# United Nations Security Council Resolution 1540 at the Crossroads: The Challenges of Implementation

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### Introduction

n October 1, 2009, The Stanley Foundation organized a major "civil society" session, "Resolution 1540: At a Crossroads" at UN Headquarters in New York City, to make a contribution to the official Comprehensive Review of the Status of Implementation on Resolution 1540 conducted by the members of the 1540 Committee from September 30-October 2, 2009. The event was cosponsored by the UN Office for Disarmament Affairs and co-organized by the Arab Institute for Security Studies, Fondation pour la Recherche Stratégique (FRS), NPSGlobal Foundation, The Stimson Center, The Verification Research, Training and Information Centre (VERTIC), Institute for Security Studies, Stockholm International Peace Research Institute, and the World Institute for Nuclear Security.

For maximum impact and sharing of ideas, the organizers invited the 1540 Committee's members and experts to attend the session presentations. The organizers also invited several organizations around the world and in the United States to submit papers and designate representatives as panel presenters during the session. The event was opened by formal remarks from the Chairman of the 1540 Committee, Ambassador Urbina of the Mission of Costa Rica to the United Nations.

This NGO (nongovernmental organization) report summarizes the main conclusions, recommendations, findings, and arguments that were given during the four panel sessions of the side event. All submitted papers are available on the web at *www.stanleyfounda-tion.org/1540*, and the final event agenda, with full names of panelists, their affiliations, and panel formats are included in **Appendix I**. The event was broken down into 1540 interpretation and implementation at the *global, regional, national, and civil society levels*, with multiple statements, arguments, and solid recommendations given for each "level" of the operating environment within which 1540 must be considered and executed by UN member states.

# **Executive Summary**

The primary threat of catastrophic or "mass casualty" terrorism today does not come from traditional state-supported terrorism, as was prevalent during the Cold War, but rather, via wholly transnational, substate, and nonstate "armed bands" using advanced information technology to coalesce in ideology, goals, and missions that are not beholden to the usual geopolitical agendas of states. Given this nature of the global problem, what is more useful in meeting the true "operating environment" of 1540 implementation?

### Building Capacity for 1540 Implementation at the Global Level: Generic Goals

Panelists offered up the following list of relevant generic functional capabilities, which need to be built up across the world via coordinated intergovernmental organization (IGO), national, and civil society actions toward capacity building:

- Common assessments of specific weapons of mass destruction (WMD) proliferation risks at the national, regional, and global geopolitical levels, so as to create locally-tailored threat assessment.
- Increased cooperative efforts to bring publics, governments, and industries in a specific locality "on the same page" in terms of mutual understanding of threats and practical responses.
- Timely, tailored expertise in developing legislation, regulations, and best practices.
- A process-driven (rather than strictly outcome-driven) approach that starts with initial "1540 action plans" and goes forward with constant, flexible assessment and incremental increases in capacities for enforcement.
- In line with the above: developing criteria and standards for compliance by performing an ongoing "gap analysis" in normal governmental activity in the areas of domestic law enforcement; public health measures; export controls; capacities for detecting unusual trade, monetary, or human network patterns; and so on.
- Education and training programs that have some commonalities between different regional or subregional contexts, but also have in-built differences, according to the circumstances at hand—one prominent example being the "International Export Control Association" developed by the NGO Center for International Trade and Security or CITS, which has worked with, or in, 75 different countries across the former Soviet Union, the European Union (EU), South and Southeast Asia, North Africa, and Latin America.

### Building Global Capacity and Countering Threats in the Nuclear Area

In the nuclear area specifically, the 1540 Committee, regional IGOs, individual governments, industries, and civil society groups should strive toward:

- Close work with the nuclear industry itself to "educate" them on the fact that the word "security" or "national security" is no longer simply the duty, role, and providence of states but, in fact, should become an embedded, routinized, and ingrained working-level goal of private sector actors, just as such private nuclear industry actors already have been tasked to internalize and push forward environmental and safety standards and assessment processes in their normal profit-loss equations.
- States from the developed and developing world alike should work together to ensure, once and for all, verifiably strong and effective security and safety measures for all highly enriched uranium (HEU) and plutonium (Pu), full stop, and especially HEU that could be used to make a "gun-type" crude fission device. Such materials must be secured no matter the country in which they exist, whether an ally or a competitor.

### Building Global Capacity and Countering Threats in the Chemical and Biological Areas

In the area of chemical and biological weapons (CBW), as a core defensive and preventive measure, the 1540 Committee, regional IGOs, private industry, national governments, and civil society should strive toward:

- The buildup of effective, resilient, and well-funded *public health systems*, including prevention and response infrastructure and national coordination with the World Health Organization.
- The institution of contextual risk assessment and risk mitigation methodologies across all areas of WMD, but especially in regards to the biological era, where "a bug is a bug," in terms of diseases having potentially catastrophic effects regardless of their origins—therefore requiring a shared local assessment of biological risks that encompasses the gamut of events, from unforeseen collateral negative effects of state or private research activities, to unforeseen accidents (an accidental "leak" from a lab), to "normal" disease outbreaks, to military activities and illicit activities by extremist groups.

In the biological or "life sciences" area, the following guidelines should be followed by private industries, NGOs, national governments, and IGO actors in starting up new processes for 1540 implementation based on new modes of risk assessment and risk mitigation:

• Biological risk must be assessed holistically across the whole spectrum of risk.

• Creating a single, uniform methodology for assessing biological risk would be challenging, but worthwhile, in terms of national and international policymaking, resource allocation, cooperation, and the spread of best practices. Given the different nature of the risks across the risk spectrum (natural, unintended, intended) and the differing availability of historical data against which to derive or test mathematical models, a new methodology may have to employ a range of models coupled with an overarching model to unify the resultant risk assessments.

With these points in mind, the next logical step in the area of life sciences and biosecurity would be:

- A commissioned paper that reviews risk assessment methodologies currently deployed in a number of geographically representative countries to assist in (a) the analysis of best practices, (b) understanding how and why existing methodologies diverge, and (c) identifying the elements upon which a new, internationally uniform biological risk assessment methodology can be developed. This latter paper could be published as a monograph and circulated to policymakers in countries that would need to cooperate on mitigating and managing biological risk for such actions to be optimally effective.
- A Track 2 forum should be created to *initiate a high-level, international dialogue between those countries where coordination of biological risk management and mitigation efforts would have greatest global impact.* The aim of this dialogue would be, initially, to obtain a common understanding of the biological risks to which society is exposed and agreement that a common approach to assessment of this risk would be worthwhile. Ultimately, the aim would be to institute regular meetings of the group to share biological risk assessments and to coordinate risk management and mitigation measures across national boundaries.
- In sum, for the area of the life sciences and biosecurity, the 1540 IGO, NGO, governmental, and industry communities should strive toward:
  - The publication of a clear report in plain English which fully describes state-of-theart biological risk assessment and which can be used immediately to move forward to a better, more harmonized approach to this important issue.
  - A new mechanism for key countries to coordinate national and international biological risk assessment, management, and mitigation.
  - Cross-sectoral learning vis-à-vis risk assessment methodology and practice, with the hope of a new, better risk assessment methodology with widespread application in many fields of human endeavor.

### Creating Win-Win Scenarios:

### How Rule of Law, Development, and 1540 Implementation Cross Paths

A final reality is that large monetary sums are involved if a fringe group (Al Qaeda or other) tries to smuggle, buy, and weaponize vulnerable nuclear materials. Large sums are especially relevant for *procuring* nuclear materials illegally, prior to crude weaponization by a nonstate group.

