# A. Safeguards Statement for 2018<sup>1, 2</sup>

In 2018, safeguards were applied for 182 States<sup>3, 4</sup> with safeguards agreements in force with the Agency. The Secretariat's findings and conclusions for 2018 are reported below with regard to each type of safeguards agreement. These findings and conclusions are based upon an evaluation of all safeguards relevant information available to the Agency in exercising its rights and fulfilling its safeguards obligations for that year.

1. One hundred and twenty-nine States had both comprehensive safeguards agreements and additional protocols in force<sup>5</sup>:

- (a) For 70 of these States<sup>4</sup>, the Secretariat found no indication of the diversion of declared nuclear material from peaceful nuclear activities and no indication of undeclared nuclear material or activities. On this basis, the Secretariat concluded that, for these States, all nuclear material remained in peaceful activities.
- (b) For 59 of these States, the Secretariat found no indication of the diversion of declared nuclear material from peaceful nuclear activities. Evaluations regarding the absence of undeclared nuclear material and activities for each of these States remained ongoing. On this basis, the Secretariat concluded that, for these States, declared nuclear material remained in peaceful activities.

2. Safeguards activities were implemented for 45 States with comprehensive safeguards agreements in force, but without additional protocols in force. For these States, the Secretariat found no indication of the diversion of declared nuclear material from peaceful nuclear activities. On this basis, the Secretariat concluded that, for these States, declared nuclear material remained in peaceful activities.

3. As of the end of 2018, 11 States Parties to the Treaty on the Non-Proliferation of Nuclear Weapons (NPT) had yet to bring into force comprehensive safeguards agreements with the Agency as required by Article III of that Treaty. For these States Parties, the Secretariat could not draw any safeguards conclusions.

4. Three States had safeguards agreements based on INFCIRC/66/Rev.2 in force, requiring the application of safeguards to nuclear material, facilities and other items specified in the relevant safeguards agreement. One of these States, India, had an additional protocol in force. For these States, the Secretariat found no indication of the diversion of nuclear material or of the misuse of the facilities or other items to which safeguards had been applied. On this basis, the Secretariat concluded that, for these States, nuclear material, facilities or other items to which safeguards had been applied remained in peaceful activities.

<sup>&</sup>lt;sup>1</sup> The designations employed and the presentation of material in this report, including the numbers cited, do not imply the expression of any opinion whatsoever on the part of the Agency or its Member States concerning the legal status of any country or territory or of its authorities, or concerning the delimitation of its frontiers.

 $<sup>^{2}</sup>$  The referenced number of States Parties to the NPT is based on the number of instruments of ratification, accession or succession that have been deposited.

<sup>&</sup>lt;sup>3</sup> These States do not include the Democratic People's Republic of Korea (DPRK), where the Agency did not implement safeguards and, therefore, could not draw any conclusion.

<sup>&</sup>lt;sup>4</sup> And Taiwan, China.

<sup>&</sup>lt;sup>5</sup> Or an additional protocol being provisionally applied, pending its entry into force.

5. Five nuclear-weapon States had voluntary offer agreements and additional protocols in force. Safeguards were implemented with regard to declared nuclear material in selected facilities in all five States. For these States, the Secretariat found no indication of the diversion of nuclear material to which safeguards had been applied. On this basis, the Secretariat concluded that, for these States, nuclear material in selected facilities to which safeguards had been applied remained in peaceful activities or had been withdrawn from safeguards as provided for in the agreements.

# **B.** Background to the Safeguards Statement and Summary

## **B.1.** Safeguards conclusions

1. The *Safeguards Statement* reflects the Secretariat's findings and conclusions resulting from the Agency's activities under the safeguards agreements in force. The Secretariat derives these conclusions on the basis of an evaluation of the results of its safeguards activities and of all other safeguards relevant information available to it. This section provides background to the *Safeguards Statement*.

#### Fact box 1. Safeguards activities overview

In 2018, there were:

- 721 (715)<sup>6</sup> facilities and 593 (583) material balance areas (MBAs) containing locations outside facilities where nuclear material is customarily used (LOFs) under safeguards;
- 212 814 (208 889) significant quantities<sup>7</sup> of nuclear material and 423.6 (432.3) tonnes of heavy water under safeguards;
- 2195 (2102) inspections, 633 (601) design information verifications and 183 (140) complementary accesses utilizing 13 611.5 (13 744) calendar-days in the field for verification<sup>8</sup>.

2. A summary of the status of safeguards agreements and other information presented below is given in Tables 1 to 5 in Section B.7.

### B.1.1. States with comprehensive safeguards agreements in force

3. Under a comprehensive safeguards agreement, the Agency has the "right and obligation to ensure that safeguards will be applied, in accordance with the terms of the agreement, on all source or special fissionable material in all peaceful nuclear activities within the territory of the State, under its jurisdiction or carried out under its control anywhere, for the exclusive purpose of verifying that such material is not diverted to nuclear weapons or other nuclear explosive devices."<sup>9</sup>

4. Comprehensive safeguards agreements consist of Part I, Part II, and Definitions. Part I consists of general provisions and Part II describes the procedures for implementing those provisions. These procedures include the record keeping and reporting obligations of the State with regard to nuclear material, nuclear facilities and LOFs. They also include procedures related to Agency access to nuclear material, nuclear facilities and LOFs.

5. The procedures set out in Part II of a comprehensive safeguards agreement include certain reporting requirements related to the export and import of material containing uranium or thorium which has not yet reached the stage of processing where its composition and purity make it suitable for fuel fabrication or for isotopic enrichment. Nuclear material which has reached that stage of processing, and any nuclear material produced at a later stage, is subject to all the other safeguards procedures specified

<sup>&</sup>lt;sup>6</sup> The numbers in parentheses provide the respective data for 2017.

<sup>&</sup>lt;sup>7</sup> Significant quantity — the approximate amount of nuclear material for which the possibility of manufacturing a nuclear explosive device cannot be excluded.

<sup>&</sup>lt;sup>8</sup> Calendar-days in the field for verification comprise calendar-days spent on performing inspections, complementary access and design information verification and on the associated travel and rest periods.

