



Characteristics of DPRK Designated Individuals and Entities

1.1 INTRODUCTION

In an effort to reduce and eventually end non-proliferation activities conducted by the Democratic People's Republic of Korea (DPRK), the United Nations Security Council (UNSC) has issued targeted sanctions against specific individuals and entities (designees) believed to be, or are knowingly, committing these types of violations. UN member states and those organizations that fall under their jurisdiction (e.g., businesses, government agencies, citizens, etc.) are expected to enforce the UNSC sanctions. However, information to identify and track the activities of designates is often limited or difficult to detect. To help bolster state capacity to enforce UNSC sanctions on DPRK violators, it is useful to be aware of common characteristics or activities, including criminal activities and regulatory violations, shared by these groups as an additional means to flag for these or other potential sanctions violators. This case study examines characteristics common to designated individuals and entities under the DPRK regime, and provides potential recommendations for states and other interested parties to enforce sanctions on these and other potential violators.

1.2 METHOD OVERVIEW

A review of all individuals and entities (e.g., companies, organizations, agencies, etc.) designated under the DPRK sanctions regime was conducted examining reasons for listing, violations made, supporting information if available, and any assumptions that could be made in the absence of additional information.¹ Each violation was scored based on the quality of information supporting it, with higher scores given to UN and external reliable information (e.g., authoritative media reports). These data were then analyzed for patterns, such as common violations, common characteristics, strong and

¹ Refer to the list of designated individuals and entities under the DPRK regime (listed as KPi and KPe within the document) here: <https://www.un.org/securitycouncil/content/un-sc-consolidated-list>. Various formats available.

weak information, etc., as well as unique or potentially interesting observations. The results discussed in this case study are from those data that were considered substantial information of violations based on UNSC reports, meaning that the patterns reported here have high legitimacy.

1.3 FINDINGS

There are a number of common characteristics, both strong and weak, shared by the individuals and entities designated under DPRK sanctions. Less information is known about designated individuals than designated entities; yet, the two groups often have various formal and informal connections (e.g., employees of entities, having political oversight of certain entities, diplomatic liaisons, or through military divisions and agencies) and therefore some characteristics about entities can be extended to individuals.

1.3.1 INDIVIDUALS

The UN DPRK Panel of Experts and the Security Council have provided very little information as to why specific individuals have been targeted for sanctions, yet some characteristics are present. The most common characteristic shared by almost all individuals is that they work for a designated entity. Of the 80 designated individuals, there is no specific reason given for sanctions against 57 individuals other than they work for a designated entity. Designated individuals primarily work for banks or trading companies (46), followed by nuclear, aerospace, or weapons agencies (16), and then top tier government agencies (12, e.g., the ruling party, intelligence agency) (see Table 1). A handful of individuals represent DPRK government agencies in other countries, holding diplomatic status or are suspected intelligence operatives (4).

From the review, the types of positions held by designated individuals operating inside the DPRK are typically senior officials such as directors, presidents of companies, or government ministers. Each of these three internal DPRK areas are relatively equally sanctioned, between 12 and 14 individuals from each sector (Table 1). However, this differs substantially when examining sanctions on individuals operating outside of the DPRK. With the exception of four diplomats, 32 sanctioned individuals work for banks or trading companies. The majority of these individuals are described as overseas representatives, with a few described as Chief Representative. In order to conduct business on behalf of their employers, the designees are in violation of the travel ban.

Table 1: Type of organization that employs designees inside and outside of the DPRK

	Individual primarily working inside DPRK	Individual primarily working outside DPRK
Banks and trading companies	14	32 (1 impersonated a diplomat)
Nuclear, aerospace, or weapons agencies	14	2 (diplomats, both Syria)
Top tier government agencies	12	2 (diplomats, Egypt and Burma)

Designated individuals working outside the DPRK predominantly operate in China and Syria, and in the regions of North Africa and the Middle East (see Table 2). China makes a logical operational area for DPRK activity given its close proximity, its large, strong economy, and its relatively amicable relationship with the DPRK. All designated individuals operating in China work for trading companies or banking institutions,² and violations by the entities include trade in proliferation goods, financing proliferation activities, and financing other sanctioned entities conducting trade in proliferation goods. Several of the designees active in China are representatives of DPRK's Foreign Trade Bank, a state-run entity.³ The absence of representatives from the Korea Mining Development Trading Corporation (KOMID) operating in China is interesting. KOMID used to be known as one of the DPRK's exporters/importers of conventional arms, proliferation materials related to ballistic missiles, and general contractors for civilian and military construction projects. In terms of a single organization, the majority of designees operating outside the DPRK worked for KOMID.⁴

Table 2: States individual designees are active in and the companies they represent

² Individual designees 57, 59, 62, 64, 68, 72, and 77.

