3D Ghadr-110, Ashoura, Sejiii, Sejjii-2
Long-range or intercontinental ballistic missiles		
Liquid	Taepodong-2	n/a

sanctions. Initial resolutions (1737 for Iran; and 1718 for the DPRK) set the stage for increasingly refined measures and language in subsequent resolutions to clarify issues that had not been sufficiently specified.

These are the first regimes where the Security Council has authorized states to seize cargo if they have reason to believe that prohibited items are involved and report when they do not receive cooperation. The two regimes also provide guidance on the disposal of such embargoed cargo. They also prohibit providing bunkering services except for vessels operating for humanitarian purposes. Furthermore, these sanctions explicitly ask states to monitor the activities of individuals, companies, and financial institutions on their territories (e.g., Resolution 1929 [2010], paras. 22 and 24, Iran). In addition, the regimes include standard exhortations to cooperate with the panels and to supply information at their disposal regarding noncompliance with the relevant measures (Resolution 1929 [2010], para. 13, Iran; and Resolution 2094 [2013], para. 26, DPRK).

UN SANCTIONS ON THE DPRK

Under Chapter VII, the Security Council adopted Resolution 1718 (2006) and subsequent resolutions 1874 (2009), 2087 (2013), and 2094 (2013), to do the following:

- clarify and incrementally increase and refine measures aimed at coercing the DPRK to change its proliferation policies;
- deny and constrain the DPRK in the acquisition of restricted items, and its research, development, and construction of WMD projects;
- deny and constrain financing and transportation-related activities in support of proliferation.

To date, the cumulative targeted sanctions imposed on the DPRK include the following:

- an import and export embargo on certain types of conventional and non-conventional arms, and on any assistance related to military activities, including supplying items or materials connected to ballistic missiles, nuclear programs, or other WMD;

- a ban on exporting luxury goods to the DPRK;
- targeted financial and travel bans on designated individuals, entities, and their family members; and
- a ban on providing any type of financial services or transfer of assets of any kind that could be used to support the prohibited WMD programs or that may help in the evasion of sanctions (See Annex II).

Along with imposing sanctions, the UNSC established the 1718 Sanctions Committee with Resolution 1718 (2006) and a panel of experts through Resolution 1874 (2009), the latter is currently mandated to April 5, 2015. In 2009, the 1718 Committee began designating individuals and entities for targeted sanctions, which currently lists twelve individuals and nineteen entities.⁷

The DPRK remains under Security Council sanctions. It has not complied with UN demands to suspend its development of weapons of mass destruction, nor has it returned to the “Six Party Talks” to achieve a peaceful solution and resume adherence to the NPT.⁸

UN SANCTIONS ON IRAN

Responding to IAEA reports indicating Iran’s lack of assurances and transparency regarding uranium enrichment, and the “possible military dimension” of its nuclear program, in December 2006 the Security Council adopted Resolution 1737 under Chapter VII. Important follow-up resolutions are 1747 (2007), 1803 (2008), and 1929 (2010), each adding to and clarifying the previous sanctions measures.

To date, the overall restrictions imposed on Iran include:

- an import and export embargo on items or materials that contribute to the proliferation of nuclear and ballistic missile programs;
- a ban on the supply of conventional arms;
- financial sanctions on insurance, institutions, or assets that may contribute to WMD proliferation; and
- a travel ban and asset freeze on designated persons and entities.

⁷ UN Security Council, *Letter Dated 24 April 2009 from the Chairman of the Security Council Committee Established Pursuant to Resolution 1718 (2006) Addressed to the President of the Security Council* (April 24, 2009), UN Doc. S/2009/222.

⁸ Following the DPRK’s withdrawal from the NPT in 2003, the ROK, Japan, the US, China, and Russia initiated with the DPRK a series of meetings for the purpose of finding a peaceful resolution to the arising security concerns.

The Iran sanctions regime does not include prohibitions against chemical or biological weapons.

Resolution 1737 also established the 1737 Committee and Resolution 1929 (2010) established a panel of experts to support the committee. The designation of individuals and entities targeted for sanctions began with Resolution 1737 (2006) and the list currently totals thirty-five individuals and seventy-three entities.

THE P5+1 JOINT PLAN OF ACTION

The P5+1⁹ talks with Iran (also called the E3+3 talks by European countries) resulted in the implementation of the six-month Joint Plan of Action beginning on January 20, 2014¹⁰ that includes the following:

- Iran will stop enriching uranium beyond 5 percent, and it will “neutralize” its stockpile of uranium enriched beyond this point.
- Iran will give greater access to inspectors including daily access at the Natanz and Fordo nuclear sites.
- Iran will not further develop the Arak plant where it intended to produce plutonium.
- The P5+1 will not impose new nuclear-related sanctions for six months as long as Iran complies with the above restrictions.
- Some Iranian assets will be unfrozen and restrictions on certain economic sectors including precious metals imports will be relaxed.

The negotiated terms above relate to EU and US sanctions and so far, have no impact on the UN sanctions regime, nor has the Security Council adopted new sanctions language to indicate easing or lifting of the measures in force. Thus the obligation on UN member states to implement all UN sanctions measures imposed under Article 41, Chapter VII of the UN Charter in resolutions 1737, 1747, 1803, and 1929 continues.

DPRK and Iran Sanctions Measures Explained

The DPRK and Iran are subject to much more refined sanctions measures compared to other UN

sanctions regimes. The remainder of this manual will be devoted to assisting member states, international organizations, entities, companies and individuals in understanding the specificities of the UN measures.

The following explains the restrictive measures as provided by the relevant Security Council resolutions on the DPRK and Iran. While many of the measures are identical or similar, it is recommended that decisions regarding sanctions implementation be verified on the basis of the actual language of the relevant resolutions (see Annexes I and II).

CONVENTIONAL AND NON-CONVENTIONAL ARMS EMBARGOES

Any sale, supply, or transfer, directly or through third parties, of military materiel to the DPRK is prohibited to all member states according to Resolution 1718 (2006), paragraph 8 (a)(i), which specifies that the embargoed items include battle tanks, armored combat vehicles, large caliber artillery systems, combat aircraft, attack helicopters, warships, missiles or missile systems, or related materiel including spare parts. Regarding Iran, voluntary measures imposed in Resolution 1747 (2007), paragraph 6, calling on all member states to exercise vigilance and restraint in the supply, sale, or transfer of certain types of conventional weapons, became mandatory by Resolution 1929 (2010), paragraph 8 (see Annex I).

For the DPRK, Resolution 1718 (2006), paragraph 8 (a) (ii) and for Iran, Resolution 1737 (2006), paragraph 3, also prohibit all WMD related items, materials, equipment, goods, and technology identified in the non-proliferation lists (see Annexes III, IV, and V). Most items in these lists, particularly regarding restricted nuclear and ballistic missile technologies are embargoed for export to Iran under Resolution 1747 (2007), paragraphs 3 to 6.

Paragraph 8 (b) of Resolution 1718 (2006) determines that the DPRK must cease exporting to other member states all conventional and non-conventional arms. Iran is also prohibited from exporting conventional or non-conventional arms according to Resolution 1747 (2007), paragraph 5.

⁹ This includes the five permanent members of the Security Council plus Germany.

¹⁰ See the statement by the coordinator of the P5+1 (E3+3), “EU High Representative Catherine Ashton on the Joint Plan of Action with Iran,” available at www.eas.europa.eu/statements/docs/2014/140120_02_en.pdf.

Paragraph 8 (c) of Resolution 1718 (2006) clarifies that the DPRK embargo includes technical training, advice, services or other assistance related to the manufacturing, maintenance, or use of all embargoed military items. For Iran, paragraph 6 of Resolution 1737 (2006) prohibits technical assistance or training, financial assistance, investment, brokering or other services, and the transfer of financial resources or services related to the supply, sale, transfer, manufacture, or use of the embargoed non-conventional weapons.

However, Resolution 1874 (2009), paragraph 10, allows the supply, sale, or transfer of small arms and light weapons to the DPRK after a state notifies the 1718 Sanctions Committee.

BUNKERING

Coinciding with the arms embargo, for the DPRK sanctions regime, paragraph 17 of Resolution 1874 (2009), and for Iran, paragraph 18 of Resolution 1929 (2010), require all member states to prohibit “bunkering services” to vessels believed to transport supplies for the proliferation programs. A bunkering service includes providing fuel, supplies, or other services to a maritime vessel. The provision specifically excludes vessels operating for humanitarian purposes.

INSPECTION ON HIGH SEAS

According to Resolutions 1929 (2010), paragraph 15 for Iran, and Resolution 2094 (2013), paragraph 16 for the DPRK, member states may inspect cargo on vessels if the state has “credible information and can provide reasonable grounds” that the cargo contains items under sanctions. Furthermore, if an inspection reveals prohibited items, member states must seize the prohibited item(s) and dispose of them. The authority to inspect applies to airports and seaports, and to vessels located within a member state’s territorial waters, or on the high seas with the consent of the flag state.

TRAVEL BANS

The 1718 (2006) and the 1737 (2006) sanctions regimes include travel bans for designated individuals under the published and frequently updated consolidated lists.

As stipulated in Resolution 1718, paragraph 8 (e) for the DPRK, and in Resolution 1929, paragraph 10, an individual may be designated for a travel ban if the person is engaging in, is directly associated with, having responsibility for, providing support

to, or promoting activities related to the development and proliferation of WMD.

Based on these criteria, member states may recommend individuals to the committees for listing.

The travel bans require that member states prevent designated individuals (or their family members in the case of the DPRK) from entering or transiting through their territory. This includes all means of transportation, such as road vehicles, railways, marine vessels, and aircraft. Therefore, any member state that allows any designated individuals (and/or their family members in the case of the DPRK) into its territory, or any individual or entity that, knowingly or unknowingly, transports designated individuals and/or their family members across international borders is violating the travel ban.

