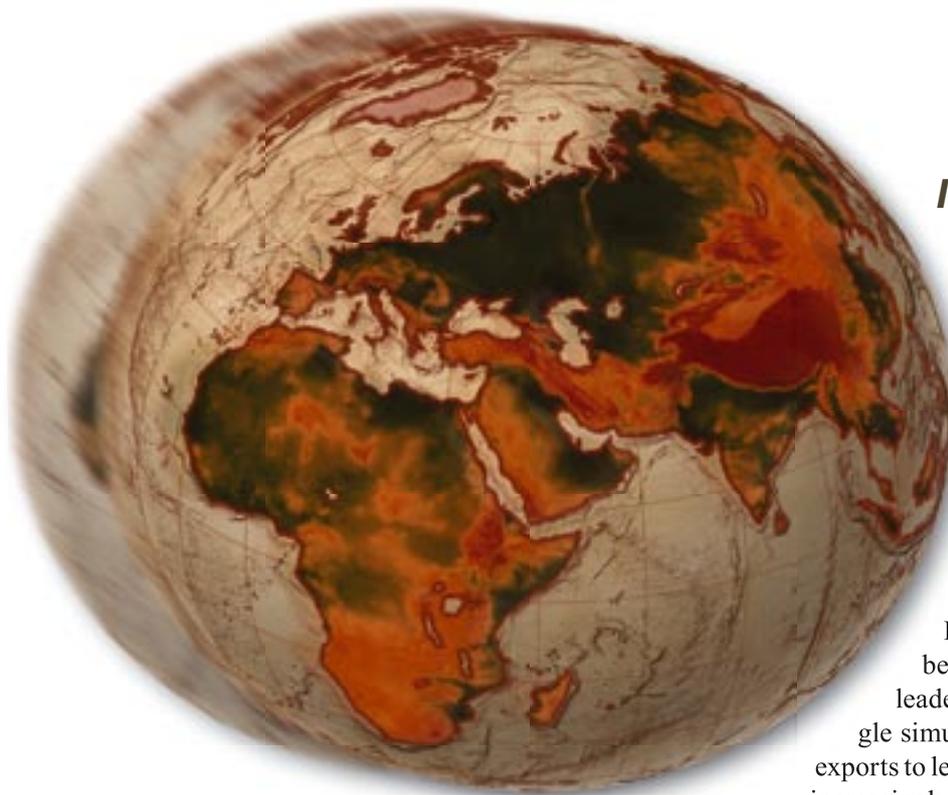


Nuclear Technology ***& the Developing World***

by Kathleen Walsh



In a globalizing world economy, stronger proliferation controls are in everyone's best interests

Many of today's proliferation concerns are not new phenomena. Rather, they are familiar problems exacerbated by accelerating levels of international trade and investment. For example, controlling sensitive exports has become more complicated as officials, industry leaders, and nonproliferation experts must struggle simultaneously to find ways to ensure the flow of exports to legitimate buyers and supply chain partners who increasingly span the globe.

Similarly, competitive enterprises today place a premium on rapid delivery and the speed of transactions. This in turn has increased pressures placed on officials around the world to reduce the time they spend evaluating each licensing decision, even as these assessments become more difficult as global investors move deeper into the developing world.

Furthermore, the emergence of developing economies as second-tier suppliers with the potential to transship critically sensitive technologies to third parties is another complicating factor and a consequence of the globalizing economy. Science, technology, and industry research and development activities with dual-use applications are also becoming increasingly international endeavors, facilitated through air travel, industry outsourcing, and intangible channels of communication such as the Internet.

The early 21st century has magnified the dangers posed by proliferation of weapons of mass destruction (WMD). Nonetheless, cooperative efforts to thwart this trade have grown considerably more difficult and the challenges more complicated. The ubiquitous nature of dual-use technology, the application of terrorist tactics for mass destruction on 9/11, the emergence of a more unilateralist US foreign policy, and the world's ever-expanding economic relations have all made more arduous the task of stemming proliferation of WMD, their precursors, and delivery systems.

All of these challenges have been highlighted in recent years, but it is the last of these—the changing nature of the global economy—that is perhaps least analyzed but also most essential to improving international cooperation on nonproliferation.

Simply put, as international borders become more porous as a result of free-trade arrangements, opportunities for proliferators multiply as well. Although the collection of information and intelligence to aid nonproliferation has become easier in a more open and transparent trade environment, efforts to stem proliferation have become more difficult as the means of acquiring and transporting nuclear and other WMD-related technologies have also multiplied. The recent uncovering of A.Q. Khan's vast international nuclear proliferation network and the off-the-shelf uranium enrichment technology intercepted on its way to Libya are clear evidence of the challenges that lie ahead.

As these examples suggest, existing nonproliferation tools and export control mechanisms are not up to the task of dealing with new global economic realities. IAEA Director-General Mohamed ElBaradei voiced this concern recently at the Asia-Pacific Conference on Nuclear Safeguards and Security meeting in Sydney, Australia. As he noted, "The relative ease with which a multinational illicit network could be set up and operated demonstrates clearly the inadequacy of the present export control system." Nor is it likely—absent substantial support from authorities in developing countries around the globe—that all of today's new proliferation channels can be effectively plugged.

What is needed, therefore (and has long been recognized as essential by nonproliferation advocates) is a universal norm supporting nonproliferation. But how can this goal be achieved? As with much of today's discussion about globalization, the answer may lie in China.

It is no longer *access* to advanced technology that is of primary concern. Rather, it is increasingly *the result* of such access in a globalizing economy that should concern developing States.