<sup>&</sup>lt;sup>9</sup> Paragraph 2 of INFCIRC/153 (Corrected).

in the agreement. An inventory of such nuclear material is established on the basis of an initial report by a State, which is then verified by the Agency and maintained on the basis of subsequent reports by the State and by Agency verification. The Agency performs its verification and evaluation activities in order to confirm that these declarations by the State are correct and complete — i.e. to confirm that all nuclear material in the State remains in peaceful activities.

#### **Small quantities protocols**

6. Many States with minimal or no nuclear activities have concluded a small quantities protocol (SQP) to their comprehensive safeguards agreement. Under an SQP based on the original standard text<sup>10</sup> submitted to the Board of Governors in 1974, the implementation of most of the safeguards procedures in Part II of a comprehensive safeguards agreement are held in abeyance as long as certain criteria are met. In 2005, the Board of Governors approved the revision<sup>11</sup> of the standard text of the SQP. This revision changed the eligibility criteria for an SQP, making it unavailable to a State with an existing or planned facility, and reduced the number of measures held in abeyance. Of particular importance is the fact that, under the revised standard text of the SQP, the requirement that the State provide the Agency with an initial inventory report and the Agency's right to carry out ad hoc and special inspections are no longer held in abeyance.

#### **Additional protocols**

7. Although the Agency has the authority under a comprehensive safeguards agreement to verify the peaceful use of all nuclear material in a State (i.e. the correctness and completeness of the State's declarations), the tools available to the Agency under such an agreement are limited. The *Model Additional Protocol*<sup>12</sup>, approved by the Board of Governors in 1997, equips the Agency with important additional tools that provide broader access to information and locations. The measures provided for under an additional protocol thus significantly increase the Agency's ability to verify the peaceful use of all nuclear material in a State with a comprehensive safeguards agreement.

# **B.1.1.1.** States with both comprehensive safeguards agreements and additional protocols in force<sup>5</sup>

## Status of implementation

8. As of 31 December 2018, 129 (127) States had both comprehensive safeguards agreements and additional protocols in force<sup>5</sup>.

9. Safeguards implementation involved, as appropriate, activities carried out in the field, at regional offices and at Agency Headquarters in Vienna. The activities at Headquarters included the evaluation of States' accounting reports and other information required under comprehensive safeguards agreements and additional protocols and the evaluation of safeguards relevant information from other sources.

#### **Deriving conclusions**

10. A safeguards conclusion that all nuclear material has remained in peaceful activities in a State is based on the Agency's finding that there are no indications of diversion of declared nuclear material from peaceful nuclear activities and no indications of undeclared nuclear material or activities in the

<sup>&</sup>lt;sup>10</sup> GOV/INF/276/Annex B.

<sup>&</sup>lt;sup>11</sup> GOV/INF/276/Mod.1 and Corr.1.

<sup>&</sup>lt;sup>12</sup> INFCIRC/540 (Corrected), Model Protocol Additional to the Agreement(s) between State(s) and the International Atomic Energy Agency for the Application of Safeguards.

State as a whole. The Agency draws such a conclusion only where a State has both a comprehensive safeguards agreement and an additional protocol in force and the evaluations described below have been completed.

11. To ascertain that there are no indications of diversion of declared nuclear material from peaceful nuclear activities in a State, the Agency needs to carry out a comprehensive evaluation of all safeguards relevant information available to it, which includes information provided by the State with regard to the design and operation of nuclear facilities and LOFs, the State's nuclear material accounting reports, the State's declarations submitted under the additional protocol and the results of the Agency's in-field activities carried out to verify the State's declarations.

12. To ascertain that there are no indications of undeclared nuclear material or activities in a State, the Agency needs to carry out an evaluation of the consistency of the State's declared nuclear programme with the results of the Agency's verification activities under the relevant safeguards agreements and additional protocols and with all other safeguards relevant information available to the Agency. In particular, the Agency needs to have:

- Conducted a comprehensive State evaluation based on all safeguards relevant information available to the Agency about the State's nuclear and nuclear-related activities (including design information on facilities and information on LOFs, declarations submitted under additional protocols, and information collected by the Agency through its verification activities and from other sources);
- Performed complementary access, as necessary, in accordance with the State's additional protocol;
- Addressed all anomalies, discrepancies and inconsistencies identified in the course of its evaluation and verification activities.

13. When the evaluations described in paragraphs 11 and 12 above have been completed and no indication has been found by the Agency that, in its judgement, would give rise to a proliferation concern, the Secretariat can draw the broader conclusion that all nuclear material in a State remained in peaceful activities. Subsequently, the Agency implements integrated safeguards — an optimized combination of safeguards measures available under comprehensive safeguards agreements and additional protocols — for that State. Due to increased assurance of the absence of undeclared nuclear material and activities for the State as a whole, the intensity of inspection activities at declared facilities and LOFs can be reduced. Integrated safeguards were implemented during 2018 for 67 (65) States.<sup>4, 13</sup>

#### **Overall conclusions for 2018**

14. On the basis of the evaluations described in paragraphs 11 and 12, the Secretariat drew the conclusions referred to in paragraph 1(a) of the *Safeguards Statement* for 70 (70) States<sup>4</sup> — Albania, Andorra, Armenia, Australia, Austria, Bangladesh, Belgium, Botswana, Bulgaria, Burkina Faso, Canada, Chile, Croatia, Cuba, Czech Republic, Denmark<sup>14</sup>, Ecuador, Estonia, Finland, Germany, Ghana,

<sup>&</sup>lt;sup>13</sup> Albania, Andorra, Armenia, Australia, Austria, Bangladesh, Belgium, Botswana, Bulgaria, Burkina Faso, Canada, Chile, Croatia, Cuba, Czech Republic, Denmark, Ecuador, Estonia, Finland, Germany, Ghana, Greece, Holy See, Hungary, Iceland, Indonesia, Ireland, Italy, Jamaica, Japan, Kazakhstan, the Republic of Korea, Kuwait, Latvia, Libya, Lithuania, Luxembourg, Madagascar, Mali, Malta, Mauritius, Monaco, Montenegro, Netherlands, New Zealand, North Macedonia, Norway, Palau, Peru, Philippines, Poland, Portugal, Romania, Seychelles, Singapore, Slovakia, Slovenia, South Africa, Spain, Sweden, Switzerland, Tajikistan, Ukraine, United Republic of Tanzania, Uruguay, Uzbekistan and Viet Nam.