ASSET FREEZES

Individuals, entities, organizations, or companies can be the subject of an asset freeze under the Iran and the DPRK sanctions regimes. Member states or panels of experts recommend to the sanctions committees candidates for the asset freeze lists based on the criteria set forth for the DPRK in Resolution 1718, paragraph 8 (d), and for Iran in Resolution 1737, paragraph 12. Individuals are eligible to be subject to an asset freeze if they are engaged in the following:

- engaging in or providing support to activities related to the proliferation of WMD programs;
- working on behalf of or under the direction of an individual or entity already designated for targeted sanctions (i.e., on the list);
- assisting in the evasion of sanctions; and/or otherwise violating the sanctions.

An entity, organization, or company may be listed for the following reasons:

- engaging in or providing support to activities related to the proliferation of WMD programs;
- working on behalf of or under the direction of an individual or entity already designated for targeted sanctions (i.e., on the list);
- being owned or controlled by an individual or entity already designated for targeted sanctions (i.e., on the list).

The resolutions stipulate that the assets of a designated individual or entity located within the

territory of a member state must be frozen. An asset can include funds, financial assets, and economic resources belonging to the designated individual or entity.

Failure to freeze the assets of the listed individuals and entities, could be considered as supporting or assisting those listed, and therefore considered a sanctions violation.

It is also important to note that in many cases national legislation will apply not only to designated entities (on the UN list), but also to any entity owned by, controlled by, or operating on behalf of a designated entity. This, in effect, places the onus on the exporter, banker, and state authorities to determine if a company is acting as a front company or proxy for a designated entity.

OTHER FINANCIAL SANCTIONS

In an effort to impede the proliferation of WMD in the DPRK and Iran, the Security Council has taken an increasingly stronger stance on limiting access to broader financial resources and services. For this purpose it has imposed financial restrictions that include, and go beyond, the specific targeted assets freeze on designated individuals and entities. They prohibit the provisioning of financial services or the transfer of financial assets to the DPRK or Iran that could either contribute to the proliferation of WMD, contribute to obtaining other weapons, or support the evasion of sanctions.

Resolution 1874 (2009), paragraph 10, calls upon member states to prevent financial services or transfers of financial or other assets and economic resources that could assist the DPRK's proliferation of WMD. Resolution 1929 (2010), paragraph 11, applies the same restrictions for transactions benefitting Iran's proliferation efforts. These restrictions include guarantees for trade-financing with the DPRK and Iran, and the direct granting of credits, allocation of grants, loans or other financial assistance, except those designated for humanitarian and development purposes, or for the promotion of the denuclearization of the DPRK. The follow-up resolutions, 2094 (2013), paragraph 11, for the DPRK, and 1929 (2010), paragraph 23, for Iran, increase financial restrictions by calling on member states to prohibit the opening of new

branches, representative offices, or the initiation of joint ventures or other project financings involving DPRK or Iranian banks or financial institutions. Additionally, Resolution 2094 (2013), paragraph 11, restricts the provision of bulk cash that could contribute to the DPRK's nuclear or ballistic missile programs.

For example, for the DPRK, this could include funds used to purchase a centrifuge, to pay for the manufacture of missile guidance systems, to purchase spare parts for a tank, to repair or fuel a warship, or cash payment for the transportation and insurance of any of these restricted items.

Under the Iran sanctions, a number of very specific prohibitions are raised. Resolution 1929 (2010), paragraph 7, states that Iran shall not acquire an interest in any commercial activity in another state involving uranium mining, production, or use of nuclear materials and technology, in particular uranium enrichment and reprocessing activities, all heavy-water activities or technology related to ballistic missiles capable of delivering nuclear weapons. A second directive in the same resolution calls on all states to require their citizens, residents, and companies to exercise vigilance when doing business with entities incorporated in Iran or subject to Iran's jurisdiction, including those of the Islamic Revolutionary Guard Corps (IRGC) and the Islamic Republic of Iran Shipping Lines (IRISL).

LUXURY GOODS EMBARGOES

All member states are prohibited from exporting goods to the DPRK that could be considered a luxury item. In Annex IV of Resolution 2094 (2013), and in the "Implementation Assistance Notice," updated on June 25, 2013, the 1718 Committee identified the following items: jewelry with pearls, gems, precious and semi-precious stones (including diamonds, sapphires, rubies, and emeralds); jewelry of precious metal or of metal clad with precious metal; yachts; luxury automobiles (and motor vehicles); automobiles and other motor vehicles to transport people (other than public transport), including station wagons, and racing cars. Depending on an implementing state's interpretation of what constitutes luxury, other items may also apply.¹¹

11 See 1718 Committee, "Implementation Assistance Notice No. 3: Guidelines for the Implementation of Measures Regarding 'Luxury Goods' Under Security Council Resolutions 1718 (2006), 1874 (2009), 2087 (2013) and 2094 (2013)," available at www.un.org/sc/committees/1718/pdf/implementation_assistance_notice_3.pdf.

WMD Sanctions Violations¹²

EFFECTIVE INTERVENTIONS AGAINST WMD PROLIFERATION—THE CATCH-ALL PROVISION

UN sanctions against the proliferation of WMD benefit from national and international export control efforts. With the end of World War II, states began systematically to develop rules and lists of restricted items for their national export control legislation. Referring to themselves as like-minded states, some of these states initiated international export control instruments and mechanisms, now called export control regimes. Most UN member states are either participants or accept the regimes as standard-setting mechanisms.

An intractable challenge to effective WMD non-proliferation efforts are the many items or components of lower-level technology that may have dual-use application but are not listed, while still having the potential to further a proliferation program. Typically, these items and technologies are widely available because they can serve both military and civilian purposes. Nuclear or ballistic missile test equipment; machining tools; certain steels, other metals, fibers, and aluminum; electronics and their parts or computer equipment and software; some chemical precursors;¹³ biological matters; and related manufacturing and storage equipment can all serve useful civilian or WMD-related purposes.

For instance, some of the materials and technologies that are required for the production of nuclear power can also be used to develop a nuclear bomb; rockets can propel weather satellites or missiles with a chemical payload. Software can be used to program computers for businesses or to direct deadly weapons.

For these obvious reasons the lists of prohibited items cannot contain all items, which depending on their end-use, may have to be subject to controls too. The response to the challenge of determining which of these items must be restricted has been to focus not on describing the nature of an item but

on its end-use. In other words, if a potentially unrestricted component, technology, or software could meaningfully contribute to the research, development, construction, use, and maintenance of a WMD program, it must be controlled. For this purpose the concept of a “catch-all” provision emerged.

The provision imposes on the supplier a regulatory and legal requirement to obtain an export license from the relevant government if a reasonable possibility exists that the end-use of the item/items may contribute toward WMD proliferation. In many states the “catch-all” provision extends to “intangibles” or the conveyance via “intangible means,” meaning proliferation-relevant information, and the transporting of information, for example, via electronic means.

The imposition of a due diligence burden on the supplier is a key element in the international community’s non-proliferation strategy. Guidelines that are commonly used to define the due diligence requirements that lead to the legal obligation to obtain an export license typically include the following considerations:

- Do inquiries with the recipient, in the public and confidential records, or past conduct of the recipient of the item lead to reasons to believe that an export will enable treaty-contravening activities related to unsafeguarded nuclear, chemical, and biological weapons programs and their means of delivery?
- Do inquiries with the recipient, in the public and confidential records, or past conduct of the recipient of the item lead to reasons to believe that the end-use of the dual-use item will be in a state that is under embargo by the 1718 and 1737 UN sanctions regimes?
- Do inquiries with the recipient, in the public and confidential records, or past conduct of the recipient of the item lead to reasons to believe that an export of the dual-use item may create an unacceptable risk of an end-use in the context of an illegal WMD proliferation, or of a diversion to WMD activities?

¹² Non-UN sanctions regimes are not covered by this manual. Users of the manual should take into account that the EU has also imposed sanctions on the DPRK, and a number of countries have imposed unilateral sanctions including Japan (a complete trade embargo), and individual targeted sanctions by China, the Republic of Korea, Hong Kong, New Zealand, Australia, Canada, the United States, the United Kingdom, and Switzerland. The EU has also imposed measures on Iran, while broader unilateral measures have been imposed by Australia, Canada, India, Israel, Japan, and the United States.

¹³ Chemical precursors help to produce another chemical compound, for example to configure a chemical weapon.

Most states that have adopted a “catch-all” provision in their export control rules usually refuse an export license if these criteria cannot definitively be denied. Further reasons to deny an export permit is usually recognized by most states if the export is undertaken by an individual or to an individual with a direct or indirect role in WMD-related projects.

In early February 2014 the sanctions committee for the DPRK released “Implementation Assistance Notice No. 4: Proper Implementation of Paragraph 22 of Resolution 2094 (2013),” which is a first attempt to formalize guidance on catch-all provisions.¹⁴

SANCTIONS AGAINST NUCLEAR WEAPONS PROLIFERATION

Currently, two lists are in force as part of the UN sanctions regimes under resolutions 1718 (DPRK) and 1737 (Iran). One refers to nuclear material, equipment, and technology related to the handling and processing of nuclear materials. The second lists nuclear-related dual-use equipment, materials, software, and related technology (see Annex III and Annex IV). Both lists were assembled by the Nuclear Suppliers Group (NSG) and were provided via the IAEA to the sanctions committees as guidelines to identify potentially non-permissible transfers of nuclear materials, equipment, and technology and nuclear-related dual-use items to any non-nuclear-weapon state.

In order to regulate such transfers, suppliers require formal governmental assurances from recipients that the items and related technologies will explicitly exclude uses that would result in any nuclear explosive device or “unsafeguarded nuclear fuel-cycle activity.” In other words, the prohibited items and technologies are more precisely to be considered trigger lists. The documents list a number of prerequisites that must be met by the recipient state before transfers can be approved. In very general terms, part of these conditions include whether the recipient is a lawful and compliant signatory to the NPT; is not in breach of its safeguarding agreements with the IAEA; is

adhering to the guidelines of the NSG; and is complying with the non-explosive use, safeguard, and retransfer agreements with its suppliers.

Given the extensive international legal and regulatory structure, proliferation of prohibited nuclear weapons technology is usually criminalized, involving theft and fraud, false customs declarations, and other types of smuggling.

