

**EFFECTIVE ELEMENTS FOR EXPORT CONTROLS FOR APEC
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WMD Proliferation Trends and Challenges

Presentation by Australia

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Introduction

The spread of weapons of mass destruction and their delivery systems poses one of the greatest contemporary threats to international peace and security. A handful of states are continuing to develop weapons of mass destruction in defiance of international rules and norms, and several terrorist groups have made no secret of their ambitions to acquire weapons of mass destruction. Proliferation activities have become more sophisticated, assisted by opportunities created by globalisation and the increased availability of weapons of mass destruction-related materials and know-how.

The need to confront these challenges has been recognised by the UN Security Council. In April 2004, in an historic and major achievement, the Security Council unanimously adopted Resolution 1540 which requires all UN members to take action to prevent the proliferation of weapons of mass destruction and their means of delivery, particularly to non-state actors.

APEC leaders have also acknowledged the need for action on proliferation. In 2003 they committed APEC member economies to take all essential actions to eliminate

what was described as the ‘severe and growing danger’ posed by the proliferation of weapons of mass destruction and their means of delivery.

Key trends

Since the end of the Cold War, a number of states have sought to assert power by developing weapons of mass destruction or the capacity to produce such weapons. They have been able to do so by exploiting arms control and non-proliferation arrangements that have not kept pace with the radical shift away from a bipolar balance of power.

For example, North Korea claimed in February 2005 that it had produced nuclear weapons. While there is no conclusive evidence to support this claim, it is likely that North Korea has sufficient fissile material for a small number of nuclear weapons.

In December 2003, the International Atomic Energy Agency found that Iran had pursued secret nuclear activities for the past twenty years and had failed to meet its safeguards obligations in many areas. In September 2005, the IAEA Board of Governors found Iran to be in non-compliance with its NPT Safeguards Agreement.

These cases have highlighted the potential for states of proliferation concern to misuse their rights under the NPT to develop peaceful nuclear programs as cover to acquire the technical basis for a nuclear weapons program.

On the other hand, the international community has been successful in encouraging a number of states to renounce nuclear weapons and to join – or to return to compliance with – the Nuclear Non-Proliferation Treaty (NPT). In the 1990s, South Africa, Belarus, Ukraine and Kazakhstan renounced nuclear weapons and joined the NPT. In December 2003 Libya agreed to renounce its clandestine nuclear weapons program and reaffirmed its commitment to the NPT, which it had ratified in 1975.

However, even states with a genuine commitment to NPT compliance can still pose a nuclear proliferation risk. Weak physical security for nuclear facilities and materials can result in misappropriation of sensitive goods and technologies. Between 1993

and 2004, the IAEA recorded over 200 reports of confirmed incidents of unauthorised movement or possession of nuclear material.

Fortunately, although nuclear weapons are the most destructive of all weapons of mass destruction, they remain expensive and difficult to produce. In contrast, materials and technology for producing chemical and biological weapons are becoming increasingly available as countries modernise and expand their industrial and technological capacities. The rapid growth of the biotechnology industry, for instance, has spread the technical capability for production of biological agents.

All known production facilities which supported state chemical weapon capabilities have been deactivated in keeping with obligations under the Chemical Weapons Convention. A few states, though, are suspected of cheating on their Chemical Weapons Convention commitments by retaining undeclared chemical weapon programs and stockpiles. Two states which are not members of the Chemical Weapons Convention, North Korea and Syria, are suspected of having sizeable chemical weapons programs and stockpiles.

Missiles

As menacing as they are, weapons of mass destruction pose their most lethal threat when joined with an effective delivery system. And while weapons of mass destruction can be delivered by a wide variety of means, including artillery, aircraft and even suicide bombers, ballistic missiles which are capable of being armed with weapons of mass destruction garner the most international political attention.

The number of ballistic missile-capable countries has grown significantly over recent decades. In 1975, only the United States, the Soviet Union, France, China and Israel were indigenously producing ballistic missiles, with only a small handful of other countries possessing them. Since then, the number of missile-capable countries has more than tripled, including several more countries attaining an indigenous production capability. According to published sources, eleven states currently possess medium-range, intermediate-range and/or intercontinental ballistic missiles, and at least another nineteen states possess short-range ballistic missiles.

