

# UNLEASHING THE NUCLEAR WATCHDOG: STRENGTHENING AND REFORM OF THE IAEA

## KEY POINTS

- The International Atomic Energy Agency (IAEA) is the nucleus of the global nuclear governance system.
- Since its establishment in 1957, the IAEA has evolved deftly, shedding unrealizable goals and adding new roles when requested, while coping with and learning from catastrophes and alarming non-compliance cases — Chernobyl, Iraq, North Korea, Iran — and adapting to tectonic international changes such as the end of the Cold War and the 9/11 attacks.
- Today, it fulfills irreplaceable functions in the areas of nuclear safeguards, nuclear safety and the promotion of the peaceful uses of nuclear energy, and is steadily developing a role in nuclear security.
- The Agency has maintained a reputation for technical proficiency and effectiveness, despite (or perhaps because of) zero real growth imposed on it for much of the past 27 years.
- The IAEA can thus be regarded as a “bargain” for international peace and security; if it did not exist it would have to be invented.
- Nonetheless, the Agency is in need of both strengthening overall and reform in some areas.
- In recent years, the Agency has suffered increasing politicization of its governing bodies, become embroiled in a protracted compliance dispute with Iran and faltered in its response to the Fukushima disaster.
- In addition, like any 55-year-old entity, the Agency faces “legacy” issues — notably in its management and administration, use of technology, financing and “public diplomacy.”
- The IAEA also faces significant external challenges: avoiding non-compliance surprises by exploiting new technologies to detect undeclared nuclear activities; preparing for the uncertain trajectory of nuclear energy post-Fukushima; gearing up for equally uncertain roles in verifying nuclear disarmament; meeting stakeholders’ expectations of improved transparency and accountability; and making ends meet in a period of international financial stringency.
- Above all, the Agency needs the renewed support of all its stakeholders, but especially its member states, in depoliticizing the Agency’s governing bodies; complying fully with their obligations; providing the organization with the necessary legal and other authorities; and contributing, in cash and kind, to all of the Agency’s activities.



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## **STRENGTHENING AND REFORM OF THE IAEA PROJECT**

CIGI's Strengthening and Reform of the International Atomic Energy Agency project is conducted in partnership with the Canadian Centre for Treaty Compliance (CCTC) at the Norman Paterson School of International Affairs, Carleton University, Ottawa. The project is directed by Trevor Findlay, Senior Fellow at CIGI and Director of the CCTC.



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## **INTRODUCTION**

The IAEA is the principal multilateral organization mandated by the international community to deal with nuclear issues. Established in 1957 and based in Vienna, it is essentially the nucleus around which all other parts of the global nuclear governance system revolve. The IAEA has attributes and roles that cannot be matched by other organizations, groups of states or individual states, no matter how powerful or influential:

- It is a standing, multilateral organization, with near universal membership and a science and technology orientation.
- Its nuclear safeguards system and associated verification activity, including in the service of the 1968 Nuclear Non-Proliferation Treaty (NPT) and nuclear weapon-free zones, is unparalleled.
- Its legitimacy and credibility allow it to oversee the formulation and dissemination of global nuclear non-proliferation, safety and security norms, standards and recommendations.
- Its technical competence and reputation for impartiality permit it to manage peer reviews and provide advice and assistance in the nuclear safety, security and other areas.
- Its independence from the nuclear industry allows it to be a disinterested promoter of nuclear energy for states where it is appropriate, affordable and subject to the achievement of necessary milestones.
- Its assistance to developing countries in the peaceful uses of nuclear energy is an essential component of the nuclear non-proliferation bargain.

- Its impartiality permits it to be a facilitator and, in some cases, an active driver of treaty implementation across a wide spectrum of nuclear issues.
- It plays a unique role in fostering a truly international nuclear community.

The organization has, in many respects, evolved deftly over the past 55 years, shedding unrealizable visions, seizing new opportunities and handling with aplomb several international crises into which it has been drawn. Its Secretariat's technical competence and professionalism are highly regarded by the international community. The IAEA is widely viewed as one of the most effective and efficient in the UN family of organizations. Zero real budgetary growth has forced the Agency to stay relatively compact and to continuously seek efficiencies.