<sup>&</sup>lt;sup>14</sup> This conclusion is drawn with regard to that part of Denmark which is covered by INFCIRC/193 and INFCIRC/193/Add.8, i.e. Denmark and the Faroe Islands, and to Greenland for which Denmark has concluded a separate comprehensive safeguards agreement and an additional protocol thereto (INFCIRC/176 and INFCIRC/176/Add.1, respectively).

Greece, Holy See, Hungary, Iceland, Indonesia, Ireland, Italy, Jamaica, Japan, Jordan, Kazakhstan, the Republic of Korea, Kuwait, Latvia, Libya, Liechtenstein, Lithuania, Luxembourg, Madagascar, Mali, Malta, Mauritius, Monaco, Montenegro, Netherlands<sup>15</sup>, New Zealand<sup>16</sup>, North Macedonia<sup>17</sup>, Norway, Palau, Peru, Philippines, Poland, Portugal, Romania, Seychelles, Singapore, Slovakia, Slovenia, South Africa, Spain, Sweden, Switzerland, Tajikistan, Turkey, Ukraine, United Republic of Tanzania, Uruguay, Uzbekistan and Viet Nam.

15. Because the evaluation process described in paragraph 12 had not yet been completed for 59 (57) States, the conclusion drawn for these States relates only to declared nuclear material in peaceful activities. The conclusion in paragraph 1(b) of the *Safeguards Statement* was drawn for Afghanistan, Angola, Antigua and Barbuda, Azerbaijan, Bahrain, Bosnia and Herzegovina, Burundi, Cambodia, Cameroon, Central African Republic, Chad, Colombia, Comoros, Congo, Costa Rica, Côte d'Ivoire, Cyprus, Democratic Republic of the Congo, Djibouti, Dominican Republic, El Salvador, Eswatini<sup>18</sup>, Fiji, Gabon, Gambia, Georgia, Guatemala, Haiti, Honduras, the Islamic Republic of Iran, Iraq, Kenya, Kyrgyzstan, Lesotho, Liberia, Malawi, Marshall Islands, Mauritania, Mexico, Mongolia, Morocco, Mozambique, Namibia, Nicaragua, Niger, Nigeria, Panama, Paraguay, Republic of Moldova, Rwanda, Saint Kitts and Nevis, Senegal, Serbia, Thailand, Togo, Turkmenistan, Uganda, United Arab Emirates and Vanuatu.

# **B.1.1.2.** States with comprehensive safeguards agreements in force but no additional protocols in force

#### Status of implementation

16. As of 31 December 2018, safeguards were implemented for 45 (46) States in this category. Safeguards implementation involved activities in the field and at Headquarters, including the evaluation of States' accounting reports and other information required under comprehensive safeguards agreements and the evaluation of safeguards relevant information from other sources.

#### **Deriving conclusions**

17. For a State with a comprehensive safeguards agreement, the Agency's right and obligation are as described in paragraph 3 above. Although the implementation of safeguards strengthening measures<sup>19</sup> under such an agreement have increased the Agency's ability to detect undeclared nuclear material and activities, the activities that the Agency may conduct in this regard are limited for a State without an additional protocol. Thus, the conclusion in the *Safeguards Statement* for a State with a comprehensive safeguards agreement alone relates only to the non-diversion of declared nuclear material from peaceful activities.

18. In the course of its evaluation, the Agency also seeks to determine whether there is any indication of undeclared nuclear material or activities in the State which would need to be reflected in the

<sup>&</sup>lt;sup>15</sup> This conclusion is drawn with regard only to that part of the Netherlands which is covered by INFCIRC/193 and INFCIRC/193/Add.8, i.e. the Netherlands in Europe, which excludes the Caribbean part of the Netherlands (the islands of Bonaire, Sint Eustatius and Saba), Aruba, Curaçao and Sint Maarten. The Netherlands has concluded a separate comprehensive safeguards agreement that applies to its constituent parts mentioned above (INFCIRC/229), but has not yet concluded an additional protocol thereto.

<sup>&</sup>lt;sup>16</sup> This conclusion is drawn with regard only to New Zealand which is covered by INFCIRC/185 and INFCIRC/185/Add.1; it is not drawn for the Cook Islands and Niue, which are also covered by INFCIRC/185, but not by INFCIRC/185/Add.1.

<sup>&</sup>lt;sup>17</sup> The name "North Macedonia" has replaced the former name "The former Yugoslav Republic of Macedonia" as of 15 February 2019.

<sup>&</sup>lt;sup>18</sup> The name "Eswatini" has replaced the former name "Swaziland" as of 29 June 2018.

<sup>&</sup>lt;sup>19</sup> Such measures include the early provision of design information, environmental sampling and the use of satellite imagery.

*Safeguards Statement*. However, without the measures provided for in the *Model Additional Protocol* being implemented, the Agency is not able to provide credible assurance of the absence of undeclared nuclear material and activities for the State as a whole.

#### Syrian Arab Republic

19. In August 2018, the Director General submitted a report to the Board of Governors entitled *Implementation of the NPT Safeguards Agreement in the Syrian Arab Republic* (GOV/2018/35) covering relevant developments since the previous report in August 2017 (GOV/2017/37). The Director General informed the Board of Governors that no new information had come to the knowledge of the Agency that would have an impact on the Agency's assessment that it was very likely that a building destroyed at the Dair Alzour site was a nuclear reactor that should have been declared to the Agency by Syria.<sup>20</sup> In 2018, the Director General renewed his call on Syria to cooperate fully with the Agency in connection with unresolved issues related to the Dair Alzour site and other locations. Syria has yet to respond to these calls.

20. On the basis of the evaluation of information provided by Syria, and all other safeguards relevant information available to it, the Agency found no indication of diversion of declared nuclear material from peaceful activities. For 2018, the Agency concluded for Syria that declared nuclear material remained in peaceful activities.

