Non-proliferation obligations and other instruments

Action 24:
safeguards to all source or special fissionable material in all peaceful nuclear activities in the States parties in accordance with the provisions of article III of the Treaty.

Action 25:
The Conference, noting that 18 States parties to the Treaty have yet to bring into force comprehensive safeguards agreements, urges them to do so as soon as possible and without further delay.

Action 26:
The Conference underscores the importance in complying with the non-proliferation obligations, addressing all compliance matters in order to uphold the Treaty’s integrity and the authority of the safeguards system.

Action 27:
The Conference underscores the importance of resolving all cases of non-compliance with safeguards obligations in full conformity with the IAEA statute and the respective legal obligations of Member States. In this regard, the Conference calls upon Member States to extend their cooperation to the Agency.

Action 28:
The Conference encourages all States parties, which have not yet done so to conclude and to bring into force additional protocols as soon as possible and to implement them provisionally pending their entry into force.

Action 29:
The Conference encourages IAEA to further facilitate and assist the States parties in the conclusion and entry into force of comprehensive safeguards agreements and additional protocols. The Conference calls on States parties to consider specific measures that would promote the universalization of the comprehensive safeguards agreements.

Action 30:
The Conference calls for the wider application of safeguards to peaceful nuclear facilities in the nuclear-weapon States, under the relevant voluntary offer safeguards agreements, in the most economic and practical way possible, taking into account the availability of IAEA resources, and stresses that comprehensive safeguards and additional protocols should be universally applied once the complete elimination of nuclear weapons has been achieved.

Action 31:
The Conference encourages all States parties with small quantities protocols which have not yet done so to amend or rescind them, as appropriate, as soon as possible.
Action 32:
The Conference recommends that IAEA safeguards should be assessed and evaluated regularly. Decisions adopted by the IAEA policy bodies aimed at further strengthening the effectiveness and improving the efficiency of IAEA safeguards should be supported and implemented.

Action 33:
The Conference calls upon all States parties to ensure that IAEA continues to have all political, technical and financial support so that it is able to effectively meet its responsibility to apply safeguards as required by article III of the Treaty.

Action 34:
The Conference encourages States parties, within the framework of the IAEA statute, to further develop a robust, flexible, adaptive and cost effective international technology base for advanced safeguards through cooperation among Member States and with IAEA.

Action 46:
The Conference encourages IAEA to continue to assist the States parties in strengthening their national regulatory controls of nuclear material, including the establishment and maintenance of the State systems of accounting for and control of nuclear material, as well as systems on regional level. The Conference calls upon IAEA Member States to broaden their support for the relevant IAEA programmes.

Non-proliferation obligations
The actions in this section involve some interpretation difficulties. For example, action 24 calls for the application of the IAEA Comprehensive Safeguards Agreement (CSA) in accordance with the provisions of article III of the NPT. Article III states that safeguards are to be "applied on all source or special fissionable material in all peaceful nuclear activities within the territory of such State, under its jurisdiction, or carried out under its control anywhere." In this context, states are debating whether safeguards should be interpreted as they were set out in 1968 or in a more comprehensive manner to incorporate the Additional Protocol (AP), for which some states call. As no agreement has been reached by NPT states parties on the interpretation of safeguards in today's context, this report's analysis is based on the view that the safeguards obligations represent the CSA unless the AP is specifically referenced.
6 out of 18 remaining states have put a comprehensive safeguards agreement into force since 2010

Action 25 specifically calls upon those 18 non-nuclear-armed states that have not yet entered into force CSAs to proceed in doing so. Since May 2010, new CSAs have entered into force in six of those 18 states, leaving only 12 countries without these agreements in place.2

Out of those twelve, only five countries – Eritrea, Liberia, Micronesia, Sao Tome and Principe, and Somalia – have not yet submitted CSAs for the consideration of the IAEA Board of Governors (BoG).