³ Foreign Trade Bank, see S/2018/171, paras. 162-165.

⁴ Designees working for KOMID operating inside the DPRK include 10, 11, and 22; while designees working for KOMID operating outside the DPRK include 17, 20, 24, 27, 30, 31, 33, 34, 36, and 56.

	Individuals primarily working inside DPRK	Individuals primarily working outside DPRK
Individual working in:		
China		7
Syria		5 (2 are diplomats)
Sudan		3
Vietnam		3
Iran		2
Russia		2
Egypt		1 (diplomat)
Libya		1
Burma		1 (diplomat)
Malaysia		1
Cuba		1
Multiple countries		10
Individual employed by:		
KOMID	3	10
Foreign Trade Bank	1	7
Tanchon Commercial Bank	5	5
Other trade or banking institutions	4	13

Instead, designees working for KOMID outside the DPRK conduct activities in less stable states including Syria, Iran, Sudan, and Burma. Syria is of particular concern in this context. These designees are chiefly sanctioned for conducting illegal trade in proliferation goods such as components for ballistic missiles (e.g., potential supplies for Syrian Scud missiles)⁵, while one designee is designated for conducting transactions to finance (banking) trade in weapons⁶. The designees trading in illicit goods work for KOMID or are diplomats for the DPRK Ministry of State Security conducting trade on behalf of KOMID.

Beyond Syria and other states listed in Table 2, a number of other states in North Africa and the Middle East serve as important areas of activity for designated individuals. Tunisia, Libya, Saudi Arabia, the United Arab Emirates, and other states are frequent locations for individuals to transit through or conduct transactions on behalf of designated entities.⁷

One unique observation of interest is the use of diplomatic channels to circumvent sanctions. In the case of entity #1, KOMID sometimes sent shipping documents (that describe the contents of shipped items for transiting through borders) via diplomatic

⁵ See S/2017/150, Table 8 in para. 206; S/2017/742, para. 28; S/2017/742, para. 29).

⁶ Individual designee 16.

⁷ For instance, see S/2018/171, Annex 43 and paras. 162-168.

pouch to their embassies in other states. This impedes border inspections in two ways. It causes significant delays in receiving appropriate documents because diplomatic pouches cannot be opened, and it prevents border agencies from inspecting the contents of shipping containers when they arrive as the documents were sent via another route.

In order to evade sanctions, a number of listed individuals modify the spelling of their names or use aliases.⁸ While it may be presumed that most or all individuals working primarily outside of the DPRK modify their names or travel documents, some modified spellings may also be due in part to translation differences between Korean characters and those of other languages.⁹

1.3.2 ENTITIES

In comparison to individuals, the UNSC has provided more information on the violations committed by the 75 designated DPRK entities. These entities have been listed for approximately 30 different types of violations. They range from very unique, regime-specific violations, such as using the sale of luxury goods to finance proliferation activities, to violations commonly seen across various sanctions regimes such as the sale and purchase of embargoed arms.

Similar to designated individuals, the majority of violations by designated entities relate to working with or being a part of another designated entity. This may not be surprising given that many entities have created front companies, altered the spelling of their names, or changed their operating names as a means to evade sanctions. Using an alias is the second most common illicit activity observed by entities listed by the UN. For instance, a number of designated trading and banking companies (e.g., entities 14, 15, 17, 24, 25, and others) use an alias for, are a subsidiary of, or are owned by the first designated entity, KOMID. Nonetheless, for approximately one-quarter of designated entities, the UNSC has not provided any evidence of them committing any other violation other than working with another designated entity.

For UN financial sanctions, the most common violations committed are by entities that facilitate asset freeze violations for other designated entities.¹⁰ The majority of these entities also facilitate financial transfers to facilitate embargo violations. Many of these entities have been found to use the Society for Worldwide Interbank Financial Telecommunications (SWIFT), the premier inter-bank payment facilitation network used

⁸ For instance, designees 16, 18, 19, 20, 25, 30, 74, and 80 are all considered to be using an alias or falsified documents in order to circumvent detection.