#### **Overall conclusions for 2018**

21. On the basis of the evaluation performed and as reflected in paragraph 2 of the *Safeguards Statement*, the Secretariat concluded that for the 45 (46) States<sup>21</sup>, declared nuclear material remained in peaceful activities. This conclusion was drawn for Algeria, Argentina, Bahamas, Barbados, Belarus, Belize, Bhutan, the Plurinational State of Bolivia, Brazil, Brunei Darussalam, Dominica, Egypt, Ethiopia, Grenada, Guyana, Kiribati, Lao People's Democratic Republic, Lebanon, Malaysia, Maldives, Myanmar, Nauru, Nepal, Oman, Papua New Guinea, Qatar, Saint Lucia, Saint Vincent and the Grenadines, Samoa, San Marino, Saudi Arabia, Sierra Leone, Solomon Islands, Sri Lanka, Sudan, Suriname, Syrian Arab Republic, Tonga, Trinidad and Tobago, Tunisia, Tuvalu, the Bolivarian Republic of Venezuela, Yemen, Zambia and Zimbabwe.

## B.1.2. States Parties to the NPT without comprehensive safeguards agreements in force

22. As of 31 December 2018, 11 (12) States Parties to the NPT had yet to bring comprehensive safeguards agreements into force pursuant to Article III of the Treaty.

<sup>&</sup>lt;sup>20</sup> The Board of Governors, in its resolution GOV/2011/41 of June 2011 (adopted by a vote) had, inter alia, called on Syria to urgently remedy its non-compliance with its NPT safeguards agreement and, in particular, to provide the Agency with updated reporting under its safeguards agreement and access to all information, sites, material and persons necessary for the Agency to verify such reporting and resolve all outstanding questions so that the Agency could provide the necessary assurance as to the exclusively peaceful nature of Syria's nuclear programme.

 $<sup>^{21}</sup>$  In addition, this conclusion is drawn for those territories of the Netherlands referred to in footnote 15 for which the broader conclusion is not drawn – i.e. the Caribbean part of the Netherlands (the islands of Bonaire, Sint Eustatius and Saba), Aruba, Curaçao and Sint Maarten; and the Cook Islands and Niue, which are covered by New Zealand's comprehensive safeguards agreement but not by its additional protocol – see footnote 16. It is also drawn for France's territories covered by the safeguards agreement reproduced in INFCIRC/718 between France, EURATOM and the Agency pursuant to Additional Protocol I to the Treaty of Tlatelolco; and for the United States of America and the Agency pursuant to Additional Protocol I to the Treaty of Tlatelolco.

#### **Overall conclusions for 2018**

23. As indicated in paragraph 3 of the *Safeguards Statement*, the Secretariat could not draw any safeguards conclusions for Benin, Cabo Verde, Equatorial Guinea, Eritrea, Guinea, Guinea-Bissau, Federated States of Micronesia, São Tome and Principe, Somalia, State of Palestine<sup>22</sup> and Timor-Leste.

#### B.1.3. States with safeguards agreements based on INFCIRC/66/Rev.2 in force

24. Under safeguards agreements based on INFCIRC/66/Rev.2, the Agency applies safeguards in order to ensure that nuclear material, facilities and other items specified under the safeguards agreement are not used for the manufacture of any nuclear weapon or to further any military purpose, and that such items are used exclusively for peaceful purposes and are not used for the manufacture of any nuclear explosive device.

#### Status of implementation

25. As of 31 December 2018, safeguards were implemented at facilities in India, Israel and Pakistan pursuant to safeguards agreements based on INFCIRC/66/Rev.2. India has an additional protocol to its INFCIRC/754 safeguards agreement in force.

#### **Deriving conclusions**

26. The conclusion described in paragraph 4 of the *Safeguards Statement* is reported for these three States, and relates to the nuclear material, facilities and other items to which safeguards were applied. To draw such a conclusion in respect of these States, the Agency evaluates all safeguards relevant information available to it, including verification results and information about facility design features and operations.

#### **Overall conclusions for 2018**

27. On the basis of the results of its verification and evaluation activities, the Secretariat concluded that the nuclear material, facilities or other items to which safeguards were applied in India, Israel and Pakistan remained in peaceful activities.

#### B.1.4. States with both voluntary offer agreements and additional protocols in force

28. Under a voluntary offer agreement, the Agency applies safeguards to nuclear material in those facilities that have been selected by the Agency from the State's list of eligible facilities in order to verify that the material is not withdrawn from peaceful activities except as provided for in the agreement. In selecting facilities under voluntary offer agreements for the application of safeguards, the Agency takes such factors into consideration as: (i) whether the selection of a facility would satisfy legal obligations arising from other agreements concluded by the State; (ii) whether useful experience may be gained in implementing new safeguards approaches or in using advanced equipment and technology; and (iii) whether the cost efficiency of Agency safeguards may be enhanced by applying safeguards, in the exporting State, to nuclear material being shipped to States with comprehensive safeguards agreements in force. By implementing measures under the additional protocol in these five States with voluntary offer agreements, the Agency also seeks to obtain and verify information that could enhance the safeguards conclusions in States with comprehensive safeguards agreements in force.

<sup>&</sup>lt;sup>22</sup> The designation employed does not imply the expression of any opinion whatsoever concerning the legal status of any country or territory or of its authorities, or concerning the delimitation of its frontiers.

#### Status of implementation

29. During 2018, safeguards were implemented at facilities selected by the Agency in the five States with voluntary offer agreements in force: China, France, the Russian Federation, the United Kingdom of Great Britain and Northern Ireland (United Kingdom) and the United States of America.

## **Deriving conclusions**

30. The conclusion contained in paragraph 5 of the *Safeguards Statement* is reported for the five States with voluntary offer agreements in force in which safeguards were applied to nuclear material in selected facilities. To draw the safeguards conclusion, the Agency evaluates all safeguards relevant information available to it, including verification results and information about facility design features and operations.

#### **Overall conclusions for 2018**

31. On the basis of the results of its verification and evaluation activities, the Secretariat concluded for China, France, the Russian Federation, the United Kingdom and the United States of America that nuclear material to which safeguards had been applied in selected facilities remained in peaceful activities or had been withdrawn as provided for in the agreements. There were no such withdrawals from the selected facilities in France, the Russian Federation, the United Kingdom and the United States of America.