The role of the IAEA
The Director General of the IAEA repeatedly calls on states that have not already done so to sign and ratify CSAs and APs. In every introductory statement to the IAEA BoG he reports on the progress made, the signatory of new agreements, developments in the cases of non-compliance, and the IAEA’s role.3

In its mid-term strategic plan 2012–2017, the IAEA states that it will continue to “encourage Member States to conclude comprehensive safeguards agreements which are in accordance with relevant obligations, and additional protocols, and will provide associated assistance where requested.”4 Further, it will provide states with the necessary guidance and training.5

Non-proliferation cases of concern
According to the IAEA, safeguards are successfully implemented in the majority of member states. There are mainly three countries – the DPRK, Iran, and Syria – in which the IAEA says safeguard obligations are not fully complied with.

Democratic People’s Republic of Korea
The DPRK no longer considers itself a party to the NPT and therefore argues that it has no obligations under any safeguards agreement. Since April 2009 the IAEA has not had inspectors in the DPRK and since December 2002 it has not been permitted to implement safeguards.6

The IAEA’s resolutions GC(55)/RES/13, GC(56)/RES/14, GC(57)/RES/14, GC(58)/RES/15 adopted at the 2011, 2012, 2013, and 2014 IAEA General Conferences, urge the DPRK not to conduct further nuclear tests and to comply with its obligations under the UN Security Council (UNSC) resolutions. They also call on the DPRK to come into full compliance with the NPT and to cooperate promptly with the IAEA.

The Director General has urged the DPRK in his introductory statements to BoG meetings to implement all relevant non-proliferation obligations. He also presented a comprehensive report on the IAEA’s previous verification activities in the DPRK in September 2011.7 In his statement to the BoG on 10 September 2012 the Director General declared that apparently progress has been made in the construction of a light water reactor, yet without access to the site the IAEA could not fully assess the situation. He called on the DPRK to fully comply with its obligations.8

In February 2012, the new leader Kim Jong-Un announced a moratorium on nuclear and missile tests as well as on uranium enrichment. In exchange, the US government pledged to provide food aid. This agreement became obsolete following the launch of a rocket in April 2012.9 In May 2012, the new constitution adopted by the DPRK proclaimed its status as “nuclear-armed nation”.10

On 12 December 2012, the DPRK carried out a new rocket launch. As a response, the UNSC adopted a new resolution (UNSCR 2087). Following that development, the DPRK carried out a third nuclear test on 12 February 2013.11 The Comprehensive Test-ban Treaty Organisation (CTBTO) detected the test and measured it to be 5.0 in magnitude, around twice as large as the 2009 test (4.52) and considerably larger than the 2006 test (4.1). The location was indicated to be the same as the two previous tests by the DPRK.

In response to the nuclear test of DPRK, the UNSC unanimously adopted resolution 2094 (2013) on 7 March 2013 strongly condemning the test and maintaining sanctions previously imposed along with additional restrictions.12 Governments further condemned the nuclear test at the 2013 and 2014 NPT Preparatory Committees and the 2013 and 2014 UN General Assembly’s First Committee meetings.

In his statement to the IAEA BoG in November 2014 the Director General reiterated his concern with the nuclear programme of the DPRK. The IAEA to this point does not have access to the Yongbyon site and can therefore not determine whether the reactor has been re-started. The Director General repeated his previous calls upon the DPRK to comply with its obligations.
under relevant UNSC resolutions and to cooperate promptly with the IAEA by implementing the safeguard agreement as well as resolving all outstanding issues.\textsuperscript{11}

Throughout 2014, the DPRK has continued and, according to experts, increased its testing of ballistic missiles and rocket artillery.\textsuperscript{14}

**Iran**

**Joint Plan of Action**

**Agreement between:** Iran and E3+3 (China, France, Germany, Russian Federation, United Kingdom, United States)

**Date:** 24 November 2013 for a period of six months, after two extensions the new deadline is 20 June 2015.

**Key commitments:**

- Iran - not enrich uranium over 5%, dilute half of its stock of 20% enriched uranium stock, not build new locations for the enrichment of uranium, and allow for enhanced monitoring by the IAEA.
- E3+3 - suspend US and EU sanctions, refrain from imposing new nuclear-related sanctions by the UN Security Council, EU and the US, and a financial channel to facilitate humanitarian trade for Iran's domestic needs will be established.