⁹ For instance, this may be the case with designees 51, 70, and 75.

¹⁰ For instance, see entities 14, 17, 23, or 33.

and owned by the world's major banks.¹¹ Once discovered, entities either remove themselves from SWIFT or SWIFT blocks their access to the system and blocks their accounts.¹²

In terms of embargoes, among the approximately three-quarters of entities for which the UNSC provides substantial evidence of a violation, the majority are under sanctions for one of three violations: trading in embargoed commodities, trading or facilitating the trade of embargoed material, and being responsible for, or involved in, the development of weapons of mass destruction (WMD). Those entities trading in embargoed commodities are almost entirely shipping companies and typically use physical methods of deception, such as changing or covering the names of vessels, as a means to evade sanctions.¹³ The commodities most frequently mentioned as being traded are petroleum/oil and coal. These entities also tend to indicate that their shipments are bound for Vietnam or Russia, but also Singapore and China (although some ships never reached their destination). At the time of writing, entities committing commodity violations do not appear to be flagged for violating any other sanctions. Most of the ships are DPRK-flagged vessels, and those flagged under other countries primarily come from the Caribbean region, namely Panama.¹⁴

Entities under sanctions for trading or facilitating the trade of embargoed material are much more likely to be committing multiple other types of violations.¹⁵ Most of these other violations appear to include the trade of arms and proliferation materials, but a few of these entities have also been shown to be directly involved in the development of proliferation materials.¹⁶ These entities are a mixture of government, trading, and banking agencies. Lastly, those designees responsible for, or involved in, the development of WMD are almost entirely DPRK government agencies, such as the National Aerospace Development Administration or the Second Academy of Science.¹⁷

¹¹ SWIFT does not transfer actual funds, but allows banks to communicate transfer details with each other when transferring funds. The code system used in SWIFT messages provides information on the bank, city, country and name of the individual or entity receiving the funds.

¹² For example, see entities 23, 33, 35, 45, 47, or 49.

¹³ See designees 10 and the most recent batch of designees, numbers 55 to 75.

¹⁴ Entities 55, 64, and 67 were flagged under Panama, entity 73 was flagged under St. Kitts-Nevis, entity 75 was flagged under the Dominican Republic, and entity 61 was flagged under Sierra Leone.

¹⁵ For instance, see entities 1, 4, 7, 10, 14, 17, 18,

¹⁶ For example, see designees 1, 7, 18, 21, and 44

¹⁷ See designees 1, 7, 12, 16, 18, 21, 27, 28, 29, 39, 44, and 46.

1.4 DISCUSSION AND RECOMMENDATIONS

From a review of the individuals and entities designated by the UNSC, certain patterns in the characteristics of violators can be seen and may be useful to states looking to better enforce sanctions.

Among individuals, the UNSC has clearly stated that those working for designated entities will be designated. For states looking to enforce sanctions or uncover violations, it will be useful to follow the activities of key individuals, especially those in a leadership position or those travelling or conducting business on behalf of a designated entity.

1. The activities of designated individuals appear to be particularly important in certain countries and regions. As a close major world financial power, China appears to be a key hub for financial activities of designated individuals. Furthermore, that no designees working for KOMID, the main government-run arms dealer, appear to be operating in China suggests that China may serve primarily as a financial trading area and perhaps source country for the procurement of sensitive technologies, and less likely as a hub for direct military trades. This seems supported by the observation that Syria and other less stable states are the main operational areas for all KOMID and other DPRK proliferation activities. The DPRK appears to be strategically using representatives of KOMID to conduct arms trade in less stable states.



To reinforce UN sanctions, member states should prioritize monitoring for arms trade in unstable or conflict-affected areas, especially by designated individuals, and to be monitored across various states in North Africa and the Middle East. These areas are either transit points or places of business for arms trade including by the DPRK. It is possible that some of these states lack the capacity or political will to monitor the activities of these individuals. Conflict-affected states, or those with weaker governments, appear to be a haven for DPRK activities. In particular, Syria, and to a lesser extent Sudan and Iran, appear to be important states of interest to the DPRK and seem to serve as key areas for its arms trade.

North Korean activities, specifically by KOMID, other North Korean conglomerates, or DPRK State Security representatives, including financial transactions, should be monitored in conflict-affected states.