# **B.2.** Verification and Monitoring in the Islamic Republic of Iran in light of United Nations Security Council Resolution 2231 (2015)

32. Throughout 2018, the Agency continued to verify and monitor the nuclear-related commitments of the Islamic Republic of Iran (Iran) under the Joint Comprehensive Plan of Action (JCPOA). Iran continued to provisionally apply the additional protocol to its safeguards agreement in accordance with Article 17(b) of the Additional Protocol, pending its entry into force. During the year, the Director General submitted four reports to the Board of Governors and in parallel to the United Nations Security Council entitled *Verification and monitoring in the Islamic Republic of Iran in light of United Nations Security Council resolution 2231 (2015)* (GOV/2018/7, GOV/2018/24, GOV/2018/33 and GOV/2018/47).

## **B.3.** Democratic People's Republic of Korea

33. In August 2018, the Director General submitted a report to the Board of Governors and General Conference entitled *Application of Safeguards in the Democratic People's Republic of Korea* (GOV/2018/34–GC(62)/12), which provided an update of developments since the Director General's report of August 2017 (GOV/2017/36-GC(61)/21). The Director General provided a further update in his introductory statement to the Board of Governors on 22 November 2018.

34. Since 1994, the Agency has not been able to conduct all necessary safeguards activities provided for in the DPRK's NPT Safeguards Agreement. From the end of 2002 until July 2007, the Agency was not able — and, since April 2009, has not been able — to implement any verification measures in the DPRK, and, therefore, the Agency could not draw any safeguards conclusion regarding the DPRK.

35. In 2018, no verification activities were implemented in the field but the Agency continued to monitor developments in the DPRK's nuclear programme and to evaluate all safeguards relevant information available to it, including open source information and satellite imagery.

36. The Executive Group and the DPRK Team, created in August 2017<sup>23</sup>, have intensified their efforts. The DPRK Team has increased monitoring of the DPRK's nuclear programme through more frequent collection of satellite imagery and has enhanced its readiness to promptly undertake any activities it may be requested to conduct in the DPRK. Actions to enhance readiness have included: formulation and updating of verification approaches and procedures; identification of potential inspectors for initial activities in the DPRK and provision of specialized training for them; and ensuring the availability of appropriate verification technologies and equipment to support the initial activities. All of these efforts related to the Agency's enhanced readiness have been conducted within available resources, including extrabudgetary contributions from a number of Member States. Once a political agreement has been reached among the countries concerned, the Agency is ready to return to the DPRK in a timely manner, if requested to do so by the DPRK and subject to approval by the Board of Governors.

37. In 2018, the Agency continued to monitor the Yongbyon site. The Agency observed indications that were consistent with the operation of the Yongbyon Experimental Nuclear Power Plant (5MW(e)) reactor until mid-August 2018. From mid-August through November 2018 there were indications of intermittent reactor operation, and in December 2018 there were no indications of reactor operation. Starting in the first quarter of 2018, activities were observed near the Kuryong River, which may have been related to changes to the cooling system for the light water reactor (LWR) under construction and/or the 5MW(e) reactor. Between late-April and early-May 2018, there were indications of the operation of the steam plant that serves the Radiochemical Laboratory. The duration of the steam plant's operation was not sufficient to have supported the reprocessing of a complete core from the 5MW(e) reactor. At the Yongbyon Nuclear Fuel Rod Fabrication Plant there were indications consistent with the use of the reported centrifuge enrichment facility located within the plant. At the LWR, the Agency observed activities consistent with the fabrication of reactor components and the possible transfer of these components into the reactor building.

38. The Agency has evaluated all safeguards relevant information, including satellite imagery and open source information, about a group of buildings within a security perimeter in the vicinity of Pyongyang. The size of the main building and the characteristics of the associated infrastructure are not inconsistent with a centrifuge enrichment facility. The timeline of construction is not inconsistent with the reported uranium enrichment programme of the DPRK<sup>24</sup>.

39. The Agency has not had access to the Yongbyon site or to other locations in the DPRK. Without such access, the Agency cannot confirm either the operational status or configuration/design features of the facilities or locations, or the nature and purpose of the activities conducted therein.

40. The continuation and further development of the DPRK's nuclear programme during 2018, including activities in relation to the Yongbyon Experimental Nuclear Power Plant (5 MW(e)) reactor, the use of the building which houses the reported centrifuge enrichment facility and the construction at the LWR, are clear violations of relevant UN Security Council resolutions, including resolution 2375 (2017), and are deeply regrettable.

## B.4. Areas of difficulty in safeguards implementation

41. Progress was made in 2018 to address areas of difficulty in implementing safeguards. Improvements have been observed in the provision of nuclear material accountancy reports.

<sup>&</sup>lt;sup>23</sup> GOV/2017/36-GC(61)/21, para.12.

 $<sup>^{24}</sup>$  GOV/2011/53-GC(55)24, para. 30. In addition, GOV/2011/53-GC(55)/24, para. 50, noted reports on the provision of centrifuge enrichment technology to the DPRK and indications that the DPRK could produce UF<sub>6</sub> prior to 2001.

42. The performance and effectiveness of State and regional systems of accounting for and control of nuclear material (SSACs/RSACs) have significant impacts upon the effectiveness and efficiency of Agency safeguards implementation. In 2018, some States had still not established SSACs, which are required under comprehensive safeguards agreements. Moreover, not all State authorities responsible for safeguards implementation have the necessary legal authority, resources, technical capabilities or independence from nuclear facility or LOF operators to implement the requirements of safeguards agreements and additional protocols. Furthermore, some State authorities do not provide sufficient oversight of nuclear material accounting and control systems at nuclear facilities and LOFs to ensure the required accuracy and precision of the data transmitted to the Agency.

43. For Agency inspectors to conduct their verification activities effectively, they must be able to access installations and perform the verification activities within agreed timeframes. In 2018, access restrictions to locations, material, facility records and other relevant documentation were experienced in a number of States. In addition, difficulties have been encountered in some States in relation to customs clearance of Agency safeguards equipment.

