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Transparency: Nuclear Weapons and Fissile Material

Report of a Workshop

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The Proliferation Prevention Program hosted an experts' workshop on transparency measures for nuclear weapons and fissile material on February 13, 2017, at CSIS headquarters. The findings reported here represent some of the key points from the meeting. Top experts who have produced public estimates of nuclear weapons and fissile material stockpiles for decades discussed some of the challenges and opportunities in developing those estimates with consumers of the analyses. The experts explored what we know, how we know it, and how to move forward to improve the estimates. They laid the groundwork for clearer definitions and goals of transparency from governments, the benefits and risks of such transparency, and policy approaches to coax greater transparency from states that possess nuclear weapons.

Key Findings

- Transparency (the voluntary release of information previously kept confidential) about nuclear weapons and fissile material is essential to fostering greater accountability in nuclear weapons programs. Accountability plays a role in reducing the risks of nuclear arms races, accidents, and the possibility of terrorists getting their hands on fissile material. This should be weighed against the roles of transparency in enhancing strategic stability or regional security, as well as disarmament.
- Government declarations and civil society estimates are both integral to building a norm of greater accountability. Where no government declarations are forthcoming, civil society estimates can create a basis for public discussion and generate pressure on national policies. Where governments have declared information, civil society estimates can help confirm, corroborate, or check official statements.
- Both avenues for transparency vary widely among the nine countries known to have nuclear weapons. The United States has released and vetted the most information about its nuclear weapons and fissile material stockpiles. Arms control agreements provided a legal basis to exchange information, and the end of the Cold War allowed further transparency

declarations. Of course, the United States has a culture of openness and accountability, including making significant information available publicly (e.g., environmental) and granting access to government officials. Russia, China, India, Pakistan, Israel, and North Korea are officially much less transparent. In the United Kingdom and France, governments have released information, but there are few avenues for public confirmation, and in France, there is little public dialogue or focus on nuclear weapons.

- Still, U.S. openness seems to have helped analysts uncover data in other countries about nuclear weapons programs and fissile material production.
- For those outside governments making estimates, computing and satellite technology, including the ability to share information on the Internet, have vastly improved the quantity and quality of open-source information. The analysis, however, still needs to be done by, with, and for people.
- Consistent methodology over time is more important and attainable than precision in public (and perhaps in government) estimates. Public data can help show trends and changes over time. In particular, understanding the uncertainties in data can help target resources.
- A “wish list” for better information from governments would include:
 - Dismantled weapons: Would a collaborative verification experiment on this yield important information for future verification efforts?
 - Reactor production: Could a nuclear archeology project help determine how much plutonium a reactor actually produced?
 - China: Numbers of missiles overall or planned for deployment.
 - Russia: Release the New START data within Russia.
- In Russia, attitudes reinforce secrecy over transparency, aided by recent secrecy laws, but past collaborative efforts (e.g., in the context of arms control agreements like New START) could possibly be leveraged.
- Transparency is a means to an end, such as strategic stability, regional security, or disarmament. Both civil society and governments must consider how releasing certain kinds of information affect attainment of potentially conflicting objectives. This calculation will clearly vary by country.
- The nine states with nuclear weapons have different attitudes about transparency, different motives for secrecy, and different international obligations. Bridging those gaps will be challenging for promoting a global norm of greater accountability. In particular, the divide between states inside and outside the Nuclear Non-Proliferation Treaty (NPT) is wide; transparency objectives and approaches as promoted within the NPT review process are

not likely to be embraced by states outside the NPT. The participation of India and Pakistan could be crucial to the sustainability of any future norm.

- Specific actions to improve transparency efforts within civil society include: training the next generation of analysts, including tapping into other next-generation efforts in the nuclear area (e.g., in safeguards, security, and industry); making information freely available (i.e., not behind paywalls); collaborating to pool resources for analysis; and providing selected journalists with tools to report on these issues (e.g., two- to three-day training workshops).
- Specific actions to increase prospects for and implementation by governments of transparency measures include: building on existing efforts, including new START and continuing the P-5 process, perhaps even enhancing the common glossary of terms; identifying country-specific rationales to support transparency for national security reasons; and incorporating military voices in support of transparency, perhaps on the basis of cost and efficiency.

Background

Within an overall landscape of secrecy, the body of publicly available information about nuclear weapons arsenals and fissile material stockpiles has grown, in no small part because of the efforts of experts outside government. They have used a variety of information sources to make their estimates, including arms control agreements (like INF, START and New START), budget data, environmental data, unilateral government statements, declassified documents (primarily in the United States and United Kingdom), leaks of classified information, defector statements, and remote monitoring technology, to name a few.