There are several reasons for this increase in missile capability. These relate chiefly to proliferation by former Eastern Bloc countries through the 1970s and 1980s.

Impact of export controls

For many years, multilateral arms control treaties have provided the cornerstone for preventing the proliferation of weapons of mass destruction. However, they have had patchy success in stemming illicit trade in weapons of mass destruction-related materials and delivery systems, owing to the absence of, or limitations on, legally binding provisions on transfers.

A key means for filling this gap has been export controls. But their effectiveness in cutting the supply of weapons of mass destruction-related materials and equipment relies on states interpreting and implementing controls with some degree of uniformity.

It was to this end, and in the context of the discovery of Iraq's successful weapons of mass destruction-related procurement efforts in the early 1980s, that the Australia Group was established. The Australia Group seeks to harmonise the national export controls of 39 participating countries and the European Commission to prevent any contribution to chemical and biological weapons programs through the inadvertent supply of chemical precursors, biological agents and dual-use equipment.

Along with the other four major export control regimes – the Nuclear Suppliers Group, the Zangger Committee, the Missile Technology Control Regime and the Wassenaar Arrangement – the Australia Group has played a pivotal role in the fight against proliferators. Greatly assisting these efforts, a growing number of countries outside the export control regimes have introduced national export licensing measures based on the benchmarks set by these regimes.

Secondary proliferation

Nevertheless, recent years have witnessed fundamental changes in the international trading environment and scientific community that have challenged the effectiveness of export controls.

Economic globalisation has brought obvious socio-economic benefits. It has, at the same time, seen the number of potential source countries grow considerably. Two decades ago, only a handful of countries – largely Western countries – possessed dual-use materials and technology. Now, such items can be sourced from several dozen countries. These include several countries in the Asia-Pacific region that have undergone rapid industrial development, particularly in the chemical manufacturing and biotechnology sectors.

This has led to proliferation activity occurring outside the reach of existing export control frameworks. North Korea, for instance, is known to have exported ballistic missiles and technology to Pakistan and Iran, as well as assisted these countries' missile programs through exchanges of experts. A Q Khan, a key figure in Pakistan's nuclear program, used his position to build a global proliferation network which traded for profit in nuclear technologies and know-how with states of proliferation concern. Khan's network is believed to have sourced nuclear components from up to 30 companies in 12 countries, including in Europe and South-East Asia.

Unchecked proliferation between states of concern will increase the number of potential secondary proliferators. There is a real danger that some countries resisting compliance with non-proliferation regimes, especially in the Middle East, could become supplier countries in the near future. In this regard, Iran's quest for nuclear technology and Syria's chemical weapons program will provoke increasing international attention.

Terrorism and WMD

The threat of terrorists using chemical, biological or radiological weapons is not new. Aum Shinrikyo's use of sarin in the Tokyo underground in 1995 first alerted us to the

dire consequences of weapons of mass destruction-related materials falling into the hands of terrorists.

Al-Qaida has declared its ambitions to acquire and use weapons of mass destruction. Terrorist groups in the Asia-Pacific region, such as Jemaah Islamiyah, have similar ambitions. Expansion of these groups' regional networks means that none of us here can consider ourselves immune from the threat of terrorist attack or proliferation activity.

Thankfully, the technology and infrastructure required for developing nuclear weapons is beyond the reach of terrorists. Similarly, few terrorist groups are sufficiently resourced at present to master technologically complex processes for weaponising chemical and biological agents effectively. Accordingly, most likely terrorist options are theft from existing weapons of mass destruction stocks, purchase from or supply by possessors of weapons of mass destruction (none of which would be straightforward), or the development of crude or improvised chemical, biological and radiological devices.

The high security surrounding nuclear weapons arsenals militates against the possibility of terrorists stealing ready-made weapons. However, instances of theft of radioactive sources (as opposed to nuclear materials) have increased considerably over recent years, especially in Russia. The placing of caesium-137 by Chechen terrorists in a Moscow park in 1995 highlighted the possible dangers posed by inadequate security at sensitive facilities in the former Soviet republics. Such material could be used to construct radiological weapons or dispersal devices.