In turn, this raises the question: where does such "big money" come from, and how is it used as investments to create even more funds, in terms of the modus operandi of wealthy nonstate or transnational terror groups? Answers include: illicit drugs, guns, people trafficking, investment in legitimate companies through intermediaries, bribery or blackmail of officials, and other forms of criminal activity and corruption that take place in and around "fragile environments" around the globe. Therefore:

- Illicit WMD proliferation can no longer be separated from transnational crime, illicit trafficking, and the violent and criminal consequences of the "negative underbelly of globalization" in general.
- Hence, the problem and theme of national and global corruption will always be there, and should be viewed as a potential target of 1540.
- However, in pursuing 1540 implementation via capacity building in the developing world, there must be a shared understanding among individual states, regional organizations, global IGOs, and civil society groups that the goal is to increase WMD risk mitigation and management capacities while increasing economic trade flows, legitimate financial flows, human labor flows, and overall opportunities for development and prosperity.
- Rather than seeing these two broad, increasingly globalized processes as "either/or," they should always be viewed as "both/and" through the building up of the human dimension of security via the spread of an embedded "security culture" in both private industries and governments, based in part on legal and technical aid in creating agreed local legal and regulatory frameworks for action that involve civic, scientific, commercial, and government capacities in the country concerned.
- In this regard, the "both/and" approach to prosperity and security under the 1540 mandate should focus on the triple nexus of transnational nonproliferation and counterterrorism goals, national development goals, and internal and international efforts to stem the increasing tide of the global illicit economy and its violent offshoots, the latter of which can create smuggling routes, money, and expertise for extremist groups intent on mass casualty violence.

- This "triple nexus" already provides the basis for successful regional and national reporting from the Caribbean and for new, unprecedented requests from the Caribbean region for capacity-building assistance from the UN 1540 Committee process.
- In all of this, however, it is advisable to take a "light footprint approach" by adopting the more focused lessons from successful post-conflict reconstruction efforts that have helped states take ownership in narrow, well-defined areas of progress. This means, in essence, targeting a "strategic entry point" in a given country to promote development and nonproliferation simultaneously.
  - One such example is ongoing international support for "legal reform capacity" in many post-conflict states, as well as issues such as natural resource governance where corruption could be involved. For instance, in Sierra Leone, diamond control is as important as more direct, traditional nonproliferation efforts because profits from illicit diamond mining and smuggling could be used to fund extremist groups with transnational goals of mass casualty terrorism.
- Thus, efficient "niche" measures should be put in place quickly and opportunistically, building on existing international aid programs and existing nascent capacities in the recipient state, and in doing so, developing and expanding the pools of states that can act in collaboration toward these well-defined, incremental, and focused goals.
- In such efforts, a flexible process is desirable, bringing on as many actors as possible, including from domestic civil society in the recipient state.
- Finally, the international community could do more to publish information on successes in implementation to encourage skeptical states to take part in implementing 1540 goals.

# **Conference Report**

### The Global Operating Environment: Threats, Challenges, and Opportunities

The primary threat of catastrophic or "mass casualty" terrorism today does not come from traditional state-supported terrorism, as was prevalent during the Cold War, but rather, via wholly transnational, substate, and nonstate "armed bands" using advanced information technology to coalesce in ideology, goals, and missions that are not beholden to the usual geopolitical agendas of states.

Due to the flexible, dynamic, transnational, and networked nature of this threat, as well as the economic realities of globalization (in which customs, trade, and monetary barriers have been reduced in favor of commercial and economic gain), traditional "technology denial" methods, as seen in the case of various coalitions such as the Australia Group and the Nuclear Suppliers Group, are increasingly outmoded and ineffectual. Rather than technology denial, what is required is *technology governance*.<sup>1</sup>

In pursuit of technology governance, traditional methods such as customs capabilities and export controls still have a large place in preventing acquisition of the materials and knowledge necessary for nonstate groups to carry out a mass casualty event. However, such traditional capabilities now increasingly have a new focus: tracking illicit networks and illicit activities in "fragile environments"<sup>2</sup> rather than focusing on cordoning off and containing a particular strong state such as Iran.

This said: as a first "stepping stone" toward buildup of state capabilities for implementation of 1540, the implementation of extant provisions in multiple UN Security Council resolutions on the DPRK and Iran would, in a de facto sense, put in place many of the tools and human capacities across the globe that would be needed to ensure effective preventive action toward nonstate groups. Indeed, the extremely similar nature of actions for state enforcement stipulated in these latter resolutions-which include questions of transit and trans-shipment points as well as *financial aspects of WMD programs*—show a growing appreciation of the technical, on-the-ground, concrete actions necessary to prevent proliferation of WMD in a globalized world. In addition, leveraging these sanctions resolutions requires a baseline export control system be put in place-something that would inherently be a huge boon to the efforts to combat completely nonstate threats under 1540 requirements. Further, the 1540 Committee is engaging in information sharing with the Iran and DPRK sanctions committee, based on reports submitted by member states toward the goal of 1540 implementation. Finally, providing assistance to countries to implement traditional sanctions regimes has been very difficult, and has often been bilateral in nature, while a new, more multilateral context for provision of assistance in areas such as improved export controls and customs might help some countries quell both diplomatic and domestic sensitivities.<sup>3</sup>

Nonetheless, there is still little agreement among member states on the nature and severity of the transnational terrorist threat; there is extremely uneven institutional capacity among member states for 1540 implementation; there is a lack of legal-regulatory harmonization; and there are insufficient resources at this point for coordination of assistance.<sup>4</sup> Moreover, there is legitimate concern that implementation of new controls (monetary, customs, and so on) will retard economic growth and prosperity rather than allowing development. To alleviate these difficulties, private actors (NGOs, think tanks, private industry groups or associations) have already been doing what they can with relatively limited resources to aid states in capacity building in key sectors.

For capacity-building activities that take place under the aegis of the 1540 mandate, all states in the UN context must be aware of a central fact: there is no "one size fits all" approach. Geopolitical, spatial, and domestic realities differ according to history and location. Therefore, any attempts to enforce top-down "standards" of a universal nature will prove to be too rigid, inflexible, ineffectual, and unfair. Instead, what is needed is a focus on *performance* according to *cooperatively developed but "local" criteria for implementation and action*. Political will of states should not be measured by enforcement of common global standards, but rather, for their actions in working with the 1540 Committee, the International Atomic Energy Agency (IAEA), a bevy of NGOs and industry groups, and their own citizens in developing sensible, flexible, and timely capabilities for thwarting illicit activities that could contribute to nonstate, catastrophic terrorism.<sup>5</sup>

In pursuing such tailored and flexible responses, there must be a basic understanding that radiological, nuclear, chemical, and biological threats come from very different social and technological bases. Radiological attacks can create mass panic but, in fact, have a scientifically proven low probability of leading to deaths or even long-term cancer, so education of the public may be the primary goal. Nuclear fission devices, in contrast, are so potentially catastrophic in effect that prevention of even one attack must be the goal of 1540 implementation. Moreover, nuclear materials are themselves hard to produce (and HEU is probably impossible for a nonstate actor to produce), which means that such groups must steal or illicitly acquire HEU, which remains very much an "esoteric" commercial good.<sup>6</sup> In the chemical and biological areas, by contrast, the materials and devices used to produce a weapon are so similar to "normal" commerce and scientific activities that total control is undesirable from a trade standpoint, and in any case, the ultimate effects of chem-bio attacks, unlike with nuclear fission attacks, can be limited, contained, mitigated, and diluted, based on the buildup beforehand of broad civil disaster and public health capacities.7 Thus, nuclear fission attacks require strenuous efforts at prevention, centered on controlling, monitoring, or disposing of the most likely nuclear materials that could fuel a crude "gun-type" nuclear bomb (HEU), while chem-bio attacks require strenuous efforts to build up reactive capabilities within and between disparate societies.

For achieving these ends, traditional arms control, disarmament, and nonproliferation bureaucracies—built up largely during the Cold War and the 1990s—are not structured nor tasked to be effective front-line actors in 1540 implementation. The reason is that arms control itself is based squarely on traditional questions of state-based military power balances and maintenance of a stable military status quo between states. In addition, traditional arms control, disarmament, and nonproliferation, as seen in the "three-legged stool" of the Non-Proliferation Treaty (NPT), is based on inflexible, universal, ironclad, and topdown standards, which goes against the points noted above. The military and state-based, "strategic" focus of arms control and disarmament is still very important for ensuring global security and stability, but it is much different from the evolving threats now posed by the nexus of illicit transnational economic activities and violent nonstate extremist groups.<sup>8</sup> Instead, longstanding think tanks such as the Stockholm International Peace Research Institute (SIPRI) have found, over time, a more organic connection to diverse institutional actors within EU states that focus on everything from health to science to trade to import/export activities.