3. The use of aliases and name changes appear to be an easy evasion tactic for DPRK-designated individuals, especially when translating to other languages such as English. Given that some designees are known to be using an alias or falsified documents, it may be useful to provide border and transit officials with not only aliases, but also possible common misspellings. Where software exists to scan for names, it may be useful to incorporate alternative spellings as part of the search algorithm. However, caution is warranted in that other criteria of these individuals should be made available at transit locations (e.g., the designee's employer) in order to ensure mistakes are not made with non-designated individuals.

UN members may improve efficiency and effectiveness of monitoring of designated individuals by providing their border agencies with lists of, or software programmed with, names of designated individuals, common misspellings, and additional identifying information.

4. With respect to entities, as with individuals, entities are primarily sanctioned for working with other designated entities. This may seem somewhat circuitous; however, it demonstrates the network of entities that the DPRK has developed. In other words, given the highly connected nature between entities, enforcing sanctions on one or more entities is likely to have an impact across several entities.

Since individuals appear to conduct financial business in China and trade and financing of arms and proliferation activities in North Africa and the Middle East, the entities for which they work are likely to follow similar patterns. As mentioned above, member states should consider assigning their resources accordingly.

Given the highly interconnected nature of DPRK entities, putting pressure on banks and trading organizations by reinforcing UN sanctions could be very useful in disrupting larger DPRK trade and financial networks.

5. A number of banks or trading companies were blocked by SWIFT, while a few opted to remove themselves once sanctioned. As SWIFT is not the only international messaging service for banks, other financial messaging services

Other inter-bank agencies that offer an alternative to SWIFT should be monitored for the appearance of activities by designated entities.

should be monitored to see if previous SWIFT entities have moved to facilitating financial violations through these other services.

6. Entities engaged in violating the commodity embargo using ocean vessels appear to be very homogenous, i.e., they are all DPRK shipping companies. Nonetheless, many alter or try to hide the names of shipping vessels. What appears to be common among these vessels is that they are DPRK-flagged, but sometimes flagged by other countries that may not scrutinize requests for their flags, such as Panama or Sierra Leone. These sanctions violators also appear to typically carry either petroleum/oil or coal and often indicate their destination as Vietnam or Russia, although they may never arrive at these destinations.

Member states should monitor for DPRK shipping companies operating primarily DPRK-flagged vessels, and specifically question operators about any recent re-flagging, regardless where they operate.

7. Entities trading or facilitating in the trade of embargoed items (e.g., dual-use materials, weapons of mass destruction, arms) also appear to commit a wide range of other violations. It is likely that states monitoring entities that are primarily designated for embargo violations may also be able to observe or track other violations.

Entities highly engaged in the development of WMD are almost entirely DPRK government agencies. States looking to enforce sanctions on these entities may find it helpful to monitor the movement and activity of government representatives of these designated entities, particularly those traveling as diplomats.

Overall, it appears there are a number of common characteristics of designated individuals and entities that states may find useful to be aware of in assisting their efforts to enforce UNSC sanctions. Nonetheless, it is important to note that these characteristics are based on Panel of Expert reports and other supporting evidence, and are therefore subject to any limitations of the original information. For example, other types of violations may be being committed, but the UNSC may not have yet identified or reported on these other issues. As such, states can use the above information as guidelines to common violator characteristics but must keep in mind that other violations may be occurring.

When monitoring entities designated for embargo violations, look for other activities in which these entities are engaged (e.g., financial transactions, activities with other designated entities, sending representatives to other states, etc.), as it appears likely that the one activity will be connected to other activities in violation of UN sanctions.

Annex

DPRK Individuals and Entities Discussed in this Brief

#	Individual	Affiliation	Nationality	Designation Date
10	Yo'N Cho'Ng Nam	Chief Representative for KOMID	DPRK	2013-03-07
11	Ko Ch'o'l-Chae	Deputy Chief Representative for KOMID	DPRK	2013-03-07
16	Jang Bom So	Tanchon Commercial Bank representative in Syria	DPRK	2016-03-02
17	Jang Yong Son	KOMID representative in Iran	DPRK	2016-03-02
18	Jon Myong Guk	Tanchon Commercial Bank overseas representative	DPRK	2016-03-02
19	Kang Mun Kil	Namchongang Trading Corporation overseas representative	DPRK	2016-03-02
20	Kang Ryong	KOMID representative in Syria	DPRK	2016-03-02
22	Kim Kyu	KOMID External Affairs Officer	DPRK	2016-03-02
24	Kim Yong Chol	KOMID representative in Iran	DPRK	2016-03-02
25	Ko Tae Hun	Tanchon Commercial Bank representative	DPRK	2016-03-02
27	Ryu Jin	KOMID representative in Syria	DPRK	2016-03-02