Given tight controls on chemicals which can be used to produce weapons of mass destruction, terrorists are also more likely to turn to commercially available toxic industrial chemicals to make crude devices, sourcing and potentially using them domestically to avoid scrutiny at borders.

Crude chemical and biological weapons and radiological weapons are unlikely to present a risk of mass casualties, but they could spread mass panic and have a significant economic impact if used in densely populated areas. Preying on deep-

seated public fears of radioactivity and disease, they stand to have a disproportionate psychological impact on civilian populations. Similar motivations might lead terrorists towards using conventional means to attack nuclear and chemical manufacturing facilities.

Intangible technology transfer

Tracking goods and equipment presents a unique set of problems, but tracking expert knowledge relevant to weapons of mass destruction is even more difficult.

A particular concern is the increasing number of researchers and students applying to undertake postgraduate courses of study or research that can offer access to knowledge with direct applicability to weapons of mass destruction development. In most cases, it is extremely difficult to distinguish between a genuine student and a 'knowledge shopper' looking to acquire specific information for a state weapons mass destruction program or terrorist organisation.

The advent of the Internet has also greatly increased the availability of information about weapons of mass destruction and, with it, the threat of proliferation through intangible technology means. The onus remains on us to educate our scientists and researchers on the need to remain vigilant in areas of dual-use technology and to ensure that any suspicious inquiries or research projects are drawn to relevant government officials' attention.

Covert break-out capability

Many countries undertake defensive chemical and biological weapons research and development, as permitted under the Chemical and Biological Weapons Conventions. Given the fine line between defensive and offensive programs, such facility effectively presents countries with a 'breakout capability'.

This is of particular concern in regions of instability, such as the Middle East, where chemical and biological weapons present more easily concealable weapons of mass destruction path than do nuclear weapons. Iran's sensitive nuclear activities, which it

has admitted conducting in secret over nearly two decades, have raised international concerns that it may be seeking to develop nuclear weapons or at least a break-out capability.

Circumvention of export controls

In recent years, export controls have become something of a victim of their success and transparency. Proliferators have learnt to reference their procurement activity against publicly available control lists of the export control regimes. They have also exploited weak links in the export control implementation and enforcement provision in countries outside the export control regimes. Some states of proliferation concern are also turning to uncontrolled, so-called precursors of precursors in sourcing their chemical weapons programs.

Of growing concern – particularly, in our region – is the potential for diversion of illicit weapons of mass destruction trade through transshipment and re-export. There have also been numerous reported instances of front companies preparing dual-use cargoes for re-export.

Among more recent measures for tackling this challenge is the Proliferation Security Initiative. As an informal forum for cooperation between countries sharing non-proliferation goals, the Proliferation Security Initiative is an effective practical tool for disrupting weapons of mass destruction-related trade within existing international and domestic law. It has received strong endorsement from UN Secretary General Kofi Annan as a measure for filling "a gap in our defences" and reinforces national export controls, in keeping with UNSCR 1540's call for states to take cooperative action to prevent illicit WMD trafficking.

Conclusion

In summary, existing and emerging challenges posed by increasingly determined proliferators broadly comprise:

- non-compliance with international non-proliferation obligations

- . weapons of mass destruction and the terrorist threat
- . illicit weapons of mass destruction trade and secondary proliferation
- . and balancing the peaceful use of nuclear technology with proliferation risks.

To maintain effectiveness into the future, export control arrangements and other measures to guard against proliferation of WMD – both at the national and regime level – will need to address these challenges in diverse and forward-thinking ways.

In the first instance, export control systems will need to ensure that their control lists keep pace with advances in technology with weapons of mass destruction applications and the increasing availability of such technology.

They will also need to consider additional measures for complementing control lists to catch intangible technology transfers and domestic sourcing by terrorists. These measures will necessarily draw on the national experience of countries, especially in commodity identification, regulation and tracking, risk management, interagency coordination, information sharing arrangements with cooperating countries and resource allocation to enforcement.

Given the global nature of the threat posed by the proliferation of weapons of mass destruction and its wide-ranging implications for national security, one thing remains certain. The success of export control will continue to depend on the combined commitment of as large a number of countries as possible.