44. In accordance with the decision of the Board of Governors in September 2005, States which have not amended or rescinded their SQPs should do so as soon as possible. At the end of 2018, 35 (37) States<sup>25</sup> had operative SQPs that had yet to be amended.

45. The Agency is addressing these issues with and providing assistance to State and regional authorities, as appropriate.

# **B.5.** Strengthening the effectiveness and improving the efficiency of safeguards

46. The Agency has continued to improve the efficiency of safeguards implementation while maintaining or strengthening its effectiveness. This improvement has been essential since the quantities of nuclear material and other items under safeguards and the number of facilities under safeguards has increased in recent years. In contrast, the Agency's financial resources have not risen commensurately. It should be noted that while a number of facilities are being retired from service, this will not immediately reduce verification effort as safeguards continue to be applied to those facilities until their status is confirmed by the Agency as decommissioned for safeguards purposes.

47. Some of the factors contributing to strengthening the effectiveness and improving the efficiency of safeguards are shown in Fact box 2.

48. As a result of these improvements, safeguards have been implemented more effectively in the field and have been complemented by enhanced and improved activities at Headquarters.

49. In July 2018, the Director General submitted a report to the Board of Governors entitled Implementation of State-level Safeguards Approaches for States under Integrated Safeguards – Experience Gained and Lessons Learned (GOV/2018/20).

<sup>&</sup>lt;sup>25</sup> The States with SQPs based on the original standard text are: Barbados, Belize, Bhutan, the Plurinational State of Bolivia, Brunei Darussalam, Cameroon, Dominica, Ethiopia, Fiji, Grenada, Guyana, Haiti, Kiribati, Kyrgyzstan, Lao People's Democratic Republic, Maldives, Mongolia, Myanmar, Namibia, Nauru, Nepal, Oman, Papua New Guinea, Saint Lucia, Saint Vincent and the Grenadines, Samoa, Saudi Arabia, Sierra Leone, Solomon Islands, Sudan, Suriname, Trinidad and Tobago, Tuvalu, Yemen and Zambia. In addition, there is an SQP based on the original standard text to the safeguards agreement reproduced in INFCIRC/718 between France, EURATOM and the Agency pursuant to Additional Protocol I to the Treaty of Tlatelolco and to the safeguards agreement reproduced in INFCIRC/229 between the Netherlands and the Agency pursuant to the NPT and Additional Protocol I to the Treaty of Tlatelolco.

50. During 2018, the Agency developed State-level safeguards approaches (SLAs) for five States with a comprehensive safeguards agreement. This brings the total number of States with a comprehensive safeguards agreement for which an SLA has been developed to 130. These 130 States hold 97% of all nuclear material (by significant quantity) under Agency safeguards in States with a comprehensive safeguards agreement and include 67 States<sup>13</sup> with a comprehensive safeguards agreement and include 67 States<sup>13</sup> with a comprehensive safeguards agreement and include 67 States<sup>13</sup> with a comprehensive safeguards agreement and an additional protocol in force for which the broader conclusion has been drawn (of which 17 are States with an SQP); 35 States<sup>26</sup> with a comprehensive safeguards agreement and an additional protocol in force for which the broader conclusion has yet to be drawn (of which 24 are States with an SQP); and 28 States<sup>27</sup> with a comprehensive safeguards agreement with an SQP in force but no additional protocol in force. Previously, an SLA was developed for one State<sup>28</sup> with a voluntary offer agreement and an additional protocol in force.

51. Member State Support Programmes (MSSPs) and the Standing Advisory Group on Safeguards Implementation (SAGSI) continued to make substantial contributions to Agency safeguards through the provision of assistance and advice, respectively.

52. The Agency completed the planned modernization of safeguards information technology (IT) on schedule on 15 May 2018, within scope and budget. The modernization, completed under the MOSAIC project, has delivered more than 20 tailored tools and applications to users in the Department of Safeguards.

53. Decommissioning of the former Safeguards Analytical Laboratory (SAL) was completed in 2018. Following formal exchange of letters between the IAEA and the Austrian Federal Ministry of Sustainability and Tourism, the building in which the SAL was located was returned to the Austrian Institute of Technology on 6 December 2018.

<sup>&</sup>lt;sup>26</sup> Afghanistan, Antigua and Barbuda, Azerbaijan, Bosnia and Herzegovina, Burundi, Cambodia, Central African Republic, Chad, Congo, Côte d'Ivoire, Cyprus, Democratic Republic of the Congo, Eswatini, Fiji, Gabon, Gambia, Georgia, Guatemala, Kyrgyzstan, Malawi, Marshall Islands, Mongolia, Mozambique, Namibia, Niger, Nigeria, Republic of Moldova, Rwanda, Saint Kitts and Nevis, Senegal, Thailand, Togo, Turkmenistan, Uganda and Vanuatu.

<sup>&</sup>lt;sup>27</sup> Barbados, Belize, Bhutan, the Plurinational State of Bolivia, Brunei Darussalam, Dominica, Ethiopia, Grenada, Guyana, Kiribati, Lao People's Democratic Republic, Maldives, Myanmar, Nauru, Nepal, Papua New Guinea, Saint Lucia, Saint Vincent and the Grenadines, Samoa, San Marino, Sierra Leone, Solomon Islands, Suriname, Tonga, Trinidad and Tobago, Tuvalu, Zambia and Zimbabwe.

<sup>&</sup>lt;sup>28</sup> United Kingdom.

