

The Iraqi situation has underlined a principle which appeared in the study, *Verification to the Year 2000*, namely, verification of treaty compliance based on a system of on-site inspection of declared facilities may make cheating considerably more difficult, but it does very little to deter covert facilities and activities from development of weapons. Individually and collectively, compliant countries need to consider the intelligence requirements needed to meet future nuclear proliferation threats. The IAEA would benefit by having its own intelligence/information assessment unit based on some form of international technical means (ITM). A future ITM, and/or a willingness on the part of countries having NTM to share more of their data, combined with strengthened inspection rights and an improved data information system bank would certainly strengthen the IAEA and any other agency associated with the UN whose function is verification of international arms control accords. ITM data could provide synergies with future IAEA "suspect site" inspections at undeclared facilities.

While the concept of nuclear rollback has not seemed feasible in the past, the examples set by seven countries have renewed interest in this concept as a solution to regional instabilities in the Middle East and Southeast Asia.* After years of research aimed at advancing a nuclear weapons option and national debate about the acquisition of such weapons for defensive purposes, Sweden formally renounced nuclear arms and signed the NPT in 1968. Prior to this decision, research had been conducted on the technical details of nuclear weapons design, a laboratory to separate small amounts of plutonium from spent nuclear fuel was constructed, and possible delivery systems for nuclear weapons were studied.

South Korea and Taiwan succumbed to U.S. diplomatic pressure and experienced nuclear rollback. Following four years of talks with the United States, the former Soviet Union, and the United Kingdom, South Africa joined the NPT in July 1991 and gave up its right to acquire

nuclear weapons. President DeKlerk attributed this decision to a dramatic change in the world order with the end of the Cold War.

Canada was the first country to renounce nuclear weapons after participating in the U.S. World War II Manhattan Project. Subsequently, Canada renounced dual-ownership of nuclear weapons, namely, the Genie missiles.

Argentina and Brazil's commitment in November 1990 in the second Foz do Iguazu Declaration to renounce the nuclear weapons option demonstrates that confidence-building measures and the existence of the Treaty of Tlatelolco have had the effect of excluding nuclear weapons from the territories of these two rival countries. In December 1991, Argentina, Brazil, and an Argentine-Brazilian Agency for Accounting and Control of Nuclear Materials (ABACC), and IAEA signed an agreement which put all of the two countries' nuclear facilities under IAEA safeguards.

According to the negotiating history of the NPT, nuclear-weapons-related research, development, fabrication, or testing activities by a non-nuclear-weapon-state party would violate the Treaty's prohibition in Article II against the "manufacture" of nuclear explosives. This suggests that the possession of non-nuclear components for nuclear weapons would constitute a violation of the NPT. This prohibition could be applied to South Africa, North Korea, Argentina, and Brazil, and the non-Russian Soviet successor states once they join the NPT.

While a full rollback of the weapons-related nuclear programs of India and Pakistan appears to be unlikely in the period between 1992 and 2002, prospects for a nuclear standstill are much better. This would require the negotiation, perhaps facilitated through the five-power conference, of a standstill agreement which would commit India and Pakistan not to assemble, test, or deploy nuclear weapons. A verification regime for the agreement, involving data exchange and on-site inspections would clearly

* Nuclear rollback is defined as the voluntary and credible renunciation of efforts to move closer to a nuclear weapons capability. Giving up a weapons-related program because of domestic revolution or defeat in war is not regarded as rollback.