In the case of Iran, the IAEA has not found Iran to be in non-compliance with its NPT obligations and continues to verify the non-diversion of declared nuclear materials and activities at Iran's nuclear facilities, in accordance with Iran's CSA. However, the IAEA asserts that Iran has “not fully implemented its binding obligations”\textsuperscript{16} and that the “full implementation of these obligations is needed to establish international confidence in the exclusively peaceful nature of Iran's nuclear programme.”\textsuperscript{16}

Since the 2010 NPT RevCon, three resolutions regarding Iran's nuclear programme have been adopted: IAEA BoG resolution GOV/2011/69, IAEA BoG resolution GOV/2012/50, and UNSC resolution SC/1929.

Since the 2010 NPT Action Plan, more than 20 reports have been produced by the IAEA on Iran, in which concerns about the exclusively peaceful nature of Iran's nuclear programme have been raised. The most prominent IAEA report was the one produced in November 2011, which included a 14-page annex summarizing all of the outstanding issues between the IAEA and Iran. Since May 2010, the IAEA has held fifteen rounds of talks with Iranian officials with the overall objective of resolving all outstanding issues. While these talks did not reach the goal of getting an agreement on a “structured approach to resolving all outstanding issues,” the IAEA and Iran came to an agreement during a meeting in November 2013 to “strengthen their cooperation and dialogue” to that end. In this context the parties adopted a “Framework for Cooperation” containing a set of six initial practical measures to be taken within three months.\textsuperscript{17} On 21 January 2014, discussions started on the second phase of the “Framework for Cooperation.”\textsuperscript{18} In February 2014, seven further practical measures were agreed.\textsuperscript{19} All of the initial thirteen steps have been implemented.\textsuperscript{20} From the agreement on five further measures established as part of the third step under the “Framework for Cooperation” in May 2014, two measures remain outstanding.\textsuperscript{21}

On the diplomatic front, the P5+1 or E3/EU+3 – China, France, Russia, the UK, the US, and Germany – met with Iran on multiple occasions since May 2010.\textsuperscript{22} Following a period of intensive diplomacy, the E3/EU+3 and Iran reached an agreement during negotiations in Geneva on 20–24 November 2013.\textsuperscript{23} In the “Joint Plan of Action” (JPA), Iran among other things committed itself to not enrich uranium over 5%, to dilute half of its stock of 20% enriched uranium stock to less than 5%, to not build any new locations for the enrichment of uranium, to suspend activities at its heavy water reactor in Arak, and to allow for enhanced monitoring by the IAEA. In return, the E3/EU+3 agreed to among other things suspend some US and EU sanctions against Iran and to refrain from imposing new nuclear-related sanctions by the UNSC, EU, and the US. Furthermore, a financial channel for humanitarian trade for Iran's domestic needs will be established, using Iranian oil revenues held abroad (US$ 4.2 billion).\textsuperscript{24} The IAEA has been requested to verify implementation of the agreement.

On 20 January 2014, the IAEA reported that Iran was implementing its commitments according to the JPA.\textsuperscript{25} As a consequence, the EU and US started to lift some of their unilateral sanctions.\textsuperscript{26} Later that year, in July when the participating states could not reach an agreement, the timeframe for the implementation of the JPA was extended until 24 November 2014.\textsuperscript{27} Due to an elusive agreement at that time, the deadline was again postponed until 30 June 2015.\textsuperscript{28}

In November 2014, the IAEA confirmed that Iran was on track for implementing the JPA, while some concerns regarding outstanding practical measures remained concerning mainly the possible military dimensions.\textsuperscript{29} Reportedly, since the latest extension, “limited progress” has been made in discussions among the participating states.\textsuperscript{30}

**Syria**

Since the 2010 NPT RevCon, four reports have been produced on the alleged nuclear complex in Syria by the IAEA. The most significant was presented to the BoG on 24 May 2011, where the Director General came to the conclusion that the destroyed building in Dair Alzour “was very likely a nuclear reactor”. Following this report, the IAEA BoG adopted a resolution\textsuperscript{31} on 9 June 2011 in which it determined that Syria's "undeclared construction of a nuclear reactor" and failure to provide design information on the Dair Alzour site "constitutes non-compliance..."
with its obligations under its Safeguards Agreement with the Agency in the context of Article XII.C of the Agency's Statute.” It calls on Syria to “remedy urgently its non-compliance” with its obligations under the safeguard agreements, to respond to the Director General’s request for updated reporting, and to resolve all outstanding questions.