#### Fact box 2. Strengthening the effectiveness and improving the efficiency of safeguards

In 2018, significant progress was made, as follows:

- A comprehensive safeguards agreement with an SQP based on the revised standard text and an additional protocol entered into force for Liberia.
- An additional protocol also entered into force for Serbia, bringing the total number of States with additional protocols in force to 134<sup>4</sup>, and one State had its additional protocol provisionally applied, pending its entry into force.
- Paraguay, Tonga and the United States of America amended their operative SQPs and Malaysia rescinded its SQP.
- At the end of the year, 58 (55) States<sup>29</sup> had SQPs in force based on the revised standard text.
- The Agency developed State-level safeguards approaches for five States.
- In July 2018, the Director General submitted a report to the Board of Governors entitled Implementation of State-level Safeguards Approaches for States under Integrated Safeguards – Experience Gained and Lessons Learned (GOV/2018/20).
- The Agency continued to develop its strategic planning processes with an emphasis on effective implementation.
- The Agency held its 13<sup>th</sup> Symposium on International Safeguards, 'Building Future Safeguards Capabilities' in November. The event was mostly funded through extrabudgetary contributions; it attracted more than 800 participants.
- With the completion of the MOSAIC project, the Agency enhanced the performance and security of the safeguards information system. In the course of the project, over 20 tailored tools and applications were completed and delivered to users within the Department.
- In 2018, the Agency published an updated version of the Safeguards Implementation Practices Guide on Establishing and Maintaining State Safeguards Infrastructure (SVS 31).
- Peer reviews of annual implementation plans and State evaluation reports were performed within the Department.
- Actions were identified and implemented to address risks and opportunities for improvement in the quality management system (QMS).
- The coordination of the Health and Safety activities in the Department of Safeguards was strengthened to increase efficiency in ensuring that adequate safety is applied to all Agency inspectors and other officials performing activities under the safeguards agreements.
- By the end of the year, the Agency had provided an upgraded version of the protocol reporter software supporting the preparation and submission of additional protocol declarations to more than 95 States. In 2018, 46 of these States submitted declarations using this software.

<sup>&</sup>lt;sup>29</sup> The States with SQPs in force based on the revised standard text are: Afghanistan, Andorra, Angola, Antigua and Barbuda, Bahamas, Bahrain, Burkina Faso, Burundi, Cambodia, Central African Republic, Chad, Comoros, Congo, Costa Rica, Djibouti, Dominican Republic, Ecuador, El Salvador, Eswatini, Gabon, Gambia, Guatemala, Holy See, Honduras, Iceland, Kenya, Kuwait, Lebanon, Lesotho, Liberia, Madagascar, Malawi, Mali, Mauritania, Mauritius, Monaco, Montenegro, Mozambique, New Zealand, Nicaragua, North Macedonia, Palau, Panama, Paraguay, Qatar, Republic of Moldova, Rwanda, Saint Kitts and Nevis, San Marino, Senegal, Seychelles, Singapore, Togo, Tonga, Uganda, United Republic of Tanzania, Vanuatu and Zimbabwe. In addition, the United States of America has amended its SQP to the safeguards agreement reproduced in INFCIRC/366 between the United States of America and the Agency pursuant to Additional Protocol I to the Treaty of Tlatelolco.

## **B.6.** Safeguards expenditures and resources

54. During 2018, the activities of Major Programme 4 — Nuclear Verification — were funded from various sources — primarily through the Regular Budget and extrabudgetary contributions. The Regular Budget<sup>30</sup> appropriation for 2018 was adjusted to  $\notin$ 138.7 ( $\notin$ 137.0) million at the United Nations operational average rate of exchange for the year. Figure 1<sup>31</sup> presents indexed real growth by comparing the increase in the final budget<sup>32</sup> to the approved budget excluding price adjustment and currency revaluation<sup>33</sup>.

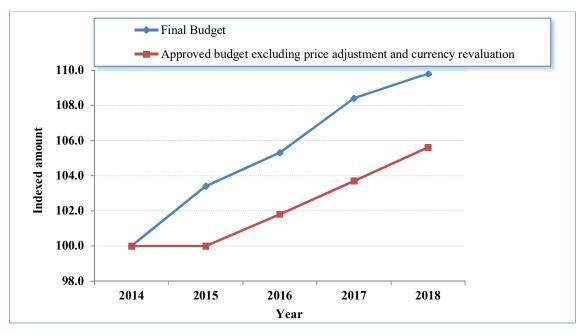


Figure 1. Indexed real growth of the Regular Budget, 2014–2018 (base 2014=100)

55. The expenditures for Major Programme 4 were  $\in$ 138.6 ( $\in$ 137.0) million from the Regular Budget, an increase of 1.2%, compared with 2017. The Regular Budget utilization rate for 2018 was 100% (100%) with an unspent balance of less than  $\in$ 0.1 million at the end of the year. Figure 2 shows the utilization trend of Major Programme 4 for the period 2014–2018.

<sup>&</sup>lt;sup>30</sup> €142.0 million (at an exchange rate €1=\$1).

<sup>&</sup>lt;sup>31</sup> Represents indexed real growth of 5.6%. The total growth after price adjustment amounts to 9.8%.

<sup>&</sup>lt;sup>32</sup> Represents the final budget for the operational portion of the Regular Budget appropriation as represented in the annual Agency's Financial Statements, including the effects of the price adjustment and the recalculation of the Regular Budget portion of US dollars at the United Nations operational average rate of exchange for the year.

 $<sup>^{33}</sup>$  Represents the indexed original operational portion of the Regular Budget appropriation as approved in the budget documents at an exchange rate of  $\\end{e}1=$ \$1 and prior to any price adjustment.

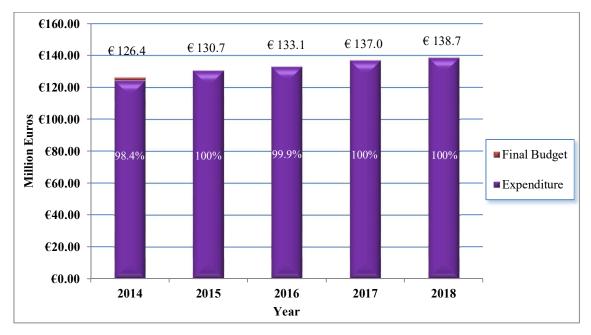


Figure 2. Major Programme 4 — Nuclear Verification — budget and expenditures, 2014–2018

56. The expenditures<sup>34</sup> from the extrabudgetary contributions were  $\in 18.9$  ( $\in 26.8$ ) million, a decrease of 29.6% compared with 2017. This decrease resulted mainly from completion of the MOSAIC project in May 2018.

## B.7. Status of safeguards agreements (as of 31 December 2018)

57. This section contains information — presented in the five tables below — on safeguards agreements that provide the basis for the Agency's implementation of safeguards in 2018. It does not include agreements under which the application of safeguards has been suspended in the light of implementation of safeguards pursuant to another agreement. For full details, see the Agency's website: http://www.iaea.org.