### Moving Forward: Specific Global, Functional Goals in 1540 Implementation

Given the nature of the global problem as outlined above, what is more useful in meeting the true "operating environment" of 1540 implementation? Panelists offered up the following list of relevant functional capabilities, which need to be built up across the world via coordinated IGO, national, and civil society actions toward capacity building:

- Assessment of specific WMD proliferation risks at the national, regional, and global geopolitical levels, so as to create locally-tailored threat assessments.
- Increased cooperative efforts to bring publics, governments, and industries in a specific locality "on the same page" in terms of mutual understanding of threats and practical responses.
- Timely, tailored expertise in developing legislation, regulations, and best practices.
- A process-driven (rather than strictly outcome-driven) approach<sup>9</sup> that starts with initial "1540 action plans" and goes forward with constant, flexible assessment and incremental increases in capacities for enforcement.
- In line with the above: developing criteria and standards for compliance by performing an ongoing "gap analysis" in normal governmental activity in the areas of domestic law enforcement, public health measures, export controls, capacities for detecting unusual trade, monetary, or human network patterns, and so on.

- Education and training programs that have some commonalities between different regional or subregional contexts, but also have in-built differences, according to the circumstances at hand—one prominent example being the "International Export Control Association" developed by the NGO Center for International Trade and Security or CITS, which has worked with, or in, 75 different countries across the former Soviet Union, the EU, South and Southeast Asia, North Africa, and Latin America.<sup>10</sup>
- In the nuclear area, close work with the nuclear industry itself to "educate" them on the fact that the word "security" or "national security" is no longer simply the duty, role, and providence of states but, in fact, should become an embedded, routinized, and ingrained working-level goal of private sector actors, just as such private nuclear industry actors already have been tasked to internalize and push forward environmental and safety standards and assessment processes in their normal profit-loss equations.<sup>11</sup> In this regard, the World Institute for Nuclear Security (WINS) is already deeply immersed in transnational dialogues with prominent nuclear industry groups around the world to help achieve this goal. Similar "educative" goals toward industry actors also exist in NGO activities around the chem-bio sphere, including strong efforts by the BioWeapons Prevention Project toward US-based commercial actors.<sup>12</sup>
- The institution of contextual risk assessment and risk mitigation methodologies across all areas of WMD, but especially in regards to the biological era, where "a bug is a bug," in terms of diseases having potentially catastrophic effects regardless of their origins—therefore requiring a shared local assessment of biological risks that encompasses the gamut of events, from unforeseen collateral negative effects of state or private research activities, to unforeseen accidents (an accidental "leak" from a lab), to "normal" disease outbreaks, to illicit activities by extremists groups, as portrayed in Figure 1 below:<sup>13</sup>

Occurring	Infectious	g Unintended Consequences of Research	Accidents	5	Choices	Negligence (Failure to Follow SoPs	Drugs &	Sabotage		
Pandemics	Diseases	of Research		Awareness)		Follow SoPs	Crime		in Release	State

Figure 1: Spectrum of Biological Risks

All of this said: while it is clear that putting in place a global, standardized, legal framework specifically for 1540 interpretation and implementation is undesirable,<sup>14</sup> this does not mean that global legal frameworks specific to one type of "outlawed" WMD are not helpful. Indeed, the Harvard Sussex Program on developing a common global convention on chemical and biological threats would provide basic "template" norms and legal terminology in the area of chem-bio threats that could be built upon by individual states or regions to allow for responses that are locally tailored, but in sync with globally agreed norms and laws. For instance, as noted by the Harvard Sussex experts themselves,

...[It] is proposed that a new international treaty be created, one which would confer on national courts jurisdiction over individuals present in their national territory, regardless of their nationality or official position, who order, direct, or knowingly render substantial assistance to the use of biological or chemical weapons anywhere. *Such a treaty would specifically define acts involving biological or chemical weapons as international crimes, like aircraft hijacking or torture*, thereby creating a new dimension of constraint against biological and chemical weapons [emphasis added].<sup>15</sup>

Resolution 1540 calls upon all states to "adopt and enforce appropriate effective laws which prohibit any nonstate actor to manufacture, acquire, possess, develop, transport, transfer, or use nuclear, chemical, or biological weapons and their means of delivery." However, effective legislation is core in controlling the threat of CBW, and while Resolution 1540 is an important step toward this goal, it does not negate the need for the Draft Convention for several important reasons:

- Resolution 1540 seeks to strengthen national criminal law rather than to create international criminal law, which would result in further legislative heterogeneity between states. By establishing these actions as international crimes and providing a framework within which states parties can exercise jurisdiction over such crimes, the Draft Convention creates a more comprehensive and unified system for monitoring and eradicating the development, production, acquisition, stockpiling, retention, transfer, and use of CBW. In particular, the Draft Convention provides guidelines for how states threatened by the use of CBW can proceed when other states are unwilling to enforce these prohibitions or do not recognize these actions as crimes under their domestic laws.
- 2. Resolution 1540 requires that states "in accordance with their national procedures, shall adopt and enforce appropriate effective laws," but, unlike the Draft Convention, it does not set out provisions pertaining to jurisdiction. Article V(1)(a-f) of the Draft Convention would require each state party to establish jurisdiction with respect to crimes involving CBW according to established principles of international law, including the principles of territoriality, nationality, protection, passive personality and, in cases involving actual use of biological or chemical weapons, universality. The exercise of

universal jurisdiction is the best means for the international community to regulate the perpetration of serious international crimes and would ensure that perpetrators of the intentional use of biological or chemical weapons are brought to justice, regardless of where the offence was committed, the nationality of the offender, or the nationality of the victim.

- 3. Resolution 1540 does not contain provisions dealing with matters of extradition and protection of the accused. However, the Draft Convention contains provisions designed to ensure the rights of the accused to seek assistance from his or her state of nationality (Article VI[3]) and provides for extradition under circumstances in which states parties may or may not have preexisting extradition treaties with each other (Article VII[1-3]). The mechanism of extradition is essential to the international cooperative enforcement of criminal justice.
- 4. Resolution 1540 only applies against nonstate actors, while the Draft Convention also applies to those acting in an "official capacity, under the orders of a superior, or otherwise in accordance with internal law" (Article II[3]). If the "official capacity" defense were not explicitly prohibited by the Draft Convention, it could lead to differing interpretations by national courts as to whether *former* heads of state, or officials with special diplomatic protection recognized under international law, would retain immunity from prosecution in foreign countries for offences involving CBW. Article II(3) thus removes any doubt by making it clear that states parties to the Draft Convention have jurisdiction to prosecute or extradite *former* heads of state and government officials. Article II(3) also establishes strict limitations on the availability of the defense of superior orders. Any concern about the unreasonable prosecution of soldiers or other unwitting subordinates is addressed by the reasonable belief defense provided by the Draft Convention in Article II(2).<sup>16</sup>

Nor can the *economic dimension* be forgotten. In pursuing 1540 implementation, there must be a shared understanding among individual states, regional organizations, global IGOs, and civil society groups that the goal is to increase WMD risk mitigation and management capacities *while, at the same time, increasing economic trade flows, legitimate financial flows, human labor flows, and overall opportunities for development and prosperity.* Rather than seeing these two broad, increasingly globalized processes as "either/or," they should always be viewed as "both/and" through the *building up of the "human dimension" of security via the spread of an embedded "security culture" in both private industries and governments*, based in part on legal and technical aid in creating agreed local legal and regulatory frameworks for action that involve civic, scientific, commercial, and government capacities in the country concerned.<sup>17</sup>

Indeed, for the latter goal, one notable and successful example already exists as a model: the Center for Information on Security Trade Control (CISTEC) in Japan (founded in 1989) which, with a staff of 42 people, has put in place and executed the following processes, all with the goal of institutionalizing and enabling a "culture of compliance" for integrating global and national security concerns with commercial enterprise:

- Publications, workshops for industry and government officials, education courses for industry and government officials, and the maintenance and constant expansion of an extensive technical trade database, which encompasses fundamental data on industrial products and technologies for the purpose of building, monitoring, and maintaining security export controls while allowing free commerce.
- The buildup of a network of 347 private companies as "members" of CISTEC services, encompassing the whole array of technological expertise and product lines: metallurgical, electrical, optical, fibers, computers, trading (import/export service) companies, chemical-pharmaceutical, telecommunications, and precision machining and measurement companies.
- Examination and recommendation of advanced legal systems for trade regulation and promotion.
- The regular monitoring of industry opinions and desires via intensive committee processes that involve government and private actors alike.
- A series of seminars on licensing, classification, and management techniques for the full product cycle involving sensitive technologies, as well as specialized subjects such as EU, US, and other control rules of external groups.
- Overall monitoring and reporting on both internal Japanese regulations and also, outside the country, the status of "end users" of products and their activities.
- Extensive regional outreach to all of Asia in all of the above areas.
- Outreach to Japanese and regional universities to tap into, and support, academic talent in these areas.
- Extensive outreach to national laboratories and small- to mid-sized companies as well as corporate giants.
- As with the US NGO Center for International Trade and Security (CITS), the granting of certificates on licensing and other procedures based on professional exams and courses for government and industry officials.<sup>18</sup>

In this regard, the "both/and" approach to prosperity and security under the 1540 mandate should focus on *the triple nexus of transnational nonproliferation and counterterrorism* goals, national development goals, and internal and international efforts to stem the increasing tide of the global illicit economy and its violent offshoots, the latter of which can create smuggling routes, money, and expertise for extremist groups intent on mass casualty violence. This "triple nexus" is portrayed in Figure 2 (below), and has already provided the basis for successful regional and national reporting from the Caribbean, as well as new, unprecedented requests from the Caribbean region for capacity-building assistance from the UN 1540 Committee process.<sup>19</sup>

Figure 2: 1540 Implementation in the Caribbean Basin



However, such strategies must be approached by all actors with humility and a strong notion of "the art of the possible" in the very early stages, looking to create and implant a process for interaction that can grow and become more expansive at a later date. As argued by the

French Institute for International Relations (IFRI) at the October 1 civil society event, a focus on quick results and instant, rigid metrics can and will lead to frustration for all concerned, including both the aid giver (whether a country or an IGO such as the United Nations) and the aid recipient. Incremental realism, with a focus on instituting a sustainable process that can be built upon in stages, should be the initial goal. As argued by analyst Aline Leboeuf of IFRI, "Do we need a more ambitious development program based on lack of resources, such as the total reconstruction effort in post-conflict states, so as to develop real working governance systems?" The answer this analyst gave was "no"—at least in a 1540 context—because the extreme difficulty of implementing "total governance reform" in fragile states means that "all the resources would still not be enough."

Therefore, it is advisable to take a "light footprint approach" by adopting the more focused lessons from successful post-conflict reconstruction efforts that have helped states take ownership in narrow, well-defined areas of progress. This means, in essence, targeting a "strategic entry point" in a given country to promote development and nonproliferation simultaneously. One such example is ongoing international support for "legal reform capacity" in many post-conflict states, as well as issues such as natural resource governance where corruption and "dirty money" could be involved. For instance, in Sierra Leone, diamond control is as important as more direct, traditional nonproliferation efforts because profits from illicit diamond mining and smuggling could be used to fund extremist groups with transnational goals of mass casualty terrorism.

Thus, the 1540 Committee (and the international community in general) should be wary of overly ambitious approaches that could too easily lose the support of small countries that have limited resources for enacting a purely nonproliferation, counter-WMD mandate. Instead, efficient "niche" measures should be put in place quickly and opportunistically, building on existing international aid programs and existing nascent capacities in the recipient state, and in doing so, developing and expanding the pools of states that can act in collaboration with these well-defined, incremental, and focused goals. In such efforts, a focus on "nonproliferation culture"—again, the "human dimension" or "security culture" dimension—is advisable, with a flexible process based as much on informal as formal policy networks, bringing on as many actors as possible (including from domestic civil society in the recipient state) and avoiding an overly bureaucratic process. Finally, the international community could do more to publish information on successes in implementation to encourage skeptical states to take part in implementing 1540 goals.<sup>20</sup>

With this strong admonition in mind, while assessing the possible contributions of industry, NGOs, national governments, and international actors such as IGOs, it is important to fully address the existing dilemma of "compartmentalization" or "stovepiping" that tends to undermine rather than galvanize collective, coordinated, and timely action in 1540 imple-

mentation. As noted by biological industry expert Timothy Trevan of the International Council for the Life Sciences—whose descriptions of the current state of biosecurity management could just as well apply to the chemical and nuclear areas as well—current bureaucratic and political processes involve "compartmentalization of responsibility for dealing with, and hence assessing and responding to, biological risk across the spectrum; and [there is] insufficient international coordination and cooperation vis-à-vis biological risk assessment, management, and mitigation." Trevan's analysis essentially filters Figure 2 (see above) through the lens of current national and global bureaucratic realities, noting that: "The issue of compartmentalization holds true for the international scene, too, with the World Health Organization (WHO), World Organization for Animal Health (OIE), Food and Agriculture Organization (FAO), UN Environment Programme (UNEP) and UN Security Council (UNSC) all addressing different segments of the spectrum rather than the whole."<sup>21</sup> This "filter" of Figure 2 produces the following schematic:

### Figure 3: The Effects of Real-World "Compartmentalization" at National Levels.<sup>22</sup>

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Naturally Occurring Pandemics	Re-emerging Infectious Diseases	Unintended Consequences of Research	Accidents	lgnorance (Lack of Awareness)		Negligence (Failure to Follow SoP	Counterfeit Drugs & Sabotage Crime	Attack Resulting in Release	Biowarfare (Terrorism & State BW)
Public	Public Health		Occupational Safety		Govt	Regulatory agencies/ law enforcement		Security Services & Armed Forces	

Figure 3: The Effects of Real-World "Compartmentalization" at National Levels. 22

As further argued by Trevan—again, in language that could be applied fairly readily to the chemical areas of "risk management and mitigation" as well:

....[D]ifferent parts of the bureaucracy will analyse the risks associated with only that segment of the overall biological risk spectrum which falls under their purview. If the benefits of risk management efforts for each segment of the spectrum only accrued to that part of the spectrum, then this would not be problematic. But this is not the case. Many of the most effective risk management options provide risk mitigation across the whole spectrum. This is because a bug is a bug is a bug—it does not matter if a disease outbreak is caused by nature, an accidental lab release or the malicious intent of a bioterrorist; we have to identify it, diagnose it, contain it, treat it and recover. Thus efforts to improve early disease surveillance networks, speed up diagnosis and vaccine production, or improve resilience and emergency response will act to mitigate risks across the entire spectrum. But compartmentalized risk analysis by, say, the Department of Public Health, will only address the benefits to public health of taking measures to improve disease surveillance etc... Cost benefit analysis in such a compartmentalized way will automatically lead to an underinvestment in countermeasures as the benefits will always be understated. Conversely, a national, whole-of-government approach to risk analysis will properly capture the full benefits of such investments and so lead to more appropriate resource allocation.<sup>23</sup>

To combat these real-world impediments to effective 1540 implementation, Trevan argues that the following guidelines be followed by private industries, NGOs, national governments, and IGO actors in starting up new processes for implementation based on new modes of risk assessment and risk mitigation:

- Biological risk must be assessed holistically across the whole spectrum of risk.
- Creating a single, uniform methodology for assessing biological risk would be challenging but worthwhile, in terms of national and international policymaking, resource allocation, cooperation, and the spread of best practices. Given the different nature of the risks across the risk spectrum (natural, unintended, intended) and the differing availability of historical data against which to derive or test mathematical models, there was some agreement [at a recent London-based Track 2 forum] that a methodology may have to employ a range of models coupled with an overarching model to unify the resultant risk assessments.
- Any complete risk assessment would have to incorporate feedback loops to address the public's reaction to government risk management policies...potential terrorists' likely reactions to knowledge of the risk management measures, and the synergistic effects of actions taken to reduce the risk of one set of factors also reducing the risk of other sets of factors.
- There should be diverse modeling techniques and expertise employed in the uniform methodology to ensure its robustness and resilience. In this regard....expertise from insurance, banking, policy, meteorology, nuclear physics, the oil industry, cyberterrorism, and epidemiology would all be relevant in the formulation of the new methodology. That expertise should be drawn from a broad geographical basis to ensure global relevance.
- The next logical step would be to commission a paper reviewing risk assessment methodologies currently deployed in a number of geographically representative countries to assist in (a) the analysis of best practices, (b) understanding how and why existing methodologies diverge, and (c) identifying the elements upon which a new, internationally uniform biological risk assessment methodology can be developed. This [latter] paper could be published as a monograph and circulated to policymakers in countries that would need to cooperate on mitigating and managing biological risk for such actions to be optimally effective.<sup>24</sup>

In moving forward on the above, incremental, concrete steps, Trevan argued that a Track 2 forum should be developed to *initiate a high-level, international dialogue between those countries where coordination of biological risk management and mitigation efforts would have greatest global impact.* The aim of this dialogue would be, initially, to obtain a common understanding of the biological risks to which society is exposed and agreement that a common approach to assessment of this risk would be worthwhile. Ultimately, the aim would be to achieve agreement on a common risk assessment methodology and to institute regular meetings of the group to share biological risk assessments and to coordinate risk management and mitigation measures across national boundaries.

Finally, as Trevan recommended, this would ultimately point to a third area of work (Track 3)—an effort to move beyond existing risk assessment methodologies and create new approaches. The idea is to bring together government policymakers in the biological risk area with risk analysis experts from a wide range of disciplines which are faced with the same conceptual problem—how to assess and manage risk in complex systems with multiple variables for which perfect data cannot be available. Trevan argues that, as a first step, this group would compare current sectoral best practices with the aim of encouraging cross-disciplinary learning and adoption and adaptation of techniques from one field to others.<sup>25</sup>

As to "expected outcomes and benefits," Trevan gives a basic sense of what such activities should accomplish:

- The outcome of 'Track 1' should be the publication of a clear report in plain English which fully describes state-of-the-art biological risk assessment and which can be used immediately to move forward to a better, more harmonized approach to this important issue. The benefits would be clear—a greater comparability of the results of different nations' risk assessments, easier sharing of information and best practices, and better coordination in the allocation of resources to manage and mitigate biological risk internationally.
- The outcome of 'Track 2' would be a new mechanism for key countries to coordinate national and international biological risk assessment, management, and mitigation. This would have obvious benefits arising from common action—the overcoming of the "prisoner's dilemma" nature of the investment decision for mitigation measures which would otherwise ensure an underinvestment in such measures.
- The outcome of 'Track 3' would be an immediate opportunity for cross-sectoral learning vis-à-vis risk assessment methodology and practice, with the hope of a new, better risk assessment methodology with widespread application in many fields of human endeavor.<sup>26</sup>

# The Role of Regions: Creating Legitimacy and Tailored Implementation by Involving Regional IGOs and Local Expert Communities

Some panelists emphasized the positive role of regional approaches in overcoming several impediments to 1540 implementation. As noted by Brad Glosserman, Executive Director of Pacific Forum CSIS:

Countering WMD is not a priority for most countries. Political will is questionable. The issue of the coming 'nuclear renaissance' will heighten concerns about putting on new constraints on nuclear technologies and materials. Countries are truly concerned that the 1540 mandate will limit or inhibit their development via restricting trade. So there is need for evidence that robust export controls will help, not inhibit, their development. Also, countries don't like to expose their vulnerabilities [where their national capacities are weakest]. And finally, there is a need for both functional and regional specialists to be brought together for information sharing.<sup>27</sup>

While Dr. Glosserman was speaking to his own Southeast Asian knowledge, based on extensive Track 1 1/2 and Track 2 forums, retired Ambassador Marcos de Azambuja, vice chairman of the board of trustees of CEBRI (Brazilian Center for International Relations), argued that the ironic problem in Latin America is that the success of countering the proliferation of state-based, strategic nuclear arsenals has, unfortunately, led to a form of complacency on nuclear issues that impedes strong progress on UNSCR 1540. As the ambassador described, the attitude is, the "homework is already done," due to successful reaching of a nuclear-weapons-free zone and agreements between Brazil and Argentina to shut down their weapons-oriented nuclear programs. Thus, Latin America is (at least in part) living in a mood of "self-congratulation." The general sentiment in the region is that 1540 is not urgent since Latin American states have been responsible stakeholders in nonproliferation.<sup>28</sup>

Both of these sets of comments may make a regional approach sound like a fairly bleak course of action. However, both panelists, and other fellow panelists as well, argued exactly the opposite: precisely because some of the hardest impediments and most negative attitudes lie at the regional or subregional levels, so do the best solutions.

In speaking to the Asian context, especially Southeast Asia, Glosserman argued that:

1540 *will* matter, if we [the international community] take a regional approach. If we do this, we're framing the issues in the context they [the recipient states] want to hear about. We're being receptive. Regional legitimacy gives countries a solid geopolitical reason to think that they can respond to. So, when we talk about best practices, we need to draw on lessons from Caribbean Community (CARICOM) and

others. We need to bring civil societies into the discussion. This should not be an adversarial process [between local civil society and local governments]. In particular, we should identify regional experts. We should use local analysts and academics as a source of expertise in order to create legitimacy and ensure the implementation of these efforts.<sup>29</sup>

Meanwhile, the vice president of CEBRI in Brazil argued that all states parties should take advantage of the dramatic recent shift in international sentiment, as seen in US President Obama's April 5 Prague speech and the Medvedev-Obama meeting. Where there once was blockage, there is now a flowing stream of ideas and initiative. Accordingly, the goal of CEBRI is to convince neighbors that the nonstate, WMD terrorist threat affects them in more ways than they assume. Brazil is trying to work closely with neighbors to provide them with the mechanisms to realize 1540 measures, for instance, by emphasizing the issues associated with sensitive and advanced technologies. In addition, CEBRI is trying to raise issues in South America that threaten to undermine the peace: a territorial presence of transnational criminals; drug availability; advanced technological knowhow; and the potential for all of this to join up with extremist organizations and affiliations. Moreover, in Latin America, some border areas between countries are not very well policed. Thus, while the entire Southern Hemisphere has no strategic nuclear weapons, more indirect, illicit, and nonstate dangers certainly do exist-and Latin America is well-placed as a region to address these latent dangers. The Organization of American States (OAS) could be seen as a "model" in this regard, since it created a Committee on Hemispheric Security to look at issues such as illicit trafficking in arms, and also initiated a committee on counterterrorism, the Inter-American Committee Against Terrorism (CICTE). As noted by the ambassador, there are more workshops in Latin America on these issues than in any other region.<sup>30</sup>

Finally, long-standing nuclear expert Lawrence Scheinman spoke on his in-depth work on regional implementation of 1540 under the aegis of Chapter 8 of the UN Charter, which encourages strong roles for regional organizations. According to Scheinman, "Greater involvement of regional and subregional organizations will continue to ameliorate concerns about sovereignty." Also, one benefit of working through such organizations is that "actions taken by their members are mutually reinforcing."

In particular, the African Union (AU) and other subregional African organizations are essential to bringing the 1540 mandate to this continent because of Africa's huge geographic size and diversity. As Scheinman noted, African countries "range in culture, history, language, so it's difficult to get convergence on how to deal with a particular issue—whether the HIV/AIDS epidemic, poverty, wars, or human and drug and small arms trafficking." Also, "there is no chemical, biological, or nuclear weapons on their territory, so the attitude is, how is this their issue?" The answer to this skepticism—via diplomacy with regional and subregional organizations—can be counter-questions such as: "Are you being used as a transit point? Are you being used as a point of illicit construction?" (For example, the A. Q. Khan operation in Malaysia involved centrifuge components.)<sup>31</sup>

Ultimately, as this panel as a whole argued, the idea of pursuing regional approaches is to create a better assessment of focused needs for capacity building, and to work on solutions with local NGOs and IGOs on the ground who have a better understanding of local needs.