#	Individual	Affiliation	Nationality	Designation Date
30	Kim Song Chol	KOMID official	DPRK	2016-11-30
31	Son Jong Hyok	KOMID official	DPRK	2016-11-30
33	Ri Won Ho	DPRK Ministry of State Security Official stationed in Syria supporting KOMID.	DPRK	2016-11-30
34	Jo Yong Chol	DPRK Ministry of State Security Official stationed in Syria supporting KOMID	DPRK	2016-11-30
36	Kim Sok Chol	(Former) Ambassador to Burma, KOMID facilitator	DPRK	2016-11-30
51	Ri Jae Il	Vice Director of the Workers' Party of Korea Propaganda and Agitation Department	DPRK	2017-06-02
56	Jang Song Chol	KOMID overseas representative	DPRK	2017-08-05
57	Jang Sung Nam	Tangun Trading Corporation in China	DPRK	2017-08-05
59	Kang Chol Su	Ryonbong General Corporation representative in China	DPRK	2017-08-05
62	Pak Il Kyu	Ryonbong General Corporation representative in China	DPRK	2017-08-05
64	Ch'oe S'ok-Min	Foreign Trade Bank representative in China.	DPRK	2013-12-22
68	Kim Tong Chol	Foreign Trade Bank representative in Shenyang, China	DPRK	2017-12-22
70	Ku Ja Hyong	Foreign Trade Bank overseas representative	DPRK	2017-12-22
72	Pae Won Uk	Daesong Bank representative in Beijing, China	DPRK	2017-12-22
74	Ri Chun Hwan	Foreign Trade Bank overseas representative	DPRK	2017-12-22
75	Ri Chun Song	Foreign Trade Bank overseas representative	DPRK	2017-12-22

#	Individual	Affiliation	Nationality	Designation Date
77	Ri Song Hyok	Koryo Bank and Koryo Credit Development representative in China	DPRK	2017-12-22
80	Tsang Yung Yuan	Coordinated DPRK coal exports with a DPRK broker operating in a third country, other sanctions evasion activities	N/A	2018-03-30

#	Entity	Affiliations (owner, front company, partner, is owned/run by, etc.)	Designation Date
1	Korea Mining Development Trading Corporation (KOMID)	Second Economic Committee	2009-04-24
4	Namchongang Trading Corporation	General Bureau of Atomic Energy (GBAE)	2009-07-16
7	General Bureau of Atomic Energy (GBAE)	Government, Korea Kumsan Trading Corporation, Namchongang Trading Corporation	2009-07-16
10	Green Pine Associated Corporation	Reconnaissance General Bureau	2012-05-02
12	Korean Committee for Space Technology (KCST)	State Space Development Bureau, National Aerospace Development Administration	2013-01-22
14	Korea Kumryong Trading Corporation	KOMID	2013-01-22
16	Korea Ryonha Machinery Joint Venture Corp	Korea Ryonbong General Corporation	2013-01-22
17	Leader (Hong Kong) International	KOMID	2013-01-22
18	Second Academy of Science	Second Economic National Committee, Tangun Trading Corporation	2013-03-07
21	Academy of National Defense Science (ANDS)	Second Academy of Natural Sciences	2016-03-02
23	Daedong Credit Bank	Korea Daesong Bank owned by Mr. Li Zhengang (China)	2016-03-02