The People's Republic of China (PRC) has in recent years instituted wholesale reform of its export control policies, regulations, and licensing system. What is significant about these reforms is that they are being motivated in large part by economic considerations—and are not merely in response to foreign export controls and sanctions placed on China's import of some sensitive technologies. Rather, leaders in Beijing have realized that in today's new global security and economic environment, China will be unable to achieve its aspiration of becoming a major developer *and* global exporter of advanced technologies unless the PRC

has in place a more effective and comprehensive export control system. In other words, a credible proliferation control system is viewed in Beijing as a prerequisite to China becoming a high-tech economy.

In an age when information technology (IT) is spreading worldwide and driving commercial development, scientific advances, and military modernization, China's situation, though magnified, is hardly unique. Thus, this economic dynamic presents a vital opportunity for the international community to foster a new non-proliferation norm linking the interests of both developed and developing economies. In other words, it is no longer *access* to advanced technology that is of primary concern (as demonstrated by the growing number of nuclear-capable States). Rather, it is increasingly *the result* of such access in a globalizing economy that should concern developing states.

A New "Grand Bargain"

In effect, globalization and the IT revolution have provided the basis for a new, if informal, "grand bargain" that promotes the interests of all States: in exploiting IT as a means toward greater prosperity, rapid economic modernization, and knowledge-based societies, developing countries will likely find, as China has, that they require more effective proliferation controls. The latter will increasingly determine developing States' rate of high-tech development by either facilitating or undermining their export potential, particularly to Western economies (the major destination for high-tech exports).

Developing States will also wish to lessen the economic costs increasingly associated with proliferation, whether inadvertent, illicit, or in some cases State-supported. Economic costs of proliferation-related activities have risen as international counter-proliferation efforts (such as the Proliferation Security Initiative) have expanded in the aftermath of 9/11. Efforts such as these are likely to grow in number and support over time.

As a result, it is increasingly in the interest of both developing countries (seeking to bolster their high-tech development and export potential) and developed economies (seeking new low-cost investment opportunities around the world) to have in place more effective as well as harmonized, worldwide proliferation controls.

Achieving this result will certainly not address all outstanding proliferation concerns nor resolve persistent security dilemmas prompted by nuclear weapons development. But greater effort is clearly needed to study and to highlight these seemingly coinciding economic interests and to accelerate their potentially positive, near-term impact on non-proliferation. Enhanced controls instituted in response to enlightened self interest are far more likely to be enforced,

sustained, and ultimately effective than those implemented merely to meet imposed international mandates.

Looking ahead, China's rising influence in global economic and security affairs may provide an historic opportunity. The PRC could serve as a leading example to the developing world on how to institute more effective, modern export controls. Beijing has recently dealt with many of the logistical, legal, financial, institutional and technological concerns raised in attempting to institute modern export control policies, practices, regulations, and review processes. China's growing cadre of experts could aid and advise other developing countries seeking to improve their trade, border, and licensing systems in ways that also meet the demands of a global economy.

China also could play a more critical role in promoting international cooperative nonproliferation activities. Although China's reform efforts remain a work in progress, the PRC's recent entry into the Nuclear Suppliers Group and revised view of export controls as complementary to national security and sustainable economic development should help assure leaders in other developing countries that their long-term economic and security interests similarly lie in promoting nonproliferation and enhanced export controls. Libya's own recent reversal of its nuclear development efforts also reinforces the growing economic rationale for — rather than against — a nonproliferation norm among developing countries.

It is incumbent even more so, however, on the international community to recognize, promote, and engage efforts by China and other developing States to institute improved trade controls, even though these are made in the countries' own national self interest. In this endeavor, the interests of the international community and the state intersect.

Support for such activities should be given high priority in the IAEA's Technical Cooperation Programme and Nuclear Security Fund, among other international nonproliferation efforts and organizations. Although much training and assistance is available to developing countries on a bilateral and regional basis on ways to improve export controls and nuclear security, far more can be done on an international scale to help offset the costs involved in implementing basic elements of a modern export control system (e.g., computerized tracking of licenses and customs records).

Yet, recognizing the growing economic rationale that underlies the incentives and the need for enhanced, universal export controls will not suffice to effect significant change. The international community historically has been unable to summon the collective political will to act cooperatively to address new proliferation challenges until the threat of non-action has been demonstrated. The recent discoveries of proliferation to and from Iraq, Libya, North Korea and Pakistan, however, should serve this purpose, having dem-

onstrated the ease with which nuclear and other forms of proliferation can occur in today's globalized economy.

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These cases also make clear that the threat is only likely to be met through universal support for, and implementation of, nonproliferation controls. United Nations Security Council Resolution 1540 recognizes this fact as do other recent declarations, such as the June 2004 US-European Union *Declaration on the Non-Proliferation of Weapons of Mass Destruction*. But these are only first steps; they must be acted upon forthwith and not be made contingent on developing states gaining formal entry into nonproliferation control regimes.

Much of the attention of the United States and the international community is focused on counter-proliferation, preventive action, and coercive diplomacy. These efforts are intended to thwart the determination of a number of states to develop nuclear capabilities, which is both understandable and necessary given recent events.

Non-proliferation experts and officials, however, should not lose sight of new opportunities to foster a more universal non-proliferation norm, which represents the best means of preventing proliferation over the long run. Nor should economic considerations and positive, development-oriented incentives be overlooked in preparation for the NPT Review Conference, set for May 2005. If the NPT and other non-proliferation mechanisms are to effectively address 21st century security concerns, they must also respond to today's global economic realities.

Kathleen (Kate) Walsh is a Senior Associate at the Henry L. Stimson Center, a private, independent, nonpartisan, foreign and national security policy research institution in Washington, DC. Ms. Walsh is author of Foreign High-Tech Research and Development in the PRC: Implications for US-China Relations, a year-long study published by the Stimson Center in July 2003. See the project's homepage at www.stimson.org/techtransfer. E-mail: kwalsh@stimson.org