# Conclusion: Achieving Next Steps in the Nuclear, Biological, Chemical, and Radiological Areas Under the 1540 Mandate

The primary threat of catastrophic or "mass casualty" terrorism today does not come from traditional state-supported terrorism, as was prevalent during the Cold War, but rather, via wholly transnational, substate, and nonstate "armed bands" using advanced information technology to coalesce in ideology, goals, and missions that are not beholden to the usual geopolitical agendas of states.<sup>32</sup> Therefore, to the greatest extent possible, major powers must remove old bilateral animosities and conflicts so as to allow for better cooperation toward new global problems, including a more common evaluation of the risks and threats that come from the evolution of nonstate actors.

This would ideally include a final bilateral settlement between the United States and the DPRK and an eventual settlement of the Iranian nuclear issue, which would better allow states to focus on the fact that Al Qaeda keeps expanding from Saudi Arabia to Somalia, the Philippines, Indonesia, and elsewhere. Even as the international community is slowly building up new responses under instruments such as 1540, it must be kept in mind that terrorists are also ramping up their efforts and planning.

Thus, the challenges of both "vertical proliferation" and "horizontal proliferation" must be kept in mind as parties go forward. While we now have a diversified world, it is still true that *states as sovereign actors* are important, and in this diplomatic and political arena, there is still a need to drop the Cold War mentality that permeates major power relations. While there is new momentum, hope, and positivity in the realm of arms control and disarmament, there is still a general lack of appreciation by states throughout the global community for the inherent legitimacy of truly new policy instruments such as Resolution 1540.<sup>33</sup>

Resolution 1540, in fact, represents exactly what the UN founders intended for the United Nations to do: recognize common problems and threats, and cooperate as *truly equal players* under *a universal mandate* toward *shared solutions*. The threat posed by extremist violence, together with the increase in negative costs from criminal groups taking advantage of globalization, gives all members of civil society a stake in 1540. While the NPT remains extremely important, it is also true that the NPT framework has been based, from its very beginnings, on the concept of unequal or disparate powers, responsibilities, and

obligations, in which states are inevitably separated into weapons haves or have-nots, or nuclear energy haves or have-nots, or horizontal proliferators versus vertical proliferators. In stark contrast, 1540 recognizes a new trend in the international system that is common to all players, and asks for equal obligations and positive outcomes for all member states.<sup>34</sup>

Thus, in the nuclear area under 1540, states from the developed and developing world alike should work together to ensure, once and for all, verifiably strong and effective security and safety measures for all HEU and Pu, full stop, and especially HEU that could be used to make a "gun-type" crude fission device. Such materials must be secured no matter the country in which they exist, whether an ally or a competitor.<sup>35</sup> Given the universality of this mission, the IAEA and the United Nations are natural institutions for achieving such an ambitious global security goal.

Beyond highly enriched uranium or plutonium, the dual-use materials, technologies, expertise, and equipment that go into making dangerous biological and chemical agents are largely indistinguishable from those needed for "normal" scientific advancement, research, and commercial activities. Thus, export and border (customs) controls will only go so far in combating the use of chemical or biological weapons (CBW) by truly nonstate, transnational threats of extremist terrorism with an antiglobalization bent. Indeed, an attack with a chemical effect is just as likely to involve conventional explosives in unconventional ways against "soft targets" that could have catastrophic chemical or nuclear results, such as conventional attacks against nuclear or chemical facilities in the developing or developed world alike.<sup>36</sup>

In the area of CBW, therefore, perhaps the most important defense or preventive measure is effective, resilient, and well-funded *public health systems*, including prevention and response infrastructure and national coordination with the World Health Organization. This is clearly where 1540-mandated "capacity building" and development could play a central role.<sup>37</sup>

Another key reality is that "big money" is involved if a fringe group (Al Qaeda or other) tries to weaponize a chemical or biological agent—or, alternatively, tries to smuggle, buy, and weaponize vulnerable nuclear materials. Big money is a given for *procuring* nuclear materials illegally, while big money is also a given for the complex and difficult task of *weaponizing* bio-chem agents.<sup>38</sup>

In turn, this raises the questions: Where does such "big money" come from? How is it used as investments to create even more funds, in terms of the modus operandi of wealthy nonstate or transnational terror groups? Answers include: illicit drugs, guns, people trafficking, investment in legitimate companies through intermediaries, bribery or blackmail of officials, and other forms of criminal activity and corruption that take place in and around fragile environments around the globe. Therefore, illicit WMD proliferation can no longer be separated from transnational crime, illicit trafficking, and the violent and criminal consequences of the "negative underbelly of globalization" in general. In other words, 1540 implementation cannot be separated from the global illicit economy and its many violent offshoots, including drug, gun, and people smuggling, as well as the growth of corruption in the First World and developing world alike. Hence, the problem and theme of national and global corruption will always be there, and should be viewed as a potential target of 1540.<sup>39</sup>

In combating this relatively new and evolving threat, UNSCR 1540 provides a legal, normative, and action-based framework for moving toward *technology governance* rather than *technology denial* approaches in nonproliferation. Therefore, development and national capacity building in underdeveloped states across the globe should, under the 1540 mandate, be especially focused in the areas of:

- Systematic tracking and securing of nuclear materials, especially HEU that can be used in relatively crude fission devices, as well as agents and materials of value for CBW.
- Effective law enforcement (which still respects human rights of citizens).
- Advanced national and international risk assessment and risk mitigation techniques, especially for the areas of chemical and biological threats.
- Advanced information infrastructure for linkages to international databases for real-time data sharing on extremist groups and their activities.
- Advanced legal infrastructure to ensure compliance with international conventions on crime and trade.
- Infrastructure devoted to identifying phony or "front" corporations and businesses used by illicit transnational actors to generate and move money and sensitive materials which in turn means increased capabilities to track, identify, and analyze complex financial deals and transactions.
- Serious disease prevention capabilities.
- Post-attack response capabilities of civil authorities for disasters.
- Overall health infrastructure.<sup>40</sup>

Increasingly, such areas are more important indirect measures to combat transnational threats than the traditional NPT "three-legged stool" of state-based nonproliferation, nuclear technology development, and nuclear disarmament. This implies that 1540 implementation will be more about simultaneous top-down and bottom-up "national capacity building" in the developing world rather than top-down "technology denial" methods alone. This would mean applying 1540 on a *universal basis* that applies equally and neutrally, on a nondiscriminatory basis, to all states in the international system, regardless of their actions (negative or positive) on more traditional nonproliferation fronts under the NPT.

For example, the most ubiquitous examples of attempted biotoxin chemical attacks since 1970 are, perhaps surprisingly for many, *right-wing American extremist groups*, who have been stopped, every time, by the Federal Bureau of Investigation (FBI). The political, diplomatic, and law enforcement side of 1540, therefore, should be about the *thwarting of violent nonstate groups in general* rather than combating "jihadist" terrorism per se. Jihadist, Islamic terrorism is a subset of the larger problem of antiglobalization extremism, as repeated attempted attacks by US right-wing extremist groups using bio-chem agents since the early 1970s clearly demonstrates. Such cases notably include attempts by US fringe groups to use ricin and typhoid.<sup>41</sup>

Therefore, efficient and effective action will depend on both state and nonstate actors working together toward shared goals of capacity building, rule of law, and prevention of catastrophic violence by nonstate extremist groups.<sup>42</sup> In this equation, states bring sovereign legitimacy, while commercial enterprises, academia, and research institutions generate new and innovative "whole of society" ideas on how to counter the risks the threat poses. Notably, NGOs can take steps more nimbly than governments to put forward ideas on (1) how the 1540 Committee can help the international community unite behind truly common interests and stakes of all relevant stakeholders; and (2) how, exactly and specifically, civil society groups and private industry can contribute to effective implementation.