The consistency of these public, unofficial estimates over time has helped defuse some of the worst-case scenarios that tend to flourish in the vacuum of secrecy. What is more, the interplay between official and unofficial estimates has, arguably, enhanced accountability of nuclear weapons programs in a few key states. The monopoly on information that governments traditionally have wielded has diminished in some cases. On the government side, the availability of information has increased over time, although not in a linear fashion. Public estimates have benefitted over time from the release of classified information by one government about another government. Paradoxically, as enmity decreases between countries (e.g., U.S.-Russia; U.S.-China), there may be less of this kind of information released to the public for political reasons. In light of this, it would be useful to create norms of transparency and accountability that survive even welcome political transitions.

Why are public estimates of nuclear weapons/fissile material necessary?

1. There will always be estimates in the public domain. If government declarations are not available, according to one expert, the public will fill the gap with its own information. "There is nothing that [the] community loves more than the absence of information." This puts a premium on consistent efforts over time to help refute worst-case estimates or scenarios.

2. *Without some publicly available information, it is hard to discuss policy.* Although these public estimates are generally done to further research in the field, there are obvious policy implications. The point about these estimates is not whether they are 100 percent accurate but whether they are consistent enough over time to show trends and capabilities. Where government information is released, it is possible to target the policy debate more specifically about the roles of nuclear weapons and trends, including sufficiency in the stockpile.

3. *When information is released from governments, public estimates can help provide confirmation in the absence of verification.*

4. *Accurate public estimates can provide a pressure point on governments to be more transparent and engage in debate.* In the United States, the public debate was getting so close to the real numbers that continued classification did not make sense.

How has transparency by governments about nuclear weapons and fissile material shifted over time?

Governments may become more or less secretive over time, but the progression is not always linear. Sometimes, changes in laws can release or restrict information, but policy changes can also affect the relative flow of information. For example, information about Russia's fissile material production was relatively more open in the 1990s as a matter of policy. Today, the default position in Russia is to keep information classified.

Unspoken assumptions can lead in different directions. Assuming secrecy is the norm, articulating reasons to declassify information can be difficult. Despite this, the release of information over decades by the United States has not resulted in increased security risks. Even countries with few facilities, where releasing information about those facilities could put material at risk, have been willing to disclose information. On the other hand, if transparency is the baseline, articulating the reasons to keep information classified can be difficult. More broadly, one expert noted that transparency is not the ultimate measure of a country's commitment to disarmament; in that view, perhaps having fewer weapons or a nonthreatening nuclear posture is more important.

What are the roles and objectives of transparency?

Transparency is a means, not an end, pursued with the intention to promote strategic stability and/or regional security and/or to lay the groundwork for disarmament. Going forward, there may not be immediate rewards for governments being transparent (e.g., despite U.S. declarations, pressure and criticism of U.S. nuclear weapons persist), but it does make a difference down the road as we get closer to zero, or even to verify future holdings. The more that is declared now, the more established a paper trail becomes and potentially the less intrusive the inspections will need to be. Civil society may need to explain why transparency matters.

For the nuclear weapon states under the NPT, transparency is a means of showing progress in meeting their disarmament obligations under the treaty (i.e., Article VI, to pursue good faith efforts toward general and complete disarmament). For states outside of the NPT regime,

transparency can aid in bilateral or regional security arrangements, play a role in strategic stability between India and Pakistan, and potentially gain international goodwill by adopting nuclear governance responsibilities similar to those adopted by NPT nuclear weapon states.

Potential leverage points for further transparency by governments

1. Transparency as a cost-savings mechanism: Classification is very expensive to maintain in a bureaucracy. Moreover, transparency by one's competitor can help avoid needless spending or overreactions to capabilities that may not exist.

2. Transparency activities between United States and Russia could be cheaper than arms control and cheaper than a massive buildup: Although the Trump administration is committed to increasing defense spending by 10 percent or more, the reality is that there is not enough fat in the U.S. budget to find those funds from elsewhere without running up a huge deficit.

3. Other governments, particularly if the convention to ban nuclear weapons fails substantially, may look to transparency as a "fallback" option. Regardless, government declarations will be necessary for any effort moving forward to reduce and eventually eliminate nuclear weapons.

4. Some transparency measures may be appealing to the Trump administration since they can be done via an executive order and without vetting from Congress. For example, President Trump could propose an agreement with Russia to take warheads off high alert. This would have the added value of indicating that Trump's willingness to do business with Russia has had an immediate payoff in relaxing the nuclear relationship between the two countries.

Potential elements of establishing a new norm of transparency

1. Carefully consider what is required to inform and power a public debate about factual information related to nuclear weapons. The March convention on banning nuclear weapons may provide some insights here or highlight what should be avoided.

2. A political strategy to influence governments to take certain actions. Certainly countries that have promoted transparency in the past have considered strategies in their bilateral or multilateral meetings to push other governments to report within the context of the NPT. Nongovernmental organizations could collaborate to do this as well, but using public mechanisms.

3. Standardized reporting could be an element, but the Non-Proliferation and Disarmament Initiative (NPDII) approach is too detailed and fails to consider individual country assessments of the balance of secrecy and transparency. A norm of transparent behavior could be another approach.

4. Clearly define the reasons for government transparency, including national security purposes.

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