SANCTIONS AGAINST THE PROLIFERATION OF BALLISTIC MISSILE TECHNOLOGIES

Restricting access to missiles and the closely related drone technologies is an important aspect of an effective non-proliferation strategy.¹⁵ Missiles and drones have a dangerous potential to carry and deliver payloads of weapons of mass destruction anywhere in the world. The surreptitious nature and function as a vector of WMD elevates certain missiles and drones to an important strategic threat to the world community.

Nevertheless, the international community has so far not agreed on a legally binding instrument to deal with these threats. However, there are multilateral efforts to prevent the proliferation of missiles and related technologies, such as the HCOC and the MTCR. As an informal and voluntary association of countries sharing an interest in non-proliferation of delivery systems for WMD, the MTCR published a “Missile Technology Control Regime Annex Handbook” in 2010.¹⁶ It also serves as an important reference tool for the UN’s WMD sanctions.

The prohibited items, materials, equipment, goods, and technology related to ballistic missile weapons and drone programs are formally identified in Security Council document S/2012/947 (see Annex V).

SANCTIONS AGAINST THE PROLIFERATION OF CHEMICAL AND BIOLOGICAL WEAPONS

Chemical and biological weapons are the oldest and most often deployed weapons of mass destruction. At the same time, their illegal use poses the

¹⁴ 1718 Committee, “Implementation Assistance Notice No. 4: Proper Implementation of Paragraph 22 of Resolution 2094 (2013),” available at www.un.org/sc/committees/1718/pdf/implementation_assistance_notice_4_english.pdf.

¹⁵ Drone technologies are extensively covered in US Government, “Missile Technology Control Regime Annex Handbook,” 2010, under Category I—Item 1: Complete Delivery Systems, 1. A. 2. Complete unmanned aerial vehicle systems (including cruise missile systems, target drones, and reconnaissance drones) capable of delivering at least a 500 kg “payload” to a “range” of at least 300 km.

¹⁶ *Ibid.*, Annex III to V.

most challenges and their regulation requires a great deal of vigilance owing to their very diverse source materials, forms of manufacturing, and deployment. Chemical and biological weapons can be constituted in the form of easily dispersed powders, liquids, gases, or many forms of biological specimens. Typically, they are loaded into standard munitions such as grenades, artillery shells, other types of ordnance, or can simply be released from containers into the air, water, or soil, or directly injected into individuals.

The Geneva Protocol of 1925 was the first legal instrument that prohibited the use of chemical weapons in warfare. The Biological Weapons Convention (BWC), entering into force in 1975, was the first multilateral disarmament treaty for an entire class of WMD. Nevertheless, significant technological development, manufacturing, and stockpiling of chemical and biological weapons continue in many countries. After lengthy negotiations, the Chemical Weapons Convention (CWC) was adopted by the Conference on Disarmament in Geneva that authorizes the verification of compliance by all states. The Organization for the Prohibition of Chemical Weapons (OPCW) is the official implementation agency of the convention. Efforts to promote confidence-building measures and better compliance with the Biological Weapons Convention (BWC) have resulted in periodical review conferences and in the formation of the Implementation Support Unit (ISU) to assist States parties in implementing the Convention.

The UN list (see Annex VI) contains chemical precursors, dual-use chemical manufacturing facilities, equipment, and related technologies.

MARITIME PORTS, AIRPORTS, AND ACCESS ROADS TO AND FROM THE DPRK AND IRAN

Air: The DPRK relies on a limited number of shipping means and routes to handle its exports and imports. The only commercial airline of the DPRK is Air Koryo with a small fleet of aircraft of modest heavy cargo capacity. Since the imposition of UN sanctions, most scheduled services were terminated, except flights between Pyongyang's Sunan International Airport and Beijing and Shenyang in China, Vladivostok in Russia, and periodic charter services to Moscow, Khabarovsk, Macau, Bangkok, or Shenzhen. In contrast to the

DPRK, dozens of airlines are operating from Iran.

Road/Rail: Because of poor road conditions, heavy cargo transport on land to the DPRK is limited to three railway connections with China, via Sinuiju-Dandong, Namyang-Tumen, and Manpo-Ji'an and one line connecting Sonbong with Khasan in the Russian Federation. Road links to China lead across its border with the DPRK demarcated by the Yalu (also called the Amrok River in the DPRK) or to Russia crossing the Tumen or Duman rivers. There are many road connections from Iran to all neighboring states, as well as rail connections with Azerbaijan, Pakistan, Turkey, and Turkmenistan, but not with Armenia. Multiple direct road connections with Iraq also extend to the Syrian Arab Republic, allowing exports of embargoed material.

Sea: There are eight operative maritime ports in the DPRK, with Nampo Seaport as the country's largest general cargo port. Songrim serves as the country's oil terminal and the harbors of Haeju, Chongjin, Rajin, Sonbong, Hungnam, and Wonsan accommodate only small coastal vessels. The Panel of Experts on the DPRK has indications that in order to consolidate and trans-ship consignments and to save costs, DPRK sanctions violators also prefer using nearby ports such as Hong Kong, China, or Kaohsiung, in the Taiwan Province of China. Iran's seaports to the Indian Ocean include Korramshahr, Iman Khomeini in Bandar Mahshahr, Bushehr, Bandar Abbas, Shahid Rajaei near Bandar Abbas, and Chabahar. Iran's access to the Caspian Sea includes the ports of Amirabad, Nowshahr, and Anzali.

Lessons Learned from the Implementation of DPRK and Iran Sanctions

Violators of the Iran and DPRK sanctions regimes are extraordinarily resourceful and versatile in exploiting any gaps in the international community's implementation strategies. For example, a bilateral scientific and technological assistance memorandum of understanding (MOU) between the DPRK and Iran appears to advance both countries' nuclear and ballistic missile proliferation. According to the UN Panel of Experts most recent report released in June 2013, one third of the

DRPK's foreign sales of WMD technologies appear to end up in the Syrian Arab Republic.¹⁷ The Panel disclosed in 2010 that the DPRK provided assistance for a nuclear program in the Syrian Arab Republic, including the design and construction of a nuclear research reactor at Dair Alzour. This installation was destroyed in a 2007 military attack by Israel, as confirmed by the IAEA.

To prevail against these odds, it is important that all government officials and compliance officers of the private sector with sanctions implementation responsibilities are not only aware of the 1718 and 1737 regime's provisions. They should understand the methodologies used by violators of the DPRK and Iran sanctions. The following "lessons learned" sections summarize the structures of the DPRK and Iran proliferation networks, their methodologies in committing violations of the conventional arms embargoes, and provide case histories of their proliferation efforts concerning nuclear and chemical/biological weapons, and ballistic missile technologies.

DPRK NETWORK OF PROLIFERATORS

The DPRK operates government agencies, academic institutions, and companies for both the procurement as well as the sale of embargoed material. The National Defense Commission (NDC), the Workers' Party of Korea (WPK), and the Korean People's Army (KPA) are the central actors in these endeavors. Within this structure, the General Bureau of Surveillance of the Korean People's Army and the Second Academy of Natural Sciences lead in the research, development, manufacturing, marketing, and export of conventional arms and military equipment.

In response to the 1718 Sanctions Committee's designation of a number of violators of DPRK sanctions, this original procurement network expanded with substitute actors to allow greater flexibility in their illegal procurement and marketing efforts. The General Bureau of Surveillance of the Korean People's Army accorded a major role in the country's embargoed arms exports to Green Pine Associated Company, which also operates under the name Paeksan Associated Corp. Green Pine frequently fronts

Korea Mining Development Trading Corporation, also known as Changgwang Sinyong Corporation, Changgwang Trading Corporation, or "KOMID."

Office 39 of the WPK heads the leading banks and financial facilitators of proliferation efforts and embargo violations. Banks and financial institutions engaged through Office 39 are Tanchon Commercial Bank and its affiliate Amroggang Development Bank, Korea Kwangson Banking Corporation (KKBC) and their networks of overseas branches. Korea Daesong Bank and Korea Daesong General Trading Corporation are noted for facilitating international proliferation activities.

Beginning in March 2013 with the establishment of the State Space Development Bureau, the development and construction of the DPRK's ballistic missile program may be a shared responsibility with the previous lead managers of the Munitions Industry Department of the Central Committee of the Workers' Party of Korea (variously referred to as the Military Production Arms Department, the Military Supplies Industry Department, the Machine Industry Department, and the Machine Building Industry Department, or the WPK Central Committee).

DPRK EVASION AND SMUGGLING STRATEGIES

These entities and a growing and ever-changing group of front companies practice multiple evasion strategies in the import and export of restricted items and goods. The illicit content of consignments is masked, for example, by DPRK's customs officials sealing containers for transit, mislabeling containers, falsely describing shipping documents and commercial invoices, or making false declarations to customs and border control. Beginning in June 2010, the UN Panel of Experts uncovered a number of smuggling and evasion strategies. In third countries, illegal shipments in DPRK custom-sealed consignments¹⁸ are often repackaged into standard shipping containers together with other legitimate items and forwarded with new labels that conceal their true origin and content—an effective strategy at least against perfunctory physical examination. Such laundering practices of illegal shipments, repeated multiple times, combined with

17 UN Security Council, *Report of the Panel of Experts Established Pursuant to Resolution 1874 (2009)* (June 11, 2013), UN Doc. S/2013/337.

18 This particular form of smuggling was first reported by the UN Panel in its June 2010 report (UN Security Council, *Report of the Panel of Experts Established Pursuant to Resolution 1874 (2009)* [November 5, 2010], UN Doc. S/2010/571) and again in its June 2012 report (United Nations Security Council, *Report of the Panel of Experts Established Pursuant to Resolution 1874 (2009)* [June 14, 2012], UN Doc. S/2012/422).

circuitous shipping routes that change at the slightest hint of a high-seas inspection, make the proliferation efforts very hard to detect.