Yet, in spite of this well-deserved reputation and its apparently starry prospects, the Agency remains relatively underfunded, its powers significantly hedged and its technical achievements often overshadowed by political controversy. The IAEA has not been provided with the latest technologies and adequate human resources. Despite considerable strengthening, its enhanced nuclear safeguards system is only partly mandatory, and there is substantial room for improvement, especially in detecting undeclared activities. The Agency has failed in the past to detect, by its own means, serious non-compliance by Iraq, Iran and Libya with their safeguards agreements and, by extension, with the NPT (although it was the first to detect North Korea's non-compliance). Most recently, the Agency missed Syria's attempt to illicitly construct a nuclear reactor. Notwithstanding the increasing influence of its recommended standards and guides, the IAEA's safety and security powers remain entirely non-binding and its substantive role continues to be

hamstrung by states' sensitivity to sovereignty and secrecy, and by its own lack of capacity. Many states have shown a surprising degree of ambiguity towards supporting the organization — both politically and financially. The politicization of its governing bodies has increased alarmingly in recent years, crimping their potential to lead the Agency.

## NEED FOR STRENGTHENING AND REFORM CONFIRMED

CIGI's June 2012 report, *Unleashing the Nuclear Watchdog: Strengthening and Reform of the IAEA*, based on more than two years of research, consultations and interviews, confirms that while the IAEA does not need dramatic overhaul, it does need strengthening and reform — in particular respects. Although many of the failings of the Agency alluded to above come from the environment in which it operates and are largely beyond its control, it has, nonetheless, not always taken advantage of all the authorities and capacities that it does have, and it has sometimes failed to seize opportunities staring it in the face. Like all venerable organizations, the Agency also suffers from a number of long-standing legacy issues that need fixing.

The following conclusions were reached for the IAEA's key programs — safeguards, safety, security and promotion of the peaceful uses of nuclear energy:

- Nuclear safeguards have been considerably strengthened in recent years, but current efforts to implement new approaches and develop new technologies, especially to detect undeclared activities, and change the old safeguards culture need to be intensified.
- The Agency's role in fostering improved nuclear safety is well established and set to grow following

the Fukushima disaster, but remains hobbled by member states' reluctance to commit to mandatory measures and provide adequate resources.

- The Agency's emergency response capabilities produced mixed outcomes during the Fukushima disaster and need careful reconsideration and extra resources.
- The Agency's role in the sensitive area of nuclear security, although growing, tends to be modest and supportive of external efforts, but it has great long-term potential given the likely ephemeral nature of other current international arrangements; the Secretariat needs to rapidly equip itself appropriately and member states must resource this activity properly.
- Technical Cooperation (TC) has long been under-managed, under-resourced and over-exploited by some member states; current reform efforts should be sustained and extended.

There are also a number of governance, managerial and administrative challenges facing the Agency:

- The governing bodies have seen a dissipation of the "spirit of Vienna" resulting from sharpened political divisions between developed and developing countries — especially over compliance (notably the Iran case), verification and peaceful uses.
- The Agency's leadership has struggled to find the correct balance between taking the initiative as an "independent" organization and necessary acquiescence to member states' disparate and evolving demands, especially over non-compliance controversies.
- The Secretariat faces some long-standing management issues, including: insufficient strategic

planning; a flat management structure; inconsistent practices and quality control across departments; programmatic stovepiping; a proliferation of programs, projects and mechanisms; and inadequate personnel policies.

- As a result of zero real budgetary growth, the Agency's infrastructure, technology — including information technology (IT)—and human resources have deteriorated, and the adoption of modern management tools has been delayed (although steps are underway to address all of these).
- Intra-agency barriers to communication, transparency and information sharing have persisted.
- The Agency has not communicated successfully with all of its stakeholders — including the media, the general public, the nuclear industry, the international development community and even member states.

