

by establishing a stronger legal basis for the Agency to act. Part 2 measures evolved into the Additional Protocol.

IAEA initiatives under its existing authority

The IAEA began to apply so-called Part 1 measures in 1995 to all states with full-scope safeguards agreements. These measures include requesting additional information on facilities that formerly contained nuclear materials subject to safeguards but no longer do so, or which are expected to do so in future; increasing the level of remote monitoring of movements of nuclear material; expanding the use of unannounced inspections; and collecting environmental samples at sites to which the Agency already has access. These efforts have been aided by the greater use of open source information, including commercial satellite imagery, as well as by intelligence provided by third parties and increased information supplied by states parties themselves.

Additional Protocols

In May 1997 the Board of Governors agreed a Model Additional Protocol to Safeguards Agreements.¹⁴ The Protocol provides for increased transparency by extending states parties' declaration and reporting obligations to the entire life cycle of a state's nuclear industries. This stretches all the way from nuclear mining and processing to the storage of nuclear waste, including the activities of private firms involved in the nuclear fuel cycle, as well as sites that house nuclear material intended for non-nuclear purposes. The Additional Protocol requires states parties to report on the production of nuclear-related equipment, nuclear-related imports and exports, nuclear fuel cycle-related research and development, and future plans for nuclear facilities.

The Additional Protocol also expands the IAEA's rights to conduct inspections of states parties' nuclear industries, most importantly through 'complementary access'. This permits the Agency to inspect any part of a declared nuclear facility, instead of only designated 'strategic points' accessible under full-scope safeguards. This can also be applied to nuclear-related sites, such as those that use unsafeguarded nuclear materials. Complementary access may be coupled with short-notice access to all facilities at a nuclear site and with the possibility of collecting environmental samples outside declared locations.

The Additional Protocol increases the IAEA's capacity to ensure that states parties' declarations are complete, as well as significantly improving its prospects for detecting undeclared nuclear material and activities. This offers a vastly improved basis for deterring a state from engaging in prohibited activities.

Integrated safeguards

The increased financial and personnel burden is a potential obstacle to the implementation of strengthened safeguards. Integrated safeguards seek to ease this problem by enhancing the efficiency of safeguards overall and in relation to particular states, thereby enabling the Agency to focus its efforts where they are needed most.¹⁵ The conceptual framework for integrated safeguards was completed in March 2002 and the development of practical approaches to implementation, including in particular countries, is continuing.

¹⁴ See INFCIRC/540 (Corrected), May 1997.

¹⁵ For a comprehensive analysis see Jill N. Cooley, 'Integrated nuclear safeguards: genesis and evolution', in *Verification Yearbook 2003*, VERTIC, London, 2003, pp. 29–44.