Another important evasion strategy is the layering of multiple levels of contractors dealing with the shipping and financial aspects of an embargoed transaction. Using several intermediaries serves to obfuscate a shipment to the point where efficient backtracking to the original consignor or recipient will be very difficult. In many cases, the embargoed items can be concealed by supplying partly disassembled units along with the technical personnel capable of reassembling them at the destination. The following two examples illustrate the multi-smokescreen strategy practiced by DPRK arms proliferators in recent years.

Case 1: DPRK-Iran arms sales involving false declarations, trans-shipment, filing of multiple flight plans and multi-layering of transporters

In December 2009 the authorities at Don Mueang Airport in Bangkok, Thailand, intercepted an Ilyushin-76 aircraft chartered by Korea Mechanical Industry Company Ltd. of the DPRK from Air West Company during a refueling stop. Investigations conducted by the government of Thailand revealed that the airplane carried 35 tons of arms, 240 mm rockets, rocket-propelled grenades, and other military materiel from Sunan International Airport in Pyongyang and was en route to the ultimate recipient, Top Energy Institute in Iran. Air Koryo, the national carrier of the DPRK, had issued the airway bill on which the cargo was identified as “145 crates of mechanical parts.” To further conceal the identity of the consignor and the destination, a web of intermediaries had filed multiple flight plans. They included the Georgia-registered Ilyushin Il-76 cargo plane owner, based in the United Arab Emirates, who leased it to a New Zealand company by the name of SP Trading Limited, who chartered it to the Hong Kong based Union Top Management. The UN Panel of Experts in its most recent report suspects that Aleksandr Viktorovich Zykov, a Kazakhstan national and director of the airline East Wing, his long-time associates Iurii Lunov and Igor Karev-

Popov, Ukraine nationals, orchestrated the multiple changes of ownership of the aircraft to ultimately retain control over it through his wife, Svetlana Zykova, and his associate’s company, SP Trading Limited.¹⁹

Case 2: DPRK-DRC arms transfer involving fraudulent cargo manifest, multi-trans-shipment and en-route repackaging

A shipment to the Democratic Republic of the Congo shipped by Machinery Export and Import Corporation of the DPRK, intercepted in Durban, involved spare parts to refurbish T-54 and T-55 tanks and other military equipment. Cargo manifests designated the items as spare parts for bulldozers, but the shipment had been on a circuitous route to confuse customs inspectors. The material originated in the DPRK and was transferred in the port of Dalian, China, to the British-flagged CGM Musca, owned by French ship operator CMA CGM. It was again transferred in Port Klang, Malaysia, to the Westerhever, sailing under the Liberian flag on behalf of Delmas Shipping. The UN Panel had investigated this case in February 2010 and reported subsequently that during these transfers the spare parts were repackaged in the midst of a large consignment of sacks of rice.²⁰

DPRK’S USE OF ITS DIPLOMATS

Officials and diplomats of the DPRK have a long history of using their diplomatic status to acquire proliferation-relevant information or operate procurement networks. Based in the DPRK embassy and as the representative to the IAEA, Yun Ho-Jin (now under targeted UN sanctions) was running an illicit procurement network and pursuing other illicit and criminal activities.²¹

The DPRK’s Europe-based diplomats are reportedly interested in acquiring technology and technical know-how on metal processing. DPRK diplomats in African capitals have arranged for the sale of military items and their maintenance and repair in contravention of UN sanctions. Using diplomatic covers, procurement officers such as O Hak-Chol have attempted to acquire weapons, such as ManPads (Man-Portable Air Defense systems), and evade the UN ban on luxury goods.²²

19 UN Security Council, *Report of the Panel of Experts Established Pursuant to Resolution 1874 (2009)* (June 11, 2013), UN Doc. S/2013/337, paras. 75–79.

20 UN Security Council, *Report of the Panel of Experts Established Pursuant to Resolution 1874 (2009)* (November 5, 2010), UN Doc. S/2010/571, para. 63.

21 UN Security Council, *Report of the Panel of Experts Established Pursuant to Resolution 1874 (2009)* (June 11, 2013), UN Doc. S/2013/337, para. 49.

22 *Ibid.*, para. 50.

IRAN'S PROCUREMENT NETWORKS

Documented launches of ballistic missiles during the “Great Prophet 7” military exercises conducted in 2012 by the Aerospace Force of the Islamic Revolutionary Guard Corps were reported by the UN Panel of Experts as violations of UN sanctions. The Revolutionary Guard is frequently also referred to as *Sepāh*, for “army” or *Sepāh e Pāsdārān*, for “army of guardians,” all abbreviations of its Farsi name: *سپاه پاسداران انقلاب اسلامی*.

Founded in 1979 as the country's principal force in defense of the Islamic revolution, it quickly consolidated the Qods Force (paramilitary and elite forces), the Basij Forces (volunteer militia), and the Ansar-ul-Mehdi (counter-intelligence and tactical protection forces). Because of its prominent role in the revolution, the Revolutionary Guard asserts control over important economic actors and academic institutions. The Qods Aeronautics Industries, where unmanned aerial vehicles are developed for export, or the Khatam al-Anbiya, Iran's leading engineering and construction company, which is working on some of the proliferation projects, are examples of significant national institutions operating under the Guard's aegis. They and many other Guard-controlled companies and research institutions as well as its most senior military, economic, and scientific leaders associated with WMD proliferation projects, are subject to targeted UN sanctions.

IRAN'S USE OF NETWORKS OF EXPATRIATES AND FRONT COMPANIES

Iran's procurement networks typically employ a combination of trans-shipments, fraudulent customs declarations, falsified end-use information, concealment of embargoed items among legitimate cargo, and the use of front companies operating outside and inside Iran. The UN Panel of Experts also reported on ways by which Iran has attempted to transport contraband military equipment using overland transport, on board Iranian ships and airplanes (e.g., Iran Air, Mahan Air, and Yas Air), and taking advantage of poorly monitored airspace in neighboring countries such as Iraq or Afghanistan. Its network of agents is often recruited from expatriate Iranian and other sympathetic international traders, as well as from Iranian diplomats stationed either in highly industrialized

countries, for buying WMD-relevant components, or selling conventional military goods.

Iranian procurement networks have further refined the use of front companies by furnishing a false address for onward delivery of items to a third country, and setting up companies in countries that permit quick and unbureaucratic registration procedures. Often, such companies are used for only one or a short series of quick-succession transactions before they are abandoned.

Sometimes illicit procurement efforts are conducted through multiple intermediary companies or trading agents, including brokers, shippers, and freight forwarders. They can also be instrumental in altering shipping documents at the last moment, to conceal the actual destination in Iran or an Iranian recipient abroad. Finally, ex-factory or ex-works orders serve as the most basic way of concealing the recipient of an order, since the ordered goods are pre-packaged for pick up from the supplier.

IRAN AS SUPPLIER OF CONVENTIONAL ARMS

Using various combinations of the above tactics, Iran and its agents act as suppliers of conventional arms and military materiel to buyers abroad. Examples of these types of embargo violations are:

- 122-mm rockets, fuses, and ammunition discovered in southern Afghanistan;²³
- nineteen crates containing assault rifles, machine guns, ammunition and mortar shells seized in March 2011 by Turkey from an Ilyushin-76 cargo aircraft operated by Yas Air and destined for the Syrian Arab Republic;
- a truck-load of explosives in Southern Turkey bound for the Syrian Arab Republic was intercepted in February 2011;
- forty spare parts for a Fokker 27 aircraft, including seals, valves, and related parts transhipped in November 2010 via Bahrain by air to Ana Trading, a front company for the Iranian military forces;
- shipment of boxes with ammunition and arms, some also containing other military and non-military items and materials, including man-portable air defence systems marked “Ministry of

23 Reported by the United Nations Office on Drugs and Crime, *The Global Afghan Opium Trade: A Threat Assessment* (Vienna, July 2011).

Sepah” were found both on Yas Air and in Israel, as the UN Panel reported in June 2012;

- 122-mm rockets, rocket-propelled grenade launchers, C-4 plastic explosive blocks, and electrical equipment that can be used to manufacture improvised explosive devices on board the Jihan in April 2013, which was intercepted by the Yemeni Coast Guard and the United States Navy; the seized items were concealed in four compartments hidden in diesel fuel tanks, which could not be accessed from the deck unless the tanks were emptied;
- explosives to Kenya for what authorities believe

were terrorist activities and for which the Panel of Experts received indications from a state for involvement of the Qods Force of the Islamic Revolutionary Guard Corps.²⁴

IRAN’S DRIVE FOR HIGH-QUALITY WMD ITEMS

At the same time, the procurement and sales networks serve Iran in its relentless acquisition drive for high-quality prohibited WMD items in many highly industrialized states. The following table of reported attempts or successful acquisitions during 2013 illustrates the broad collection efforts by Iran’s procurement networks.

Table 2. Summary of the UN Panel of Experts report (S/2013/331) concerning Iran’s procurement of high-quality items.

COUNTRY	ITEM
Spain	Export of machine tools
Germany	Technical equipment for satellite technology
United States	Vacuum equipment for test stands, pressure transducers, vacuum pumps, materials for the fabrication of centrifuge machine components, magnetic tape, maraging steel, aluminum alloys
United States	Specialized metals for possible use with ballistic missile program
France	Request for fiber optic gyroscope
Undisclosed	High-quality valves for use in the IR-40 Arak heavy water research reactor
Undisclosed	Process control equipment, pressure transducers, electro-pneumatic positioners, programmable logic controller, related equipment and software for nuclear reactor or centrifuge cascade
Undisclosed	Stainless steel bellows that may have dual-use value in a prohibited application
Various undisclosed states	Significant quantities of high-strength carbon fiber, possible counterfeits of products by a well-known manufacturer; may have been intended for the construction of centrifuge rotors,
Undisclosed	Ring magnets for top bearing and suspension assembly of gas centrifuges
Undisclosed	Stainless steel tubes and piping, varying from very small to larger diameter, to connect gas centrifuges to form cascades
Undisclosed	High strength aluminum bellows (7000er series) for centrifuge rotors, baffles, and end caps; medium strength alloys (6000er series) for centrifuge vacuum casings
Undisclosed	Inverters or frequency changers to supply high frequency electrical power for the drive motors of gas centrifuges
Undisclosed	Semi-hard magnetic alloy, cobalt-iron-vanadium magnetic alloy for hysteresis type motors
Undisclosed	High-quality data transmission cables, possibly for prohibited missile activities

²⁴ UN Security Council, *Final Report of the Panel of Experts Established Pursuant to Resolution 1929 (2010)* (June 5, 2013), UN Doc. S/2013/331, para. 103; and BBC, “Iranians Jailed for Life in Kenya over Terror Charges,” May 6, 2013.