## **PREPARING FOR FUTURE CHALLENGES**

In addition to meeting current expectations, the Agency also needs to prepare itself for longer-term challenges, which are likely to include the following:

- Given that verification is never 100 percent effective and is likely to be needed in perpetuity, and that certain states may still risk non-compliance, the Agency's safeguards and other verification capacities need constant enhancement, especially for detecting undeclared activities.
- The Agency's roles in nuclear safety and security will, by their very nature, likewise always be works-in-progress.

- New special verification mandates may arise or be resurrected at any time, as in the cases of Iran, North Korea and Syria.
- The Agency is likely to be offered a role in verifying steps towards global nuclear disarmament, beginning with a Fissile Material Cut-off Treaty and assistance with bilateral US/Russia cuts.
- Despite Fukushima, runaway climate change may induce rapid demand for nuclear electricity and a deluge of requests for the Agency's advisory and assistance services; additional numbers and types of nuclear reactors and nuclear fuel cycle facilities may stretch and strain nuclear safeguards.

## INCREASED FUNDING AND MANAGING EXPECTATIONS

While the report does not put a dollar or euro figure on what is required, it is an inescapable conclusion that the Agency is significantly underfunded, considering its growing responsibilities and the expectations increasingly being placed on it. Fukushima has reinforced this conclusion. In almost all cases, strengthening and reform will require additional resources; hence the importance of a grand budgetary bargain along the lines proposed.

One of the Agency's major challenges is to meet the expectations of its member states and other nuclear stakeholders, which are often unrealistic. By being more transparent, open and honest about the functions it can and cannot fulfill, and more diligent in providing convincing justification for funding increases in particular programs, the Agency may be able to attenuate this problem. This is especially important at a time of global financial stringencies. The Agency should also beware of setting unrealizable expectations

for itself: it should not describe itself as the hub, central point or focal point of a particular realm unless it is truly able to fulfill such functions.

## THE INDISPENSABLE ROLE OF MEMBER STATES

There should be no illusions about the difficulty of achieving agreement on major proposals for strengthening and reform. Although there are some reforms that the DG and Secretariat can initiate themselves, in almost every case, reforms will require at least the tacit support of member states, if not active political support and funding. In most cases, change will only be achievable if all the players work in tandem. Several proposals would require the excruciating job of amending the Statute. In many instances, a balance will need to be struck between cost, feasibility and member states' sensitivities about intrusiveness, confidentiality and sovereignty. The newly emerging powers, those with greater political and financial clout and growing nuclear energy industries such as Brazil, China, India, Russia and South Korea, should play a greater role in governing, managing, supporting and funding the Agency than they have in the past. But with that privilege comes the responsibility to empower the Agency appropriately, and not have it serve the ends of individual states.

While the IAEA is often loftily described as objective and independent, in reality it is only as objective and independent as its member states allow it to be. Those observers who decry the lack of action by the Agency in particular areas of its work or see an allegedly distorted set of priorities or inappropriate trade-offs, need to identify who is ultimately responsible: often it is a member state or a group of member states. Member states may, and do, legitimately disagree

on mandates, priorities, programming, funding, staffing and technology, in addition to sensitive issues such as verification and compliance. They also less legitimately seek to interfere in Agency processes like staff recruitment and placement, try to undermine initiatives they disagree with and, as major funders, seek undue influence. Missions in Vienna accredited to the IAEA range from the tiny and needy to the large and all pervasive. While the Agency should be fair and impartial in its dealing with its member states, it cannot be expected to please all of them all of the time.

## PROPOSALS FOR STRENGTHENING AND REFORM

Reform and strengthening are already taking place in a number of areas of the IAEA's operations. Unless otherwise indicated, *Unleashing the Nuclear Watchdog* endorses such efforts and, in many instances, recommends that they be pursued with even greater vigour. The report also identifies a raft of other possibilities, both major and minor, for improving the Agency's performance in the short to medium term.