Another benefit of civil society organizations is that they are extremely focused, specialized and, generally, also smaller than government organizations. They do not have the same extensive agendas as governments or foreign ministries, whose necessarily dense bureaucracies can sometimes delay timely action. NGOs are also typically "multilateral" in character, since they are, by definition, often free of narrow state interests, allowing them in some settings to act more impartially, especially in new, evolving areas of global governance. Finally, NGOs are often trustworthy partners, in that they are heavily committed to the normative goals and values stated in their charters, and they can more easily sidestep the "skepticism" or cynicism that inevitably exists toward central governments among a given populace. In sum: it is not just that NGOs and industries can help states enact goals that the state governments themselves put forth, but rather, that NGOs and industries can help states figure out, even if informally, (1) who the stakeholders are in any given region or subregion; (2) which stakeholders have which capabilities and capacities to contribute to a common effort (whether a government agency or a private group); and (3) how such stakeholders can most effectively meet together, or link up, for definition of shared solutions and means to reach those solutions. And, if such actors have difficulty defining shared solutions, NGO and private industry associations can use their analytical expertise to lay out frameworks for action and the main ingredients of potential solutions, thereby enabling eventual government-private action.<sup>43</sup>

Michael Kraig, Senior Fellow, the Stanley Foundation prepared this report following the conference. It contains his interpretation of the proceedings and is not merely a descriptive, chronological account.

# Appendix 1: Agenda

### October 1, 2009

### Organized by:

The Stanley Foundation, The Arab Institute For Security Studies, Fondation pour la Recherche Stratégique (FRS), NPSGlobal Foundation, The Stimson Center, VERTIC, Institute for Security Studies, Stockholm International Peace Research Institute, and World Institute for Nuclear Security

Cosponsored by the UN Office for Disarmament Affairs

All submitted papers are available on the web at *www.stanleyfoundation.org/1540* 

### 10:00-10:30: Opening Session Setting the Frame: An Overview of the Issues and Challenges

- Opening by Ambassador Jorge Urbina, Chairman of the 1540 Committee, Costa Rica
- Opening Presentation by **Dr. Michael Ryan Kraig**, Senior Fellow, The Stanley Foundation, USA

### Short Coffee Break

10:45-1:00: First Panel UNSCR 1540 as a Global Instrument

- "Resolution 1540: At the Crossroads," by Zhai Dequan, Deputy Secretary General, China Arms Control and Disarmament Association, China
- "The Role of the UN in Promoting 1540 Implementation: The Need for an Enhanced Global Response," by Eric Rosand, Co-Director, Center on Global Counterterrorism Cooperation, USA
- "Illicit Trafficking, Transnational Threats, and Nuclear Terrorism: Addressing Vulnerabilities in Fragile





















Environments," by Rita Grossman-Vermaas, Senior Associate and Director, Center for the Study of Threat Convergence, Fund for Peace, USA

- "Chemical and Biological Threats: The Relevance of a Universal CBW Convention to 1540 Implementation," by **Catherine Jefferson**, Research Fellow, Harvard Sussex Project, UK
- "UNSC Resolutions on Iran and North Korea as 1540 Stepping Stones," by Peter B. Crail, Nonproliferation Analyst, The Arms Control Association, USA
- "Nuclear Terrorism and UN Resolution 1540: A South Asian Perspective,: Dr Reshmi Kazi, Associate Fellow IDSA, Institute for Defence Studies & Analyses, India

1:00-2:00: Break for Lunch

### 2:00-3:00: Second Panel The Role of Regions: 1540 Implementation at the Regional Level

- "Bridging the Security/Development Divide with UNSCR 1540: A Regional Case Study Approach," by Brian Finlay, Senior Associate, The Henry L. Stimson Center, USA
- "The Regional Scene: The Brazilian Perspective," by Ambassador Marcos de Azambuja, Vice-Chairman of the Board of Trustees of CEBRI, Brazilian Center for International Relations
- "Making 1540 Matter: The Results of Extensive Track-Two Forums in Asia," by **Brad Glosserman**, Executive Director, Pacific Forum CSIS, USA
- "The Role of Regional Organizations," by **Dr. Lawrence Scheinmann**, James Martin Center for Nonproliferation Studies, Monterey Institute of International Studies, USA

### 3:00-3:30: Coffee Break

### 3:30-4:30: Third Panel National Implementation: Lessons Learned and Ways Forward

• "Strengthening Barriers Against New CBRN Threats: Going beyond Traditional Arms Control, Disarmament, and Nonproliferation Constituencies," by Dr. Ian Anthony, SIPRI, Sweden

- "Improving Biological Risk Assessment, Management, and Mitigation: The Role of New Methodologies and International Coordination," by **Martin Timothy Trevan**, Member, Board of Directors, International Council for the Life Sciences, USA
- "Implementation of UNSC Resolution 1540 at the National Level," by Rocio Escauriaza Leal, Legal Officer, VERTIC, UK
- "Promoting Ownership of UNSC Resolution 1540: The Light Footprint Approach?" by Aline Leboeuf, Research Fellow, Defense and Security, Institut français des relations internationales, France

### Short Coffee Break

### 4:45-5:45 Fourth Panel Civil Society Contributions to 1540 implementation

Chaired and Moderated by Irma Arguello, Co-Organizer for the 1540 Civil Society Event, NPSGlobal Foundation, Argentina

- "Implementing UNSCR 1540: The Role of Industry and Corporate Governance,"by **Dr. Roger Howsley**, Executive Director, World Institute for Nuclear Security, Austria
- "The Role and Activities of a Japanese NGO on National Export Controls," by Hiroshi Nakao, Deputy Director, Center for Information on Security Trade Controls (CISTEC), Japan
- "Need for a Civil Society Role in Monitoring and Raising Awareness of the Norms Against the Weaponization of Disease," by **Dr. Marie Isabelle Chevrier**, Professor of Public Policy and Political Economy Chair, BioWeapons Prevention Project, USA
- "The Role of NGOs in Facilitating Implementation of Effective Export and Border Controls," by **Julia Khersonsky**, Project Coordinator, Center for International Trade and Security, USA

### 5:45 -6:00: Summary of Findings

Closing Remarks by Dr. Michael Ryan Kraig, Senior Fellow, The Stanley Foundation, USA

## Endnotes

- <sup>1</sup> Verbal remarks by Dr. Michael Ryan Kraig, Senior Fellow, The Stanley Foundation, based on the informal working paper "Priorities for Funding and Action under UNSCR 1540: Using Development Assistance to Confront the Nexus of Illicit Trafficking and Nonstate Extremists Groups Intent on Mass-Casualty Violence," available on the Stanley Foundation's Web page for the October 1 Civil Society Event, *www.stanleyfoundation.org/1540*. See also Elizabeth Turpen, "Achieving Nonproliferation Goals: Moving From Denial to Technology Governance," *Policy Analysis Brief Series*, The Stanley Foundation, June 2009, *http://www.stanleyfoundation.org/publications/pab/TurpenPAB609.pdf*.
- <sup>2</sup> See, for instance, the PowerPoint presentation by Rita Grossman-Vermaas, Director, Center for the Study of Threat Convergence, The Fund for Peace, Washington, DC, titled "Illicit Trafficking, Transnational Threats, and Nuclear Terrorism: A Development and Capacity Building Approach," Stanley Foundation Web page for the October 1 Civil Society Event, *www.stanleyfoundation.org/1540*.
- <sup>3</sup> This paragraph is based on remarks by Peter Crail, Nonproliferation Analyst, the Arms Control Association, from his paper titled "UNSC Resolutions on Iran and North Korea as 1540 Stepping Stones," Stanley Foundation Web page for the October 1 Civil Society Event, *www.stanleyfoundation.org/1540*.
- <sup>4</sup> Based on a PowerPoint presentation, "The Role of NGOs in Facilitating Implementation of Effective Export and Border Controls," by Julia A. Khersonsky, Director for Legislative Outreach, the Center for International Trade & Security (CITS), Stanley Foundation Web page for the October 1 Civil Society Event, *www.stanleyfoundation.org/1540*.
- <sup>5</sup> Based on general panel remarks, including intense discussion between panelists and the audience during a "Q&A session" for the expert panel on "National Implementation: Lessons Learned and Ways Forward," chaired by Dr. Ian Anthony of SIPRI, October 1 Civil Society Session. See Appendix 1 for the details of this panel.
- <sup>6</sup> Based on verbal remarks and the paper submission, "Nuclear Terrorism and UN Resolution 1540: A South Asian Perspective," by Dr. Reshmi Kazi, Associate Fellow, Institute for Defence and Strategic Analyses (IDSA), New Delhi, India, Stanley Foundation Web page for the October 1 Civil Society Event, *www.stan leyfoundation.org/1540*.
- <sup>7</sup> Based on the PowerPoint presentation and full paper submission, "Improving National Biological Risk Assessment Methodology and Encouraging International Coordination of Biological Risk Assessment, Management and Mitigation," by Martin Timothy Trevan, Member, Board of Directors, International Council for the Life Sciences, Stanley Foundation Web page for the October 1 Civil Society Event, *www.stanleyfoundation.org/1540*.
- <sup>8</sup> Based on verbal remarks and the submitted paper, "Strengthening Barriers against New CBRN Threats: Preliminary Lessons Learned," by Dr. Ian Anthony, Arms Control and Non-proliferation Programme Leader, SIPRI, Stanley Foundation Web page for the October 1 Civil Society Event, *www.stanleyfounda tion.org/1540*.
- <sup>9</sup> The primary argument made for a process-driven, "light footprint approach" that is tailored to local circumstances was given by Aline Leboeuf, French Institute of International Relations (IFRI), "Promoting Ownership of UNSC Resolution 1540: The Light Footprint Approach?" Stanley Foundation Web page for the October 1 Civil Society Event, *www.stanleyfoundation.org/1540*.
- <sup>10</sup> Most of the material in this bullet and the bullets above it are taken directly (with some amendments based on remarks by Aline Leboeuf) from the PowerPoint presentation by Julia A. Khersonsky, CITS, *op. cit.*