In November 2011 the Director General wrote a letter inviting Syria to address the remaining outstanding issues regarding the full implementation of its safeguard agreement. Syria answered on 20 February 2012 asking for understanding of “the difficult circumstances and the difficult situation that Syria is passing through” and pledging continued cooperation with the IAEA. Later that year the IAEA carried out a physical inventory verification at the Miniature Neutron Source Reactor on 14 June 2012 and continue to monitor different “locations of safeguards relevance.” However, the ongoing civil war and chemical weapons use and subsequent destruction programme in Syria has resulted in a temporary shift of priorities towards resolving the conflict first.

Since then, no further information has been made available.

Assessing and evaluating IAEA safeguards

IAEA initiatives

The IAEA mid-term plan 2012–2017 includes a section on “Strengthening the effectiveness and improving the efficiency of the Agency’s safeguards and other verification activities.” It outlines the IAEAs plan to further develop a state-level approach to the planning, implementation, and evaluation of the safeguards activities.

The department of safeguards itself has developed a long-term strategic plan from 2012–2023. It addresses the conceptual framework of the IAEA safeguards system, its legal authority, the technical capabilities, and the available resources. The three main long-term strategic objectives are to:

1. Deter the proliferation of nuclear weapons by detecting early the misuse of nuclear material or technology; and
2. Provide credible assurances that states are honouring their safeguards obligations; and
3. Contribute to nuclear arms control and disarmament by responding to requests for verification and other technical assistance associated with related agreements and arrangements; and

The IAEA Enhancing Capabilities of the Safeguards Analytical Services (ECAS) project was initiated in 2010. In his introductory statement to the BoG on 6 June 2011, the IAEA Director General announced the new Clean Laboratory at Seibersdorf “is now fully operational and has already analysed its first samples.” The work on a Nuclear Material Laboratory is in progress and scheduled to be completed in 2014. The scope of the ECAS project has been extended to include additional activities. Additional costs will be met through extra-budgetary funding. In September 2013 the new Nuclear Material Laboratory was inaugurated and infrastructure and security upgrades will continue into 2015.

From 20–24 October 2014, the IAEA hosted the 12th International Safeguards Symposium: Linking Strategy, Implementation and People to enable dialogue and information exchange as well as promote cooperation with IAEA stakeholders to make progress towards achieving the IAEAs strategic objectives laid out in the long term strategic plan.

Relevant decisions of the General Conference

In September 2010, the IAEA General Conference adopted as usual a resolution on “Strengthening the effectiveness and improving the efficiency of the safeguards system and the application of the Model Additional Protocol.” Due to procedural questions, the 2011 IAEA General Conference was not able to adopt the resolution on strengthening the IAEA safeguards.

However in 2012 the IAEA General Conference again adopted the resolution during its plenary meeting in September. Nonetheless, during the 2012 IAEA General Conference, the debate was very controversial on the “state-level approach” and operational paragraph 21 of the resolution “requests the Secretariat to report to the Board of Governors on the conceptualization and development of the State-level concept for safeguards.” This report by the Director General was presented in August 2013, but was met with some criticism and did not meet the expectations of all member states. During the 2013 September BOG and GC meetings, the Secretariat was tasked with submitting a Supplementary Document about the state-level concept in advance of the 2014 GC. In addition, the Secretariat listed eight questions raised by member states and decided to hold technical meetings in early 2014 as a further part of the consultation process. In 2013 the resolution was again adopted, including this time three paragraphs on nuclear disarmament.