#	Entity	Affiliations (owner, front company, partner, is owned/run by, etc.)	Designation Date
2 7	Ministry of Atomic Energy Industry (MAEI)		2016-03-02
2 8	Munitions Industry Department (MID)	Korean Workers' Party Central Military Committee and Executive Policy Bureau	2016-03-02
2 9	National Aerospace Development Administration	Korean Committee for Space Technology, General Satellite Control and Command Centre	2016-03-02
3 3	Korea United Development Bank	Reconnaissance General Bureau	2016-11-30
3 5	Korea Daesong Bank	Office 39 of the Korea Workers' Party	2016-11-30
3 9	Korea International Chemical Joint Venture Company (KICJVC)	Korea Ryonbong General Corporation	2016-11-30
4 4	Korea Kumsan Trading Corporation	GBAE	2017-06-02
4 5	Koryo Bank	Office 38 and Office 39 of the Korean Workers' Party, Korea Myohyang Economic Group, Koryo-Global Bank	2017-06-02
4 6	Strategic Rocket Force of the Korean People's Army	Korean People's Army	2017-06-02
4 7	Foreign Trade Bank	State-owned	2017-08-05
4 9	Koryo Credit Development Bank	Office 38 and Office 39 of the Korean Workers' Party, Koryo Global Trust Bank, Koryo-Global Credit Bank	2017-08-05
5 5	Chang An Shipping & Technology	Registered owner, ship manager, and commercial manager of Panama-flagged HUA FU	2018-03-30
5 6	Chonmyong Shipping Co	Registered owner of DPRK-flagged CHON MYONG 1	2018-03-30
5 7	First Oil JV Co Ltd	Owner of DPRK tanker PAEK MA	2018-03-30
5 8	Hapjanggung Shipping Corp	Registered owner of DPRK tanker NAM SAN 8	2018-03-30
5 9	Huaxin Shipping Hongkong Ltd	Ship and commercial manager of Hong Kong-owned ASIA BRIDGE 1	2018-03-30

#	Entity	Affiliations (owner, front company, partner, is owned/run by, etc.)	Designation Date
60	Kingly Won International Co., Ltd	Tsang Yung Yuan (aka Neil Tsang)	2018-03-30
61	Korea Achim Shipping Co	Registered owner of DPRK-flagged CHON MA SAN	2018-03-30
62	Korea Ansan Shipping Company	Registered owner of DPRK tanker AN SAN 1	2018-03-30
63	Korea Myongdok Shipping Co	Registered owner of YU HYONG 5.	2018-03-30
64	Korea Samjong Shipping	Registered owner of DPRK tankers SAM JONG 1 and SAM JONG 2	2018-03-30
65	Korea Samma Shipping Co	Owner of DPRK-flagged SAM MA 2	2018-03-30
66	Korea Yujong Shipping Co Ltd	Registered owner of DPRK tanker YU JONG 2	2018-03-30
67	Koti Corp	Ship manager and commercial manager of Panama-flagged KOTI	2018-03-30
68	Myohyang Shipping Co	Ship manager of DPRK tanker YU SON	2018-03-30
69	Paekma Shipping Co	Registered owner of DPRK tanker PAEK MA	2018-03-30
70	Phyongchon Shipping & Marine	Registered owner of DPRK tanker JI SONG 6	2018-03-30
71	Pro-Gain Group Corporation	Company owned or controlled by Tsang Yung Yuan (individual #80)	2018-03-30
72	Shanghai Dongfeng Shipping Co Ltd	Registered owner, ship, and commercial manager of DONG FENG 6	2018-03-30
73	Shen Zhong International Shipping	Ship and commercial manager of St Kitts-Nevis-flagged HAO FAN 2 and HAO FAN 6	2018-03-30

#	Entity	Affiliations (owner, front company, partner, is owned/run by, etc.)	Designation Date
7 4	Weihai World-Shipping Freight	Ship and commercial manager of XIN GUANG HAI	2018-03-30
7 5	Yuk Tung Energy Pte Ltd	Ship and commercial manager of YUK TUNG	2018-03-30

	<p>Shawna Meister - CCSI Senior Contributor</p> <p>A research and policy analyst, Shawna Meister has worked with CCSI since its establishment on various projects for the past eight years. Her background includes analyzing the role of United Nations (UN) sanctions in overall conflict resolution efforts, civil war in Africa and the Middle East, and enforcement challenges with nonproliferation sanctions. Recently, as part of CCSI's typology research initiative, Shawna has led the analysis of characteristics and activities of designated individuals and entities to identify patterns and links within and across sanctions regimes. She has produced numerous publications including authoring analytical and technical reports, case studies, journal articles, and has contributed to all books and nonproliferation manuals CCSI has released. Shawna's skills include multi-scale research project management and transforming complex information and analyses into useable products such as training guides, educational manuals, public tools and resources, and websites.</p>
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