Case Histories

THE ILLEGAL TRADE OF RESTRICTED NUCLEAR ITEMS

According to the UN Panel of Experts on the DPRK, the North Korean leadership has decided that the acquisition of computer numerically controlled (CNC) technology for the country's atomic energy industry is a top priority. It is assumed that this order extends also to the nuclear weapons proliferation effort as CNC technology has applications in shaping solid propellant motor nozzles or re-entry vehicle nose tips.

The panel's report provides information regarding how the DPRK successfully solicited CNC machine tools and related equipment from companies based in the Taiwan Province of China.²⁵ This includes reports about deliveries of industrial computers, exported by Royal Team Corporation, a horizontal machining center supplied by Ching Hwee International Trading Company Limited to Ryonha Machinery Joint Venture Corporation (a DPRK entity listed under targeted UN sanctions), and three CNC controlled machine tools exported by Ho Li Enterprises Limited.

Iran's procurement effort for nuclear weapons technology is even more focused on obtaining the highest quality versions of valves, high-strength carbon fibers, process control equipment, stainless steel components, and cables. Examples of relevant reports by UN member states or the UN Panel of Experts on Iran, include the following cases:

- It was discovered that Iran had attempted to obtain German-made valves on behalf of Modern Industries Technique Company for the IR-40 heavy water reactor in Arak. The technical specifications of the orders, including the material specified for valve-body construction and other characteristics, are consistent with the standards for nuclear power generating stations. Owing to these and other specificities, the orders caught the attention of export control authorities who denied the permits. There are indications

that the valves were provided by suppliers from a third country. The scheme succeeded in part thanks to the use of front companies in third countries and false end-user documentation, disguising Pentane Chemistry Industries as the actual procurer.²⁶

- A naturalized Swedish citizen of Iranian origin had established Petro instrument HB in Sweden in order to procure eighteen valves. He came to the attention of Swedish authorities because of his lack of credible engineering background and employment history, while two Swedish banks had previously filed suspicious transaction reports about his company's financial activities in late 2010 and early 2011. To evade controls, false end-user documentation was furnished, and the delivery was to take place via a third country trans-shipment point where the air waybill would be changed at the last minute to reflect the actual recipient in Iran.²⁷
- A shipment of twenty-eight boxes of carbon fiber from an unnamed country was interdicted in Bahrain.²⁸ The consignee was the Science and Technology Park in Iran. According to the Bahraini authorities, the carbon fiber met the control thresholds established in the UN list of prohibited items.
- An unidentified country intercepted two courier packages, one containing components of a programmable logic controller and related process control equipment and software; the other shipment included two hundred stainless steel bellows. The packages were intended for Iran's nuclear weapons projects but were caught in transit to an individual who fronted for the actual receiver, Kalaye Electric (already listed under the targeted UN sanctions on Iran).²⁹

ILLEGAL TRADE OF RESTRICTED BALLISTIC MISSILE ITEMS

Interceptions of the DPRK's procurement as well as sales efforts for ballistic missile technologies to and from third states have significantly increased in recent years.

25 UN Security Council, *Report of the Panel of Experts Established Pursuant to Resolution 1874 (2009)* (June 11, 2013), UN Doc. S/2013/337, paras. 64 and others.

26 UN Security Council, *Final Report of the Panel of Experts Established Pursuant to Resolution 1929 (2010)* (June 5, 2013), UN Doc. S/2013/331, para. 18–22.

27 *Ibid.*, para. 26–27.

28 *Ibid.*, para. 28–31.

29 *Ibid.*, para. 36–38.

The Republic of Korea inspected and seized an illicit shipment of missile-related items on board the China Shipping Container Lines ship, Xin Yan Tai, while in transit at the Port of Busan in May 2010. This case is particularly relevant given that the actual shipper, Korea Tangun Trading Corporation, was at the time of this incident already under targeted UN sanctions. To evade detection, it enlisted Dalian Haicheng International Freight Agency Co. Ltd. and Electric Parts Company, an affiliate of Megatrade, a company that acts frequently as agent for the Syrian Scientific Studies and Research Centre, which is subject to EU and unilateral sanctions regimes, but not UN sanctions. Originating from Tianjin, China, the container, with a consignment of lead pipes was destined for Lattakia in the Syrian Arab Republic according to the manifest. However, the Korean inspection and subsequent laboratory tests revealed this to be about ten metric tons of “fine grain graphite” suitable for strengthening rocket and re-entry vehicle nozzles.³⁰

The Ukrainian Security Services intervened in July 2012 against Ryu Song-Chol and Ri Thae-Gil, both members of DPRK’s Trade Representative Office in Belarus, and their attempt to obtain classified missile design data. Their target was the Ukrainian parastatal Yuzhnoye Design Office, specifically, the company’s proprietary data and designs of missile systems, liquid-propellant engines, spacecraft, missile fuel supply systems and associated computer program.³¹

The Panel reported allegations by the government of Japan about shipments that took place in 2008 and 2009. In order to manufacture a gyroscope system for missiles, Beijing-based New East International Trading Ltd., an alleged DPRK front company, arranged illegal shipments of three cylindrical grinding machines, and an LCR Meter, and attempted also to obtain an automatic direct current magnetization characteristic recorder. The same buyer also ordered four large air-conditioning units for tunnels, four power shovels,

and two tanker trucks. Upon inquiries by an unrelated state, the identified end-user was indicated to be the Directorate of Defence Industries in Myanmar. However, the DPRK’s Shinfung Trading Company, Ltd. and Korea Paekho 7 Trading appear to be the true buyer.

The UN Panel of Experts on the DPRK identified visual evidence of new 8-axle transporter-erector-launchers displayed during an April 2012 military parade based on information that originated with Wanshan Special Vehicle Company. According to an end-user certificate, six very similarly looking vehicles were sold from Wuhan Sanjiang Import and Export Company, Limited (China) to serve as off-road vehicles for transporting timber. Both Wuhan Sanjiang Import and Export Company and Wanshan Special Vehicle Company are subsidiaries of the China Sanjiang Space Group. According to the report of the Panel of Experts, China has stated that this case does not represent a violation of UN sanctions.³² At the very least, this case clearly demonstrates the challenges faced with dual-use of civilian equipment.

Of note are the designations announced on May 2, 2012, of two DPRK entities, the Korea Heungjin Trading Company, which the committee suspects has been involved in supplying missile-related goods to the Shahid Hemmat Industrial Group of the Islamic Republic of Iran, and Amroggang Development Banking Corporation, which has been involved in ballistic missile transactions from the Korea Mining Development Trading Corporation to the Shahid Hemmat Industrial Group.³³ The Security Council designated the Shahid Hemmat Industrial Group in Resolution 1737 (2006) as an entity involved in the Iranian ballistic missile program.

In contrast to the trade of restricted nuclear or ballistic missile items, there is no available information concerning the attempted proliferation of chemical or biological weapons or compounds by Iran or the DPRK.

30 Ibid., para. 44–46.

31 Ibid., para. 47.

32 UN Security Council, *Report of the Panel of Experts Established Pursuant to Resolution 1874 (2009)* (June 11, 2013), UN Doc. S/2013/337, para. 53.

33 UN Security Council, *Report of the Security Council Committee Established Pursuant to Resolution 1718 (2006) Submitted in Accordance with the Statement of the President of the Security Council Dated 16 April 2012* (May 2, 2012), UN Doc. S/2012/287.

Best Practices and Recommendations

Compliance with UN sanctions requires the coordination and guidance of state authorities either by issuing regulations or adopting laws. As such, best practices for the implementation of UN sanctions are always related to national mechanisms and instruments, state regulations, and law enforcement agencies. However, international organizations play an important harmonizing function in global standardization. For these reasons, the following section first explains the enabling international regulatory and legal context, and secondly, the actual best practices. These best practices are directed to:

- government regulators as priorities for their guidance to and oversight of their private sector partners;
- private sector compliance officers as a list of priority compliance concerns.

1. STATE IMPLEMENTATION OFFICERS

The quality of reporting by states under the 1718 and 1737 sanctions regimes, as with other sanctions regimes, varies widely. For the purpose of this manual the authors devised a rating scheme with scores from 1 to 3, with 3 being the best score.³⁴

EU states tend to report in more detail than most states, including referencing EU regulations. Of ninety-seven states that have reported to the DPRK committee, forty-five received an average score of 1; forty-three received an average score of 2; ten received an average score of 2+. One state was assigned a score of 3. Five states among the 2+ group, besides EU states, submitted reports with elements considered “best practices.”

For the Iran sanctions regime, of 101 states that reported, fifty-nine received an average score of 1; thirty-five received an average score of 2; seven received an average score of 2+, and one received

an average score of 3. Seven states among the 2+ group, besides EU states, submitted reports with elements considered “best practices.”