After consultations on the state-level concept with member states, the Director General introduced a supplementary document to the 2013 report on the Conceptualization and Development of Safeguards Implementation at the State Level to the Board of Governors in August 2014. In his address to the board, Mr. Amano stressed that the state-level concept “does not, and will not, entail the introduction of any additional rights or obligations” for either states or the IAEA, nor will it result in any modification in the interpretation of existing rights and obligations. So far, state-level safeguards have been implemented in 53 states. During the following GC, states adopted the safeguards resolution, which welcomes the assurances laid out in the supplementary document and outlines the continued cooperative approach to any further development and implementation of state-level approaches.
Financial support
While the annual budget for the IAEA safeguards and nuclear verification programme does increase each year, these increases do not represent a significant change in financial support. The financial contribution for safeguards will remain the same and the increased budget will most likely be offset by inflation, changes in exchange rates, and other similar factors.

Technical improvements
Since 2010, the IAEA has continued to work on the IAEA Safeguards Information System and Reengineering Project to increase the effectiveness and efficiency of information processing by replacing the current information system with a modern one. The Secretariat has also continued to utilize high-resolution commercial satellite-based sensors to improve its ability to monitor nuclear sites and facilities worldwide. Germany has reported on taking steps to facilitate IAEA access to commercially available German satellite imagery. In April 2013, as part of the IAEA Nuclear Energy Series, the Agency has published a technical report on the role of “safe-guards by design” of nuclear facilities, which relates to the consideration of safeguards throughout the lifetime of a nuclear facility.

Additionally, the IAEA plans to upgrade its IT system to allow for an improved implementation of safeguards and reduce the vulnerability to cyber attacks.

Other initiatives and organisations

On 12 November 2013 three ESARDA working groups held a joint meeting on the IAEA state-level concept with representatives of the IAEA, EURATOM, the European Commission’s Joint Research Centre, and other interested actors.

After its first report on “Optimizing the IAEA Safeguard System” published in 2011, the Centre for International Security and Arms Control Studies in Paris (CESIM) has, in cooperation with Switzerland, published a second report on December 2012 on “Strengthening cooperation between the IAEA and State or Regional systems of accounting for and control of nuclear material.”

The Model AP to the IAEA CSA requires states to provide the IAEA with information covering all aspects of a states’ nuclear fuel cycle. It also ensures IAEA short-notice inspector access to all buildings on a nuclear site and other nuclear-related locations, information on the manufacture and export of sensitive nuclear-related technologies, and inspection mechanisms for manufacturing and import locations. It also enables the IAEA to use the most advanced verification technologies.

As of 1 March 2015, 124 states have additional protocols in force. 21 states have signed an AP but have still not put it into force. Two states have been approved by the BOG, but have not signed the AP. Since May 2010, the AP has entered into force for 23 additional states parties.
Small Quantities Protocol (SQP)

States with little or no nuclear material may conclude, in addition to the CSA, a protocol “which holds in abeyance the implementation of most of the detailed safeguard procedures of comprehensive safeguards agreements.” In 2005, the IAEA BoG decided to modify the standard text of the SQP and change the criteria for eligibility. States with existing or planned facilities are no longer eligible for an SQP. States with a revised SQP in force need to report on their material and inform the IAEA about changes to enable it to conduct verification activities in the field. Since May 2010, fifteen states have amended their SQPs while 46 states still have not yet amended or rescinded their SQP. In addition, two countries have signed a new SQP, two states have rescinded their SQP, and four more SQPs have entered into force.

