**Issue Overview**

Nuclear, chemical and biological weapons pose grave threats to human life, the environment and the global economy. The fact that weapons of mass destruction (WMD) have not been used over the past 20 years reflects, in part, strong international norms embodied in a range of legal restrictions. Yet not all nations have ratified or adhere to the major treaties against WMD, nor are states the only actors interested in acquiring weapons technology. Concerns about secret nuclear weapon development in Iran and North Korea and attempts by terrorist groups to obtain weapons technology continue to raise questions about whether non-proliferation norms can hold.

Accelerating scientific advances and rapid technology transfer are opening up new avenues of proliferation for nations, terrorist groups and even “lone wolf” actors. Research in the life sciences, for example, has recreated devastating diseases that mankind fought to eradicate for hundreds of years. Meanwhile, poorly monitored nuclear materials, biotech sites, chemical stockpiles and global supply chains have improved access to weapons materials for groups and individuals with terrorist objectives.

The link between disaster mitigation and WMD safety and security was made apparent during the 2003 SARS outbreak, and again by the crisis surrounding Japan’s Fukushima plant. State and international emergency responses were tested to their limits, prompting reactive measures and stop-gap coordination among actors. They highlighted the absence of universal international cooperation on disaster management and non-proliferation. Cold War-era nuclear and chemical stockpiles have not yet been destroyed. International standards for oversight of research, security and safety are applied only erratically.

The Council has flagged industry-led initiatives, such as the Australia Group, which could be strengthened for furthering non-proliferation, particularly with regard to securing dual-use technology, research and materials in global supply chains. Arrangements must also be made for international cooperation to respond to a WMD disaster.

**Did You Know?**

— 21,900 nuclear warheads are accounted for worldwide. The amount of declared chemical weapons awaiting destruction is 27,063 metric tons plus 4,720,000 weapons and containers.¹
— Weaponized diseases include smallpox, anthrax and plague.
— According to the European Commission, “practically all” of Europe’s 130 active nuclear reactors require safety improvements, repairs or upgrades.²

**Further Resources**

“Global Agenda Council on Nuclear, Biological & Chemical Weapons 2011-2012”. World Economic Forum,

“Why does the WMD Threat Matter?” World Economic Forum,

CTBTO Preparatory Commission,
http://www.ctbto.org/verification-regime/the-11-march-japan-disaster/

**Calendar**

17-21 September 2012, 56th IAEA General Conference

December 2012, tentative deadline for the Conference on a Nuclear Free Zone in the Middle East

15-17 December 2012, Fukushima Ministerial Conference on Nuclear Safety

17-21 June 2013, CTBT Science and Technology Conference

Council Insights

The Council brings together a global group of practitioners and researchers who collaborate to further the objective of non-proliferation. It has made some crucial recommendations in this regard, foremost of which is education of the public and key stakeholders on WMD. Such education should be cross-cutting and accessible, providing a balanced perspective on the opportunities and risks associated with WMD as well as disarmament. New media should be employed for this.

In addition, policy-makers should pay greater attention to the impact of new sciences and technology on WMD, staying ahead of the curve to the extent possible. For example, space technology and new chemicals are not considered by treaty schedules, an anomaly that must be corrected.

For the coming term, the Council has identified the following priority areas for their work:

- **Education:** Public misinformation, misconceptions and insufficient understanding among key stakeholders, even within WMD contact points and national organizations, is a major weakness of international systems for non-proliferation and disarmament.
- **Science and Technology:** The ease of dissemination of existing technologies fosters new risks for non-proliferation regimes, while entirely unknown technologies, such as new genetic techniques or new chemicals, threaten the effectiveness of existing systems for non-proliferation. Looking ahead, the international community must address the impact of future technologies like synthetic biology and space technology on WMD.
- **Industry engagement:** Important inputs and efforts from industry support peaceable norms against WMD proliferation. Now, more participation is urgently needed to fortify what policy-makers call the “web of prevention” to increase the guarantees for a safer world. Through monitoring of global supply chains, collaboration on inspections, training of personnel and information exchange, industry can play a greater role.

Contact Information

Council Manager: Isabel de Sola, Senior Knowledge Manager, Global Agenda Councils. Isabel.desola@weforum.org
Forum Lead: Martina Gmür, Senior Director, Global Agenda Councils. Martina.gmuer@weforum.org