Recommendations

Following this analysis, and taking into account the 1718 Committee’s “Implementation Assistance Notice” dated October 22, 2013,³⁵ and the “Handout on Implementation” issued by the 1737 Committee on March 18, 2013,³⁶ the following best practices for state implementation are recommended:

- Carefully follow all provisions of the 1718 and 1737 sanctions regimes, and interact where necessary with the relevant committees and panels.
- Enable implementation of the 1718 and 1737 sanctions either by issuing specific regulatory directives or by adopting laws.
- Ensure that national legislation captures not only designated entities (on the UN list) but also any entity owned by, controlled by, or operating on behalf of such designated entities.
- Identify institutional contact points bearing responsibility and having the necessary expertise required for the implementation of sanctions.
- Establish an Inter-Ministerial Task Force comprising ministries and government agencies, convening on a regular basis to collect information on the measures being taken and to identify loopholes in the implementation system.
- Provide criminal penalties including for any breaches that take place in respect of dealing with, or making funds available, within the state and/or by citizens of the state, without prejudice to reporting obligations to the committee.
- Promulgate regulations with extraterritorial reach regarding persons or entities violating sanctions.
- Apply catch-all controls regulating the export and transfer, within and outside of the state’s

³⁴ The authors assigned the scores to each state implementation report, from inception of the regime to the present, according to the following criteria (most states submitted multiple reports, hence the average score):

1 – basic acknowledgment of unspecified implementation obligations;

2 – implementation reporting, that includes references to specific documents through which agencies are tasked and mandated to carry out implementation;

3 – in addition to an elaborated implementation report, references with some detail about specific discoveries of or efforts to intercept illegal proliferation attempts.

³⁵ See 1718 Committee, “Implementation Assistance Notice No. 2: Guidelines on the Preparation and Submission of National Implementation Reports,” available at www.un.org/sc/committees/1718/pdf/implementation_assistance_notice_2.pdf.

³⁶ See “Hand-out Describing Implementation by States of Security Council Resolutions 1737 (2006), 1747(2007), 1803(2008) and 1929(2010),” available at www.un.org/sc/committees/1737/pdf/Handout_Mar2013.pdf.

territory, of otherwise uncontrolled technologies if there is a reasonable suspicion or belief that such export or transfer may assist a WMD-related activity.

- Conduct industry outreach and public awareness programs and training programs for customs and other officials.
- Customs authorities should make use of a range of technologies in the inspection processes, including X-ray content examination facilities, radiation detection devices, and chemical and explosive trained detection dogs.

It should be noted that the Panel of Experts on the DPRK included among its recommendations in its latest report, that “Some States lack sufficient resources and trained and experienced officials to give proper priority to the effective implementation of sanctions. Such States would benefit from support, including training and the development of technical expertise.”³⁷

Finally, state implementation officers may find useful the following indicators of suspicious activities as identified by companies to the Panel of Experts on Iran:³⁸

- reluctance by the customer to share information on end-use and end-user;
- inconsistency between inquiries and the customer’s business activities;
- inconsistency between the technical properties of the items of interest and the technical capability of their country of destination;
- potential purchasers with little or no relevant business background;
- offers of abnormally favorable terms of payment;
- purchasers’ eagerness to acquire products despite unfamiliarity with the products’ properties;
- purchasers’ refusal to accept standard post-sales services, such as installation, maintenance, or training;
- inquiries that lack specific dates by when delivery is necessary;
- trading or transportation companies named as consignees;
- unusual transportation routes for export, or

- unusually remote destination; and
- use of postal address by purchaser.

2. CUSTOMS AND BORDER CONTROL PRACTITIONERS

The World Customs Organization

The effective implementation of UN sanctions depends in large measure on national customs agencies to exercise their absolute prerogatives to control goods and commodities traveling across international borders. In practical terms, customs and border controls benefit from the fact that an overwhelming percentage of goods and commodities travels by sea, rail, and air:

- in containerized or bulk form;
- through a comparatively small number of the world’s major ports, or megaports; and
- are subject to information exchanges, high-tech scanning, and surveillance.

For customs and border control the challenge to successful interdiction of WMD embargo violations comes down to a basic decision: which container should be referred to secondary inspection and its contents made subject to possible investigation.

The World Customs Organization (WCO) is answering this call with its SAFE Framework of Standards to Secure and Facilitate Global Trade. By the end of July 2013 it was formally adopted by 168 States. The framework is built around customs-to-customs and customs-to-business partnerships to enable four key requirements:

1. harmonization of advance electronic information requirements on inbound, outbound, and transit shipments;
2. commitment to a consistent risk management approach by each country participating in the SAFE Framework;
3. commitment to undertake outbound inspections of high-risk shipments with large-scale X-ray machines or radiation detectors on reason-

³⁷ UN Security Council, *Report of the Panel of Experts Established Pursuant to Resolution 1874 (2009)* (June 11, 2013), UN Doc. S/2013/337, para. 36.

³⁸ See also UN Security Council, *Final Report of the Panel of Experts Established Pursuant to Resolution 1929 (2010)* (June 5, 2013), UN Doc. S/2013/331, Annex VIII.

able requests of receiving ports/states; and

4. enjoyment of preferences by private sector parties who meet minimal supply chain security standards and best practices.

Harmonized Commodity Description and Coding System

One of the foundations on which these initiatives are built, is the Harmonized Commodity Description and Coding System. Developed by experts of the WCO, the “Harmonized System” (HS) describes in six-digit codes about 5,000 commodity groups. Each code reflects a tightly defined set of rules to form a legal and uniform classification structure. Because the system is used by more than 200 jurisdictions around the world for their customs tariffs and border control systems, virtually all international trade falls under its regulation.

Unfortunately, no register of HS codes for items prohibited under the UN non-proliferation lists exists. However, WCO has drafted a comprehensive Strategic Trade Control Enforcement Implementation Guide that may become available in the first half of 2014. The section for operational customs officers discusses techniques used to carry out the major functions that comprise the overall strategic trade control process and several related activities. In the context of WMD sanctions implementation, an annex to the implementation guide profiling many strategic goods and organized following the chapters of the HS will provide useful references from a customs and border control perspective.

Until this tool is approved and made publicly available, only broad descriptive guidance can be provided for the best use of the Harmonized System. Grouped by their initial four digits, the HS

Harmonized System Code Groups

2801 to 2942, 3601 to 3606, 3801 to 3824: inorganic and organic chemicals, biological, explosives and pyrotechnic products;

3901 to 4017: various plastics and rubber products that may often qualify under dual-use restrictions;

6902, 6906, 6909 to 6910: ceramic products;

7007 to 7008, 7012, 7014, 7017: glassware;

7608 to 7614: aluminum and aluminum alloy products;

8101 to 8113: many specialty metals that may be restricted outright or as part of the dual-use prohibitions;

8401 to 8418: nuclear reactors, fuel elements, boilers, turbines, engines, jets, pumps, air-conditioning, and furnaces;

8421: centrifuges;

8422: washing machinery;

8423: weighing equipment;

8459 to 8468: machine tools, machines;

8471: data process and computer equipment;

8480 to 8485: molding machines, valves, ball and roller bearings, transmissions, gaskets, and other machinery parts;

8501 to 8548: (most subgroups) electrical machinery, telecommunication and recording equipment that are either banned or are of significant dual-use interest;

8701 to 8716: vehicles and elements of vehicles;

8801 to 8805: aircrafts and space vehicles and subcomponents;

9001 and 9002: optical fibers and mounting devices;

9005 to 9033: sensitive photographic and other optical technical equipment, as well as measuring and navigation devices and their components;

9101 to 9114: time-measuring devices;

9301 to 9307: conventional arms, ammunition, and their components.

code groups in the box below can have WMD-sanctions relevance as they describe equipment, chemical and biological substances, and software identified under the official UN prohibition lists (See Annexes III, IV, and V).

Identifying Mismatches

The HS Coding offers a primary opportunity for flagging potential contraventions of UN sanctions. Sanctions violators by their nature will attempt to subvert, falsify, or betray this classification system in order to avoid detection. In a proper application, documentation for all international trade transactions reference the correct HS code for goods and commodities shipped. Customs officials around the world are therefore able to quickly identify possible problems, in particular by checking for mismatches between the HS code with information contained on other trade documentation, such as invoices, customs declarations, safety and health disclosure forms, or pre-shipping inspection reports.

Technological Solutions

In addition to the World Customs Organization's approach, highly advanced technological solutions may eventually assist in container screening systems at ports and port facilities, coupled with the use of smart seals for containers, that are also equipped with transponders and detection systems. However, with hundreds of millions of containers backing up in international trading lanes, it is clear that for the foreseeable future, even very effective technological detection and surveillance methodologies will cover only a fraction of the trade volume. Successful WMD proliferation networks will of course adjust to the buildup of detection systems at megaports and in the container technology by seeking alternative ports and detection-resistant strategies.

Diversions Strategies

As described under "Lessons Learned," sanctions violators take advantage of the following:

- the fact that restricted items and technologies are barely distinguishable from almost identical non-embargoed items;
- substituting restricted with unrestricted items and frequent use of transshipments to subvert catch-all provisions;
- false declarations;
- concealment of restricted items within legitimate bulk or containerized cargo;
- exploitation of weaker jurisdictions;
- transfers from ship to ship on the high seas;
- renaming or reflagging vessels during transit;
- and many other evolving methods and typologies.

Recommendations

Customs and border control practitioners, regardless of whether they represent governmental services or private sector compliance, should implement the following practices:

- Ensure that personnel dealing with customs and border control issues understand UN sanctions, know the UN lists of restricted items, and have adequate prohibited commodity identification tools, portable metal and alloy analyzers, and technical resources experts at their disposal, as well as an updated and accurate national "stop list" referencing all individuals currently under UN travel bans.
- Ensure that front-line customs and border control personnel have real-time access to competent WMD-proliferation expertise.
- Develop typology for likely illegal WMD proliferators and shippers of restricted items.
- Under the catch-all provision, consult export licensing authorities before allowing transport of potentially sensitive items if other red flags exist.
- Maintain accurate information about individuals and entities who have a history of declined export licenses for restricted items and equipment, except in cases involving dual-use technologies or items.
- Ensure timely receipt of advanced cargo information for all goods entering a destination or transit station to allow adequate time for risk analysis and assessments.
- Allow no mismatch in data reconciliation between customs declaration data with manifest details, load list, carrier list, discharge list, and cargo release document, commercial invoices, with matching harmonized codes, and with required data for each document as accurate as possible.
- Create trusted business partner programs to pre-screen frequent shippers of legitimate goods and commodities.

- Acquire the minimal set of WCO-recommended detection technologies and other capacity enhancements, and request, where required, assistance from the WCO, or from the UN's 1540, 1718, and 1737 panels of experts.
- Ensure operators of detection devices and WMD technical resource experts are well trained and subject to periodical competency and integrity vetting.