The following list represents the final cut — the most important steps, stripped of qualifiers and diplomatic niceties — that are recommended. This list seeks to pinpoint where responsibility lies for taking each step, whether with member states individually, or collectively through the General Conference (GC) or the Board of Governors (BoG), the Director General (DG) or the Secretariat.

## MAJOR RECOMMENDATIONS FOR STRENGTHENING AND REFORM

**For member states collectively (represented in the GC or BoG):**

- **Governance:** Hold the GC every two years; scrap expansion of the BoG; open all seats to all member states elected regionally.
- **Management:** Limit the DG to two four-year terms; approve the appointment of a single Deputy DG; commission a proper, wide-ranging external management consultant report.
- **Nuclear safety:** Fully implement the 2011 post-Fukushima Draft Nuclear Safety Action Plan and fund it appropriately.
- **Peaceful uses:** Dedicate TC solely to the least-developed countries.
- **Funding:** Negotiate a budgetary grand bargain that resolves multiple legacy issues, including bringing TC and nuclear security into the regular budget and ending the "shielding" system and refunds to member states; establish a contingency fund and IAEA endowment; fully capitalize the Major Capital Investment Fund; and fund staff health liabilities.

**For individual member states or groups of states:**

- **Geneva Group (the mostly Western countries that pay most of the IAEA's budget):** Replace automatic zero real growth advocacy with a needs-based approach.
- **United States (the largest funder):** Pay assessed contribution early in the IAEA's budgetary year.
- **Other major countries (especially Brazil, China, India, South Korea and Russia):**

Assume greater responsibility for governing and funding the Agency, starting with matching the United States' 2010 Peaceful Uses Initiative, which pledged significantly increased funding.

#### For the DG:

- **Management:** Avoid over-centralizing authority in the DG's office; appoint a single deputy and create a new third tier of management; develop an in-house strategic plan; seek increased flexibility in personnel policies, especially recruitment; break down departmental stovepiping; and increase transparency and openness.
- **Nuclear safety:** Continue to promote and implement the post-Fukushima Action Plan; continue to pursue mandatory IAEA-led peer review; encourage nuclear regulators to establish an international body; and lead an effort to establish a global nuclear safety network.
- **Nuclear security:** Initiate biannual nuclear security conferences at the IAEA, as successor to the nuclear security summits, and upgrade the Office of Nuclear Security to a department with additional regular budgetary support and expertise.
- **Non-compliance:** Formalize standardized terminology and approaches, and reinforce review team processes for controversial, high-profile non-compliance and verification reports.

#### For the Secretariat:

- **Safeguards:** Fully implement the Safeguards Department's Strategic Plan; continue to enhance capabilities for detecting non-declared activities, weaponization, nuclear smuggling and illicit technology transfers; and make Safeguards Implementation Reports public.

- **Nuclear safety:** Continue to promote and fully implement the post-Fukushima Action Plan; review and strengthen emergency response, including emergency database and communications strategy; and institutionalize cooperation on environmental radioactivity monitoring with the Preparatory Commission for the Comprehensive Test-Ban-Treaty Organization.
- **TC:** Continue to improve transparency, efficiency, accountability and sustainability; redirect the program to the least-developed states; and encourage safety, safeguards and security enhancement projects.
- **Management:** Institute modern personnel procedures for recruitment, management, assessment, counselling and career planning, and pursue the most modern management approaches, including risk management, in all parts of the Agency's operations.
- **Technology:** Continue renovation of the Agency's IT capabilities as a priority.
- **Infrastructure:** Continue to pursue modernization of the Agency's Seibersdorf laboratories, and ensure continuing maintenance and upgrading as required.
- **Funding:** Improve presentation of the "business" case for increased funding in priority areas, and develop a Resource Mobilization Strategy.
- **Public diplomacy:** Develop more effective outreach strategies, including the Agency's website, especially for nuclear emergencies and crises.