Voluntary Offer Agreements

For the five nuclear-armed states under the NPT, special safeguards agreements have been established, since they are not required by the NPT to accept safeguards. The so-called Voluntary Offer Safeguard Agreements (VOAs) between the IAEA and a nuclear-armed state usually follow the format of INFCIRC/153 (Corr.) but vary in the scope of materials and facilities covered. They also include the possibility of withdrawing materials and facilities for safeguards. No changes or amendments to the VOAs have been reported since the 2010 NPT Action Plan was adopted.
References:

1. Treaty on the Non-Proliferation of Nuclear Weapons, Art. III.
2. Andorra, Republic of the Congo, Montenegro, Mozambique, Pakistan, and only on limited number of installations, Togo, and Vanuatu. A few states have signed but not yet put into force the CSA: Benin, Cape Verde, Djibouti, Guinea, Guinea Bissau and Timor-Leste. For Equatorial Guinea CSAs have been approved by the Board of Governors but have not yet been signed. Others – Eritrea, Liberia, Micronesia, São Tomé & Principe and Somalia – have not yet submitted CSAs to the IAEA Board of Governors for its consideration.
5. Ibid
7. Statement by IAEA Director General Y. Amano, Introductory Statement to Board of Governors, 6 June 2011.
8. Statement by IAEA Director General Y. Amano, Introductory Statement to Board of Governors, 10 September 2012.
12. UNSC/10934, 7 March 2013.
15. According to the IAEA, these obligations include the implementation of the provision of the additional protocol; the implementation of the modified Code 3.1 of the subsidiary arrangement general part to the safeguard agreement; the suspension of enrichment related activities; suspension of heavy water related activities; and clarification of the remaining outstanding issue on the possible military dimensions of Iran’s nuclear programme.
22. The meetings were held in December 2010 in Geneva; in January 2011 in Istanbul; in June 2012 in Moscow; in February 2013 in Almaty; in March 2013 in Istanbul; in October 2013 and November 2013 in Geneva; in February, March, April, May, June, July, and November 2014 in Vienna; in December 2014 in Geneva; and in January 2015 in Geneva, Paris and Istanbul.
24. Ibid


69. IAEA (INFCIRC/540 (Corrected)), Model Protocol Additional to the Agreement(s) between state(s) and the International Atomic Energy Agency for the Application of Safeguards, September 1997.


72. Belarus, Benin, Cameroon, Cape Verde, Côte d’Ivoire, Djibouti, Guinea, Guinea-Bissau, Honduras, Iran, Kiribati, Lao P.D.R., Liechtenstein, Malaysia, Myanmar, Senegal, Serbia, Thailand, Timor-Leste, Tunisia, and Zambia.

73. Algeria and Cambodia.

74. Andorra, Antigua and Barbuda, Bahrain, Bosnia and Herzegovina, Republic of the Congo, Costa Rica, Denmark (Greenland), Gambia, India (on civilian nuclear separation), Iraq, Kyrgyzstan, Mexico, Montenegro, Morocco, Mozambique, Namibia, Republic of Moldova, St. Kitts and Nevis, Swaziland, Togo, United Arab Emirates, Vanuatu and Vietnam.


76. IAEA Board of Governors (GOV/INF/276/Mod.1); IAEA (GOV/INF/276/Mod.1), The Standard Text of Safeguards Agreements in connection with the Treaty on the Non- Proliferation of Nuclear Weapons; and IAEA (GOV/INF/276/Mod.1/Corr.1), February 2006.


78. Andorra, Antigua and Barbuda, Cambodia, El Salvador, Gabon, Gambia, Guatemala, Kuwait, Mauritania, New Zealand, Panama, Republic of Moldova, San Marino, Swaziland, and Zimbabwe.

79. Afghanistan, Barbados, Belize, Bhutan, Bolivia, Brunei Darussalam, Cameroon, Dominica, Ethiopia, Fiji, France, Grenada, Guyana, Haiti, Jordan, Kiribati, Kyrgyzstan, Lao P.D.R., Maldives, Mongolia, Myanmar, Namibia, Nauru, Nepal, Netherlands, Oman, Papua New Guinea, Paraguay, St Kitts and Nevis, Saint Lucia, St Vincent and the Grenadines, Samoa, Saudi Arabia, Sierra Leone, Solomon Islands, Sudan, Suriname, Togo, Tonga, Trinidad and Tobago, Tuvalu, United Arab Emirates, United Kingdom, United Sates of America, Yemen and Zambia.

80. Guinea and Vanuatu.

81. Ghana and Nigeria.

82. DRC, Montenegro, Mozambique, Vanuatu.