In case of an attempted or successful effort to subvert UN sanctions against WMD, contact relevant national authorities—usually law-enforcement agency—to report the identity of sender and recipient, shipping and customs broker, actual transport company, all payment-relevant information, documentation and nature of goods, commodities shipped, including identification and characteristics of packaging.

3. REGULATORS OF THE TRANSPORTATION SECTOR AND COMPLIANCE OFFICERS OF THE TRANSPORTATION INDUSTRY

First Line of Compliance: The Captain

In principle, a ship's or an aircraft's captain is responsible for the vessel, its cargo, and for ensuring that all operations on board comply with national and international laws, including UN sanctions. In practical terms, however, a captain often serves unwittingly at the pleasure of the consignors of cargo or ship owners who are far more difficult to identify and hold legally responsible. For maritime vessels, frequent changes of registrations under different flags, or for airplanes and ships, transfers of ownership to companies domiciled in jurisdictions that permit concealment of beneficial ownership, assist in subverting legal and financial liability. For these reasons, it is not realistic to expect a vessel's captain to ensure compliance with UN sanctions.

Identifying At-Risk Ships and Aircrafts

A different approach must be found to identify transport vehicles and vessels and transportation providers with a higher proneness to involvement with sanctions and embargo violations, as well as other illegal activities. Studies show how certain characteristics can offer useful risk categories:

- reliability of the official identification of a maritime or aviation vessel;

Reliability of the Official Identification of Maritime or Aviation Vessels

The lack of verifiable identification for a ship or an aircraft tends to signal a willingness by the owners/operators to engage in illicit activities, including the contravention of UN sanctions.

The international norm for ship and ship-owner identification is based on regulations adopted by the International Maritime Organization (IMO) according to which each vessel and owner and registered ship owner is assigned a permanent IMO identification number. The ship IMO identification number consists of the abbreviation "IMO" and a six-digit sequential number followed by one check-digit (see page 25 for public access to authentication system). The system permits authenticity verifications by multiplying each digit of the IMO in sequential order by 7, 6, 5, 4, 3, and 2. The last number of the result is added to the six core IMO numbers. Example: the Monchegorsk has IMO ID number 9404015; checking this number, one calculates 9×7 , plus 4×6 , plus 0×5 , plus 4×4 , plus 0×3 , plus 1×2 equals 105. Therefore, to the core IMO ID number 940401, number 5 is added, making the complete IMO ID number 9404015.

The registration of airplanes functions along similar principles. In accordance with the Convention on International Civil Aviation and with Article 20 of the Chicago Convention on International Civil Aviation, unique alphanumeric identifiers issued by national aviation authorities must be affixed on all civil aircraft. The number, colloquially referred to as "tail number," is composed of a prefix, which is the issuing country's call sign, and the registration suffix. The registration must be used for all financial transactions, flight plans, requests for overflight permission, maintenance, and transfer of ownership documents. Most jurisdictions maintain open registers that allow the identification of the owner of an aircraft based on the registration of the aircraft with the national civil aviation authority.

- compliance with international safety standards;
- national registration;
- type of ship; or
- distinction between regularly scheduled versus special use charters.

Compliance with International Safety Standards

Information gathered over many years of sanctions compliance monitoring, shows that airplanes and ships that frequently violate, disregard, or operate outside international safety standards tend to be more likely involved in UN sanctions violations.

The primary authority to monitor compliance with operational safety standards for both maritime vessels and airplanes lies with the registrant government. Often, the manufacturers of airplanes maintain maintenance logs as well. For the maritime industry, the International Maritime Organization Voluntary Member State Audit Scheme offers member states an assessment of how effectively they administer and implement mandatory IMO instruments. Jurisdictions that do not offer verifiable information about specific vessels' safety performance should be viewed as at-risk.

For the civilian airline industry, the International Air Transport Association (IATA) imposes periodic operational safety audits as a precondition for membership in this standard-setting international industry association. If an aircraft operator does not pass the audit, the IATA membership can be revoked. The consequences are that operating an airline outside of the IATA umbrella raises serious safety concerns and represents a significant compliance risk.

National Registration and Flags

A large percentage of maritime vessels are registered under so-called flags of convenience. A study by Stockholm International Peace Research Institute (SIPRI) indicates that ships sailing under such flags are disproportionately more likely to be transporting "destabilizing commodities," including embargoed equipment and goods.³⁹ Because of the high use of flags of convenience, their presence alone cannot be accepted as a risk factor more significant than for any other flagged vessel. Similarly, the national registration of an

airplane may indicate heightened risks only in the presence of additional factors. For example, the lack of detailed ownership/operator information should be accepted as a risk factor if it coincides with the owner taking full advantage of corporate shields provided by the registrant state.

Type of Ship

Following a SIPRI case study and analysis of interception reports, certain types of vessels are much more likely to be commissioned for the transport of sanctioned items. Container, refrigeration, and general cargo vessels appear to be the most likely carriers of embargoed items.

Distinction Between Regularly Scheduled Versus Special-Use Charters

State authorities license aircrafts or maritime vessels to operate as common carriers to offer specific and scheduled services to the public and private sector. In contrast, a contract carrier may refuse service to the public as it provides individual and unscheduled transportation services under contract to specific clients. According to their licenses, vessels operating as common or public carriers are usually subject to special laws and regulations. Monitors and investigators observe that common carriers are far less likely to be involved in the contravention of UN sanctions.

Recommendations

For captains, owners, and operators of airplanes, maritime vessels, and cargo brokers:

- Perform adequate due diligence for each consignor before entering into a shipping agreement. At a minimum, the due diligence steps should include the following:
 - 1) Ensure that all passengers are vetted against the UN list of individuals designated pursuant to UN Resolutions 1718 (2006) and 1737 (2006).
 - 2) Ensure that ultimate origin, destination, or trans-shipment points for consignment do not match with any of the states under UN WMD sanctions.
 - 3) Check identity of consignor, including vetting for being subject to any type of sanctions.
 - 4) Conduct verification of goods and commodi-

³⁹ Hugh Griffiths and Michael Jenks, "Maritime Transport and Destabilizing Commodity Flows," Stockholm: Stockholm International Peace Research Institute, January 2012, p. 15.

Table 3. Vessel configurations according to their likelihood of sanctionable and criminal involvement.⁴⁰

Vessel Configuration	Cargo	SIPRI Assessment of share of all ships over 100 gross tons reported as involved in destabilizing military equipment, dual-use goods and narcotics, averages for year 2000-2009 ⁴¹
Container vessel	Cargo is transported in 20- or 40-foot containers and may include refrigerated containers, if appropriately configured. These vessels sail usually according to schedules and serve as “common carriers.”	6.7
Refrigeration cargo vessel	Usually multi-deck cargo ship for the carriage of non-containerized refrigerated cargoes at various temperatures.	3.8
General cargo vessel	Carrier of various packaged goods and commodities including chemicals, foods, furniture, civilian and military machinery, engines and other components, which can operate with or without a fixed schedule, either as common or contract carriers.	2.2
Bulk carrier	Cargo vessel built for the carriage of bulk dry goods such as coal, grain, and ore and may be able to carry containerized liquids after the installation of additional external equipment.	0.9
Roll-on roll-off vessel	Single or multi-deck cargo vessel for the carriage of vehicles that are loaded via ramps.	0.8
Product tanker	Tanker for the bulk carriage of refined petroleum products.	0.5
Tanker	For the bulk carriage of chemical cargoes, lubricant oils, vegetable or animal oils, and other chemicals.	0.3
Fishing vessel	IMO-numbered fishing vessel over 100 tons.	0.3
Offshore support vessel	Single- or multi-functional offshore support vessel. Functions can include the transport of goods, stores, and crew to offshore facilities.	0.3
Tug	Vessel equipped with a towing winch to tow other vessels.	0.2

⁴⁰ Ibid., p. 23.

⁴¹ The sample size is 512 ships. For each vessel type, the figure on the right is the ratio of its share of reported incidents in 1991–2011 to its share of the world fleet in 2000–2009.

ties by at least matching Harmonized Codes with all other available and properly furnished customs, shipping, insurance, and commercial documentation.

- 5) Verify whether dimensions, weight, and other visible characteristics of goods and commodities match with common sense assumptions, and do not appear to qualify for a dual-use consideration.
 - 6) In case of doubt, request an inspection of goods and commodities and perform a visual verification, using reference for restricted items (see Annexes III, IV, and V).
- In applicable jurisdictions, be aware of the identity of individuals and entities whose applications to licensing authorities for export licenses for WMD-relevant and dual-use equipment were denied in the past. While this information in itself may not be a red flag—there are many innocent causes for denial of export licenses—it should be part of an appropriate due diligence prior to contracting shipping services.

For consignor:

- Verify the identity, history, and regulatory matters of the aircraft or maritime vessel and registered owner/company intended to be hired.
- For airplanes, authenticating the ownership and flightworthiness of an aircraft should be conducted prior to each transaction by requiring valid and current documentation issued by the relevant registering national agency.

The IMO site, www.imonumbers.lrfairplay.com, gives access to basic authentication data about the IMO Registered Owner or Company (DOC) number, and IMO Ship number. Alternatively, the non-profit organization, Equasis, financially supported by the maritime authorities of Japan, Singapore, Spain, and the United Kingdom operates a free website where the identity, ownership, history, inspection records of vessels, and registered ship owner can be verified, available at www.equasis.org.

4. REGULATORS OF FINANCIAL SERVICES, COMPLIANCE OFFICERS OF BANKS, AND FINANCIAL INTERMEDIARIES

Financial sanctions under the 1718 and 1737 regimes apply in two forms:

- An asset freeze for all individuals and entities that are listed under the DPRK Consolidated List of entities and individuals and under the Iran sanctions regime.⁴¹
- Another aspect of the financial sanctions applies against financial transactions, insurance services, or brokering of related services. If such economic activities enable the acquisition, supply, sale, manufacture, maintenance, use, or transfer and transportation of WMD-related items, materials, technologies, or services, they are not permitted under the 1718 and 1737 sanctions regimes.