## CONCLUSION

Although the IAEA is one of the more competent and dynamic of the organizations that comprise the “UN family,” it clearly needs strengthening and, in some respects, reform. Over the more than half-century of its existence, the Agency has assumed an identity and presence in international affairs that no member state can gainsay. In some circumstances, it has room for independent manoeuvre, especially by balancing the interests of various member states. It can, in some

respects, also strengthen and reform itself. Yet, given that states established the IAEA, pay for it, provide its personnel and other resources, and grant it the necessary powers, privileges and immunities, it is the member states, in the end, that control the Agency’s destiny. It is, therefore, to the member states that we must look to trigger and sustain lasting strengthening and reform — and thus unleash the nuclear watchdog.



IAEA fact-finding mission assesses Fukushima nuclear power plant. (UN Photo by Greg Webb)

## ABOUT CIGI

The Centre for International Governance Innovation is an independent, non-partisan think tank on international governance. Led by experienced practitioners and distinguished academics, CIGI supports research, forms networks, advances policy debate and generates ideas for multilateral governance improvements. Conducting an active agenda of research, events and publications, CIGI's interdisciplinary work includes collaboration with policy, business and academic communities around the world.

CIGI's current research programs focus on four themes: the global economy; the environment and energy; global development; and global security.

CIGI was founded in 2001 by Jim Balsillie, then co-CEO of Research In Motion, and collaborates with and gratefully acknowledges support from a number of strategic partners, in particular the Government of Canada and the Government of Ontario.

Le CIGI a été fondé en 2001 par Jim Balsillie, qui était alors co-chef de la direction de Research In Motion. Il collabore avec de nombreux partenaires stratégiques et exprime sa reconnaissance du soutien reçu de ceux-ci, notamment de l'appui reçu du gouvernement du Canada et de celui du gouvernement de l'Ontario.

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“It is an exceptionally good piece of work that covers the key issues comprehensively and captures the key nuances that shape the Agency and its work. I am vastly impressed by the author’s command of the institution and the subject matter.”

*Mark Gwozdecky, Canadian ambassador to Jordan and former IAEA spokesperson*

“*Unleashing the Nuclear Watchdog* is insightful, comprehensive and accessible. It will be useful to people who are in a position to make changes, and useful to analysts who want to understand both how the IAEA works and how it doesn’t work.”

*Martin B. Malin, Executive Director, Project on Managing the Atom, Belfer Center for Science and International Affairs, Harvard Kennedy School, Harvard University*

“This is a very strong piece of work, with a very good descriptive review of the Agency’s activities, a vigorous discussion and numerous interesting recommendations.”

*James Keeley, Associate Professor, Department of Political Science, University of Calgary*

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## INTERACTIVE FEATURE: UNLEASHING THE NUCLEAR WATCHDOG

To accompany this report, CIGI has made available an online interactive feature. It contains video interviews with leading experts, including CIGI Senior Fellow Trevor Findlay, on nuclear safety and security, an historic timeline of events that have impacted the IAEA and excerpts from this publication.

The online interactive feature highlights key points, including areas of strength and weakness for the IAEA. View the “Unleashing the Nuclear Watchdog” online interactive feature by visiting [www.cigionline.org/interactive/iaea](http://www.cigionline.org/interactive/iaea).

## PUBLICATIONS

### THE FUTURE OF NUCLEAR ENERGY TO 2030 AND ITS IMPLICATIONS FOR SAFETY, SECURITY AND NONPROLIFERATION: FINAL REPORT

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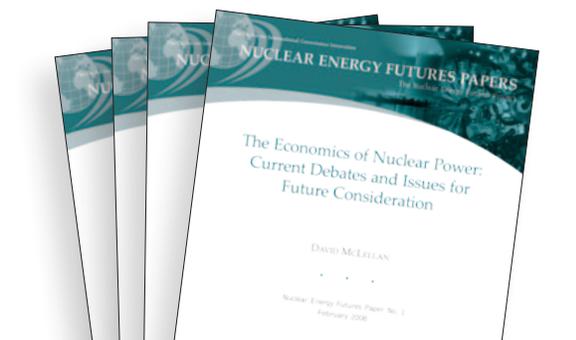
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