- <sup>11</sup> Based on the verbal remarks, PowerPoint presentation, and submitted paper, "Implementing UNSCR/1540—the Role of Industry and Corporate Governance," by Dr Roger Howsley, Executive Director, World Institute for Nuclear Security (WINS), Stanley Foundation Web page for the October 1 Civil Society Event, *www.stanleyfoundation.org/1540*.
- <sup>12</sup> See for instance Dr. Marie Isabelle Chevrier, Chair of the BioWeapons Prevention Project, "The Need for a Civil Society Role in Monitoring and Raising Awareness of the Norms against the Weaponization of Disease," Stanley Foundation Web page for the October 1 Civil Society Event, *www.stanleyfoundation.org/1540*.
- <sup>13</sup> This paragraph, and Figure 1, are taken directly from the verbal remarks, PowerPoint presentation, and submitted paper of Martin Timothy Trevan, International Council of the Life Sciences, *op cit*.
- <sup>14</sup> See for instance the argument against this approach by Aline Leboeuf, IFRI, op cit.
- <sup>15</sup> See submitted paper by Dr. Catherine Jefferson of the Harvard Sussex Program, "The Harvard Sussex Draft Convention as a Complement to Resolution 1540," Stanley Foundation Web page for the October 1 Civil Society Event, *www.stanleyfoundation.org/1540*.
- <sup>16</sup> All of the above five paragraphs are excerpted, not verbatim, from the submitted paper by Dr. Catherine Jefferson, Harvard-Sussex Program, *op cit*.
- <sup>17</sup> This paragraph is based largely on the PowerPoint presentation by Julia A. Kheronsky, CITS, *op cit.*, with some amendments or rewording based on comments of other panelists at the event, for instance comments by Dr. Brad Glosserman on the anxiety among some leaders in Asia that 1540 implementation could impede economic growth. See for instance the paper submission by Brad Glosserman, Executive Director, Pacific Forum CSIS, "Making 1540 Matter: The CSCAP Experience," particularly pages 2-3, Stanley Foundation Web page for the October 1 Civil Society Event, *www.stanleyfoundation.org/1540*.
- <sup>18</sup> This extensive list is taken from the PowerPoint presentation by Hiroshi Nakao, Center for Information on Security Trade Control (CISTEC), Japan, "Role and Activities of NGO on Export Control," Stanley Foundation Web page for the October 1 Civil Society Event, *www.stanleyfoundation.org/1540*.
- <sup>19</sup> This paragraph's main conclusions, and the graphic used for Figure 2, are taken from the submitted paper and PowerPoint presentation by Brian Finlay, The Henry L. Stimson Center, Washington, DC, "Bridging the Security/Development Divide with UN Security Council Resolution 1540: A Case Study Approach," a commissioned Working Paper by The Stanley Foundation, published on the Stanley Foundation Web page for the October 1 Civil Society Event, *www.stanleyfoundation.org/1540*.
- <sup>20</sup> These latter three paragraphs are largely taken from the verbal remarks and submitted paper by IFRI analyst Aline Leboeuf, *op cit.*, with some amendments based on remarks by Julia A. Kheronsky, *op cit.*, and Rita Grossman-Vermaas, *op cit.*
- <sup>21</sup> Quotes taken from the formal paper submission by Martin Timothy Trevan, International Council for the Life Sciences, op cit..

<sup>22</sup> This figure is taken wholesale from the submitted paper by Trevan, *Ibid.*, with his permission.

<sup>23</sup> *Ibid*.

<sup>24</sup> Ibid.

<sup>25</sup> These latter two paragraphs are excerpted nearly in their entirety from Trevan, *Ibid*.

<sup>26</sup> *Ibid*.

- <sup>27</sup> Verbal remarks by Brad Glosserman, op cit.
- <sup>28</sup> Verbal remarks by Ambassador Marcos de Azambuja, Vice-Chairman of the Board of Trustees of CEBRI (Brazilian Center for International Relations). See Appendix 1 for the "Regional Panel" speakers and format.
- <sup>29</sup> Glosserman, op cit.
- <sup>30</sup> Ambassador Marcos de Azambuja, op cit.
- <sup>31</sup> Quotes and substantive points of the latter two paragraphs are based on the verbal remarks and submitted PowerPoint presentation of Dr. Lawrence Scheinman, James Martin Center for Nonproliferation Studies, Monterey Institute of International Studies, USA, "Implementing United Nations Security Council Resolution 1540: The Role of Regional Organizations," Stanley Foundation Web page for the October 1 Civil Society Event, *www.stanleyfoundation.org/1540*. See Appendix 1 for the format of the panel, "The Role of Regions."
- <sup>32</sup> This observation is taken largely from the submitted Stanley Foundation Working Paper by Dr. Michael R. Kraig, op cit.
- <sup>33</sup> All observations and arguments from the previous footnote to this one are based on the verbal and written remarks of Dr. Zhai Dequan, Deputy Secretary General, China Arms Control and Disarmament Association, Beijing. See Appendix 1 for the format of the "Global Panel" on which Dr. Dequan took part.
- <sup>34</sup> This paragraph is largely based on the verbal remarks of Ambassador Marcos de Azambuja, CEBRI, op cit.
- <sup>35</sup> Based on the verbal remarks and submitted paper by Dr. Reshmi Kazi, IDSA, op cit.
- <sup>36</sup> This paragraph's argument is taken almost wholly from the submitted Working Paper by Dr. Michael Ryan Kraig, *op cit*.
- <sup>37</sup> This argument and recommendation is taken from the combined arguments of Martin Timothy Trevan, *op cit.*, and Michael Kraig, *Ibid.*
- <sup>38</sup> This argument is taken from the submitted paper by Kraig, op cit.
- <sup>39</sup> These arguments are a paraphrase of the PowerPoint presentation given by Rita Grossman-Vermaas, Fund for Peace, *op cit*.
- <sup>40</sup> These recommendations are taken from a combination of remarks by several panelists and the paper submitted by Dr. Kraig, *op cit*.
- <sup>41</sup> These arguments are taken from the verbal conference remarks of Dr. Kraig, op cit.
- <sup>42</sup> See for instance the arguments in the PowerPoint presentation by Dr. Lawrence Scheinman, op cit.
- <sup>43</sup> These final arguments in the last three paragraphs, on the suitability of NGOs for implementing UNSCR 1540, are taken from the verbal remarks and submitted paper of Marie Isabelle Chevrier, BioWeapons Prevention Project, *op cit*. See Appendix 1 for the format and panelists of the "civil society panel" of the October 1 event.

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