

UNLEASHING THE NUCLEAR WATCHDOG

STRENGTHENING AND REFORM OF THE INTERNATIONAL ATOMIC ENERGY AGENCY

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Overview



- the project
- why the IAEA and this study matter
- the IAEA in historical and contemporary context
- select agency functions and ideas for reform
- select operational aspects and ideas for reform
- conclusions



The project

- two-year project co-sponsored by CIGI and CCTC
- outgrowth of *The Future of Nuclear Energy to 2030 and its Implications for Global Governance* (2010)
- project aim: a ‘root and branch’ examination of the performance and functioning of the IAEA with a view to advancing ideas about its future
- first complete, arms-length study since Larry Scheinman’s *The IAEA and World Nuclear Order* (1987)
- focus on what the Agency can do itself within its political constraints
- study to be published in April 2012 (followed by a book)



Why the IAEA (and this study) matter

- ❑ IAEA remains the paramount instrument of global nuclear governance
- ❑ vital mediator of the nonproliferation/peaceful uses bargain
- ❑ functions and authorities continue to grow but none performed optimally
- ❑ *primes inter pares* in nuclear safeguards but promise remains unfulfilled
- ❑ handling of non-compliance cases inconsistent and less than optimal
- ❑ Fukushima: expanded role in nuclear safety
- ❑ can play an increasingly important role in nuclear security
- ❑ sputtering but still potentially potent nuclear energy revival
- ❑ preparing for nuclear disarmament



The IAEA

- Established 1957 following Eisenhower's 1953 Atoms for Peace proposal
- 1956 Statute embodies key bargain: peaceful uses (with safeguards) as nonproliferation inducement
- Mandates: promotion of peaceful uses; non-proliferation (1970 NPT); nuclear safety; nuclear security
- Structure: General Conference; Board of Governors (BOG); Director General; Secretariat, including Inspectorate
- Describes itself as:
 - An independent, intergovernmental, science and technology-based organization in the United Nations system that serves as the global focal point for nuclear cooperation*
- Located in Vienna; 2,300 employees; regular budget €305.4 million (2010) and Technical Cooperation Fund \$US85 million



Historical context — mixed fortunes

- 1963 Soviet about-face on safeguards
- 1970 Nuclear Non-Proliferation Treaty
- 1971 Comprehensive safeguards (INFCIRC/153)
- 1974 India's 'peaceful nuclear explosion'
- 1986 post-Chernobyl nuclear accident conventions
- 1991 IAEA Iraq Action Team
- 1993+ strengthened safeguards post-Iraq
- 1993 verification of South African disarmament
- 1993 DPRK verification activities
- 1993 A.Q. Khan network revealed
- 1994 verification activities in Libya
- 1994 Convention on Nuclear Safety
- 1997 Joint Convention on Spent Fuel & Radioactive Waste
- 1997 Additional Protocol
- 2001 Post-9/11 foray into nuclear security
- 2003 Further Iraq inspections
- 2011 Fukushima



Contemporary context

- perceived politicization of the Agency (intrinsic and extrinsic):
 - Cold War checks and balances in BOG replaced by G77/Western standoff over disarmament/peaceful uses
 - ElBaradei legacy
 - Bush legacy
- unresolved non-compliance cases —North Korea, Iran, Syria— souring atmosphere
- increasing demands on Agency: safeguards; nuclear security; nuclear energy revival; Nuclear Fuel Bank; Fukushima
- zero real budgetary growth since 1980s (with 2003 exception)

Agency functions

- ❑ *nuclear safeguards*
- ❑ **handling of non-compliance**
- ❑ **technical cooperation**
- ❑ **nuclear safety**
- ❑ nuclear security
- ❑ promotion of nuclear energy/nuclear applications

Safeguards

- Major strengthening since Iraq through 93+2 process:
 - ✓ Part A: measures within IAEA's existing mandate
 - ✓ Part B: Model Additional Protocol: not yet universal
- Integrated safeguards
- State-level approach; information-driven, objectives-based, not criteria-based; use of open sources, intelligence
- Safeguards Department Strategic Plan (12 years)
- 'Change management' the greatest challenge; old safeguards culture lingers
- New challenges: safeguards by design for new facilities; challenge of bulk-handling facilities



Safeguards - ideas

- Implement Strategic Plan
- Safeguards Implementation Reports: make more information available, with appropriate context, to permit all member states to 'verify'
- Ensure Agency-wide information available for state-level evaluations
- Ensure cultural change is complete by 2012
- Re-examine ideas put to ill-fated BOG Committee on Verification (Additional Protocol plus?)
- Secretariat should insist on more thorough verification of states without Additional Protocol



Handling non-compliance cases

- Attempts to 'reform' most elements of Agency's handling of non-compliance cases likely to be problematic:
 - 'politicization' of BOG: 'Spirit of Vienna' difficult to resurrect
 - unrepresentativeness of BOG: unratified Statute amendment would worsen situation by expanding membership
 - General Conference unable to fulfill role
 - role of DG: impossible to avoid personal quirks
 - in any event a political forum is required for adjudication of compliance issues
- Nonetheless efforts can and should be made to protect Secretariat from accusations of bias and/politicization