Large international banks and financial service providers tend to be proficient in complying with the first aspect of the financial sanctions. This task is substantially supported with publicly available targeted sanctions lists and automated compliance tools that flag transactions involving a listed individual or entity. Government authorities, private sector compliance service providers, and to some extent Financial Action Task Force (FATF) recommendations offer competent guidance to the private sector to avert due diligence failures.

Compliance with the second aspect of financial sanctions is less well understood. In a nutshell: providers of insurance and financial services should have an understanding of whether their transactions and services facilitate the proliferation of WMD, in particular trade in restricted items.

The operative theory is that transactions will be suspicious because they take place involving at least one entity of an organization that is already under UN sanctions; or that they involve high-risk jurisdictions, such as Iran or the DPRK. Obviously, for these circumstances, the published UN-lists offer adequate information to any financial service provider to avoid transactions that might assist sanctions violators.

⁴² For the DPRK see "Consolidated List of Entities and Individuals," available at www.un.org/sc/committees/1718/pdf/List_Entities_and_Individuals_English.pdf and for Iran see "Individuals and Entities Designated as Subject to the Travel Ban and Assets Freeze Pursuant to Resolutions 1737 (2006), 1747 (2007), 1803 (2008), and 1929 (2010) and to the Committee Decisions of 18 April 2012 and 20 December 2012," available at www.un.org/sc/committees/1737/pdf/1737ConsolidatedList.pdf.

Lists of Restricted Commodities, Goods, and Technologies

The question of what are the compliance obligations arises if none of these recognized risk factors, or restricted WMD-relevant items, appears in a transaction. The FATF recommends that providers of financial services be familiar with the “nature of the trade,” which has to include the lists of restricted components, equipment, and technologies (see Annexes III, IV, and V). Financial services for such transactions may involve the issuance of a letter of credit and other forms of trade financing, export guarantees, insurances, or other indemnifications. Financial instruments might include cash, equities, debt financing, even derivatives to finance manufacturing, trading, or transportation of WMD-relevant items.

Activity-Based Sanctions

In support of sanctions against the financing of proliferation of WMD, FATF has adopted “Recommendation 7” and developed supporting guidelines in which the operational consequences of the term “activity-based sanctions” are explained.⁴³ Paragraphs 21–23 of the section entitled, “Enhanced Scrutiny of High-Risk Customers and Transactions,” provide important guidance regarding the obligation to understand not only the trading partners, but the nature of the trade:

21. Countries should encourage financial institutions to use a risk-based approach to apply enhanced scrutiny to high-risk customers and transactions to determine whether a transaction is prohibited. Such enhanced scrutiny may include the collection of additional information as described in paragraph 22 below, as well as ongoing monitoring as described in paragraph 23 below. If a financial institution has a reasonable basis to suspect or believe that a high-risk customer is involved with and/or a transaction is related to an activity-based financial prohibition, then the financial institution should take appropriate follow-up action as described in paragraphs 24 through 27 below. Enhanced monitoring should be consistent with OP 21 of

resolution 1929(2010), OP 18 of resolution 1874(2009), and OP 11 of resolution 2094(2013) that call upon countries to apply “enhanced monitoring to prevent all such transactions [described above] in accordance with their national authorities and legislation.”

22. Countries should encourage their financial institutions to collect additional information on high-risk customers and transactions in order to identify, and avoid engaging in, prohibited activities, and to enable follow-up actions. The ability of a financial institution to collect such additional information may depend in part on whether the financial institution has a direct relationship with the customer, the mechanisms or instruments being used to finance the transaction, and the financial institution’s role in the financial transaction. Depending on these factors, a financial institution may or may not have access to additional information that may be useful in determining whether a high-risk customer is involved with and/or a transaction is related to an activity-based financial prohibition. Such additional information may include:

- (a) details about the nature, end use, or end user of the item;
- (b) export control information, such as copies of export-control or other licenses issued by the national export control authorities, and end-user certification;
- (c) in the case of a financial institution handling incoming wire transfers, information in accordance with Recommendation 16 (Wire transfers); and
- (d) the purpose of the transaction.

23. Financial institutions should conduct ongoing monitoring of high-risk customer account activity. Such monitoring should be conducted in accordance with the financial institution’s assessment of risk associated with the account. Such monitoring should also ensure that the activity in the account is consistent with the documentation associated with the transactions in the account.⁴⁴

43 Financial Action Task Force, “The Implementation of Financial Provisions of United Nations Security Council Resolutions to Counter the Proliferation of Weapons of Mass Destruction,” Paris, June 2013, available at www.fatf-gafi.org/media/fatf/documents/recommendations/Guidance-UNSCRS-Prolif-WMD.pdf.

44 *Ibid.*, pp. 11-12.

Recommendations

- Be aware of individuals and entities that are currently listed for targeted financial sanctions (e.g., asset freeze) and travel restrictions (e.g., travel ban) under the 1718 and 1737 UN sanctions regimes.
- Identify monetary transactions, financial services or the rendering of fiduciary, brokerage, or insurance services on behalf of investors, beneficiaries, payees, or payers that are located in Iran or the DPRK.
- Identify any financial flow that involves restricted items or dual-use equipment under the 1718 and 1737 UN sanctions regimes, and prior to approving transactions, verify export licenses and end-use certifications.
- Consider individuals or entities who have been granted or denied export licenses of prohibited WMD and dual-use equipment to any and all destinations as a pertinent signal for increased due diligence before allowing financial services.
- Insist that clients furnish all required information or documents leading to financial transactions with adequate detail and accuracy.
- Maintain vigilant due diligence in relation to all client requests for transactions involving individuals with appointments to positions in government, military, security, state-research facilities of Iran or the DPRK and consider any resident individual or entity of these states as a heightened

risk.

- File suspicious financial activity reports for all transactions involving Iran and the DPRK for prohibited and restricted items.

SOURCES FOR FURTHER INFORMATION

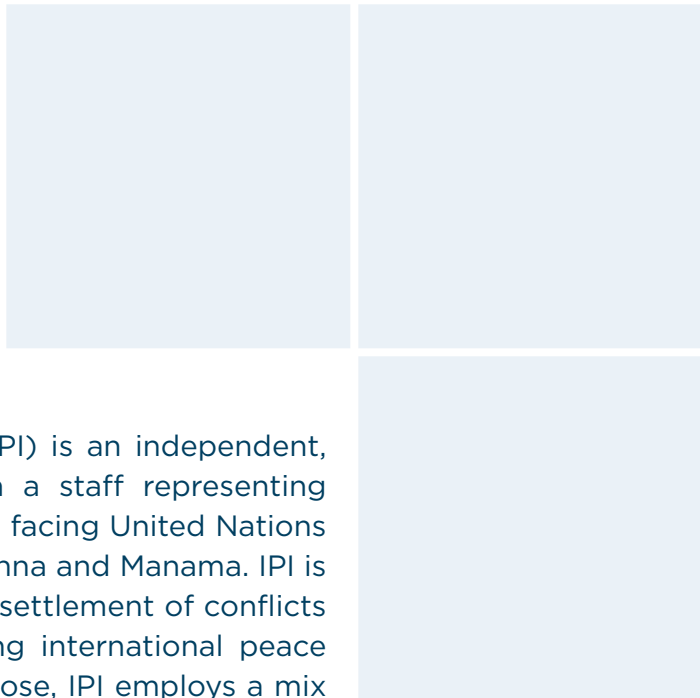
Some users of this manual may find themselves confronted with a sanctions implementation challenge that is not addressed here. For those with sanctions implementation responsibilities, including state regulators, representatives of international organizations, or compliance officers of the private sector, a primary source for information is their corresponding national focal point for UN sanctions.

Government officials may in some instances obtain guidance from the relevant sanctions committee or Panel directly or via the UN Secretariat. For this purpose, the UN publishes a list of contacts on its website, available at www.un.org/sc/committees/pdf/SCSOB_Secretariat_Contacts.pdf.

Some actors with sanctions implementation obligations may seek advice from specialized legal counselors and other private sector advisors. It should be noted that many international law firms that offer generalized sanctions advisory services are fluent only in the implementation policies of unilateral and EU sanctions. Careful vetting of such service providers should be conducted to ensure competent and up-to-date advice.

Annex

- I. UN Sanctions and Exemption Procedures: Iran
http://ipinst.org/images/pdfs/Annex1-UN_sanctions_on_Iran.pdf
- II. UN Sanctions and Exemption Procedures: DPRK
http://ipinst.org/images/pdfs/Annex2-Sanctions_on_the_DPRK.pdf
- III. Restricted Nuclear Goods, Commodities, and Technologies
<http://ipinst.org/images/pdfs/Annex3-nuclear.pdf>
- IV. Nuclear-Related Dual-Use Equipment, Material, Software, and Related Technology
http://ipinst.org/images/pdfs/Annex4-nuclear_dual_use.pdf
- V. List of Items, Materials, Equipment, Goods, and Technology Related to Ballistic Missile Programs
http://ipinst.org/images/pdfs/Annex5-Ballistic_Missile.pdf
- VI. List of Chemical and Biological Items, Materials, Equipment, Goods, and Technologies Related to Other Weapons of Mass Destruction Programs
http://ipinst.org/images/pdfs/Annex6-chem_bio.pdf



The **INTERNATIONAL PEACE INSTITUTE** (IPI) is an independent, international not-for-profit think tank with a staff representing more than twenty nationalities. It has offices facing United Nations Headquarters in New York and offices in Vienna and Manama. IPI is dedicated to promoting the prevention and settlement of conflicts between and within states by strengthening international peace and security institutions. To achieve its purpose, IPI employs a mix of policy research, convening, publishing, and outreach.

www.ipinst.org

www.theglobalobservatory.org



777 United Nations Plaza
New York, NY 10017-3521
USA
TEL +1-212-687-4300
FAX +1-212-983-8246

Freyung 3, 1010
Vienna, Austria
TEL +43-1-533-8881
FAX +43-1-533-881-11

51-52 Harbour House
Bahrain Financial Harbour
P.O. Box 1467
Manama, Bahrain