Non-compliance - ideas

- Secretariat could internally produce 'template' to guide standardization of structure, layout and terminology of non-compliance reports to Board
- Special Inspections should be tested and implemented as halfway between routine and challenge inspections
- Agency should quietly adopt an expansive interpretation of powers regarding weaponization activities (as in case of nuclear smuggling activities)

Technical Cooperation

- G77 sees it as *quid pro quo* for safeguards: funding for one roughly pegged to the other
- major donors resent implied extortion and TC's longstanding resistance to modern management practices
 - priority-setting for program as a whole, regionally and nationally
 - integration of projects into national development goals
 - quality control, post-project and sustainability assessments
- evidence of change with new head of TC, notably in transparency
- vetting of projects for safety, security, nonproliferation now established
- argument that professionalizing TC will benefit developing countries by encouraging and reassuring donors



Technical cooperation - ideas

- use increasing transparency to pursue intimated reforms: prioritization; peer review; absorptive capacity and sustainability assessments; quality control; post-implementation reviews
- Agency should stop buying equipment (obtainable commercially) and move to advisory/capacity-building role
- aside from safeguards, safety and security programs, focus TC on least developed states
- recipients should pay a portion of cost on a means-tested basis



Nuclear Safety

Increased IAEA role post-Chernobyl

- 1986 Convention on Early Notification
- 1986 Convention on Assistance
- 1994 Nuclear Safety Convention and reviews
- 1997 Joint Convention on Spent Fuel/Nuclear Waste Management
- IAEA Safety Standards and Technical Assistance, incl. peer reviews
- International Nuclear Safety Advisory Group (INSAG)
- International Nuclear Accident Liability regimes (Vienna/Paris)



Fukushima: IAEA stumbles

- Agency stumbled badly due to lack of leadership by Amano
- Incident and Emergency Response Center activated but under-resourced and ineffective
- pre-planned media strategy derailed: Agency reluctant to release information not from Japan
- Agency did not play clearinghouse role as Japan failed to trigger Accident or Emergency Assistance Conventions
- International Nuclear and Radiological Event Scale useless
- Amano has since sought to recover, prompted but Agency lost credibility and negotiating leverage



Nuclear safety - ideas

- implement Action Plan: will require leadership, funding
- upgrade emergency communications and preparedness
- pursue options for mandatory IAEA-led peer review
- increase IAEA role in peer reviews
- pursue greater cooperation with WANO
- joint IAEA/NEA initiative on global nuclear liability regime
- revise INES in cooperation with NEA
- convene international regulators meeting to establish global body
- lead effort to establish a global nuclear safety network

Agency operational aspects



- Governance
- **Management**
- Human resources
- Technology
- **Finance and budget**
- Capacity for future tasks



Management

- IAEA reputed to be one of the more effective and efficient UN organizations
- 2002 Marnett management consultants report praised reformist inclination but saw 'systems stress' and an 'individualist organizational culture'
- recommended 'One House' approach; Results-Based Management; a Change Management Strategy
- lip-service paid to these concepts since but little action
- Agency remains 'stove-piped'; lacks modern management approaches and internal transparency; in parts too centralized (worse under Amano) and too decentralized (proliferation of programs and offices); lacks modern IT, finance and information sharing tools
- 5-Year Mid-Term Plan virtually useless for real planning purposes

Management - ideas

- all departments should craft a Strategic Plan like Safeguards Department
- commission a new, more wide-ranging and less time-constrained management consultancy review
- replace 7-year retirement rule with 'managed tenure' system (withdraw from UN Common System)
- end 'cost-free experts' system which distorts planning
- adopt transparent and flexible personnel system
- DG should seek flexibility to offer inducements to attract top quality personnel
- pursue current IT reforms to improve in-house transparency and budgetary processes



Finance and budget

- Zero real growth has made Agency purportedly ‘lean and mean’ but is a blunt instrument for achieving effectiveness and efficiency
- Agency dependent on voluntary contributions and secondment of experts, including for verification
- budgetary processes opaque
- Agency ill-equipped to calculate future costs of:
 - servicing nuclear energy ‘revival’
 - safeguarding new reactor and fuel cycle technologies/facilities
 - assurances of fuel supply (including managing Fuel Bank)
 - Fissile Material Cut-Off Treaty
 - safeguarding declared excess weapons materials



Budget and finance - ideas

- fold TC and cost-free experts into regular budget as part of a budgetary bargain
- change current unsustainable 'business model' to increasingly user-pay system for: safeguards; safety and security reviews and assistance; nuclear energy plans
- proper study of projected future needs to inform budget process and satisfy major donors
- establish Contingency Fund

Conclusions and recommendations

- various initiatives to strengthen and reform currently taking place, but need constant vigilance
- increased transparency — internally and externally — is key to transforming many of the Agency's traditional deficits: safeguards, TC, management, recruitment and promotion and stakeholder support
- new, comprehensive external management study is vital
- new funding model and budget deal should be seriously examined
- study on future financial requirements should be undertaken to satisfy major funders

Strategic questions for the future

- does the governance structure, notably the BOG, need reform? can it be reformed?
- should the IAEA be broken up into promotional and regulatory parts?
- how can Agency advise on nuclear energy policy when it has no expertise in alternatives to nuclear energy?
- is the IAEA the most suitable verification organization for FMCT, or in the longer term for assisting with nuclear disarmament?