State	SQP	INFCIRC	Additional protocol (date of entry into force)	SLA developed	Broader conclusio n drawn	Integrated safeguards implemented
Afghanistan	X(A)	257	19 July 2005	Х		
Albania		359	03 November 2010	Х	Х	Х
Andorra	X(A)	808	19 December 2011	Х	Х	Х
Angola	X(A)	800	28 April 2010			
Antigua and Barbuda	X(A)	528	15 November 2013	Х		
Armenia		455	28 June 2004	Х	Х	Х
Australia		217	12 December 1997	Х	Х	Х
Austria		193	30 April 2004	Х	Х	Х
Azerbaijan		580	29 November 2000	Х		
Bahrain	X(A)	767	20 July 2011			
Bangladesh		301	30 March 2001	Х	Х	Х
Belgium		193	30 April 2004	Х	Х	Х

Table 1 – States with comprehensive safeguards agreements and additional protocols in force

<sup>34</sup> Including Programme Support Costs.

State	SQP	INFCIRC	Additional protocol (date of entry into force)	SLA developed	Broader conclusio n drawn	Integrated safeguards implemented
Bosnia and		851	03 July 2013	Х		
Herzegovina			-			
Botswana		694	24 August 2006	X	X	X
Bulgaria <sup>(1)</sup>		193	01 May 2009	Х	Х	X
Burkina Faso	X(A)	618	17 April 2003	X	Х	X
Burundi	X(A)	719	27 September 2007	X		
Cambodia	X(A)	586	24 April 2015	Х		
Cameroon	X	641	29 September 2016	V	V	V
Canada		164	08 September 2000	Х	Х	Х
Central African	X(A)	777	07 September 2009	Х		
Republic Chad		802	12 May 2010	X		
Chile	X(A)	476	13 May 2010 03 November 2003	X	X	X
		306	05 March 2009	Λ	Λ	Λ
Colombia Comoros	X(A)	752	20 January 2009			
Comoros Congo	X(A) X(A)	831	20 January 2009 28 October 2011	X		
Costa Rica	X(A)	278	17 June 2011	Λ		
Côte d'Ivoire	$\Lambda(A)$	309	05 May 2016	X		
Croatia <sup>(1)</sup>		193	01 April 2017	X	Х	Х
Cuba		633	03 June 2004	X	X	X
Cyprus <sup>(1)</sup>		193	01 May 2008	X		
Czech Republic <sup>(1)</sup>		193	01 October 2009	X	Х	X
Democratic Republic						
of the Congo		183	09 April 2003	X		
Denmark <sup>(2)</sup>		193 176	30 April 2004 22 March 2013	Х	Х	Х
Djibouti	X(A)	884	26 May 2015			
Dominican Republic	X(A)	201	05 May 2010			
Ecuador	X(A)	231	24 October 2001	Х	Х	Х
El Salvador	X(A)	232	24 May 2004			
Estonia <sup>(1)</sup>		193	01 December 2005	Х	Х	Х
Eswatini <sup>(5)</sup>	X(A)	227	08 September 2010	Х		
Fiji	Х	192	14 July 2006	Х		
Finland		193	30 April 2004	X	X	Х
Gabon	X(A)	792	25 March 2010	Х		
Gambia	X(A)	277	18 October 2011	X		
Georgia		617	03 June 2003	X		
Germany		193	30 April 2004	X	X	X
Ghana		226	11 June 2004	X	X	X
Greece	37(1)	193	30 April 2004	X	Х	Х
Guatemala	X(A)	299	28 May 2008	Х		
Haiti	X	681	09 March 2006	V	37	37
Holy See	X(A)	187	24 September 1998	Х	Х	Х
Honduras	X(A)	235	17 November 2017	V	V	V
Hungary <sup>(1)</sup>	V(A)	193	01 July 2007	X	X	X
Iceland	X(A)	215	12 September 2003 29 September 1999	X X	X X	X X
Indonesia		283 172		Λ	Λ	Λ
Iraq Ireland		172	10 October 2012	v	X	X
Italy		193	30 April 2004 X		X	X X
Jamaica		265	30 April 2004 X   19 March 2003 X		X	X X
Japan		203	16 December 1999	X	X	X
Jordan		253	28 July 1998	Λ	X	Λ
Kazakhstan		504	09 May 2007	X	X	Х
Kazakiistaii Kenya	X(A)	778	18 September 2009	Λ		Λ
Kellya	$\Lambda(A)$	//ð	18 September 2009			

State	SQP	INFCIRC	Additional protocol (date of entry into force)	SLA developed	Broader conclusio n drawn	Integrated safeguards implemented
Korea, Republic of		236	19 February 2004	Х	Х	X
Kuwait	X(A)	607	02 June 2003	X	X	X
Kyrgyzstan	X	629	10 November 2011	X		<u> </u>
Latvia <sup>(1)</sup>		193	01 October 2008	X	Х	Х
Lesotho	X(A)	199	26 April 2010	Λ	Λ	Λ
Liberia	X(A)	927	10 December 2018			
Libya	11(11)	282	11 August 2006	X	Х	Х
Liechtenstein		275	25 November 2015		X	
Lithuania <sup>(1)</sup>		193	01 January 2008	X	X	X
Luxembourg		193	30 April 2004	X	X	X
Madagascar	X(A)	200	18 September 2003	X	X	X
Malawi	X(A)	409	26 July 2007	X	Λ	Λ
Mali	X(A)	615	12 September 2002	X	Х	X
Malta <sup>(1)</sup>	$\Lambda(A)$	193	01 July 2007	X	X	X
Marshall Islands		653	01 July 2007 03 May 2005	X	Λ	Λ
	V(A)	788	10 December 2009	Λ		
Mauritania Mauriting	X(A)			v	v	v
Mauritius	X(A)	190	17 December 2007	X	Х	X
Mexico	V(A)	197	04 March 2011	V	V	V
Monaco	X(A)	524	30 September 1999	X	Х	Х
Mongolia	X	188	12 May 2003	X		
Montenegro	X(A)	814	04 March 2011	Х	Х	Х
Morocco		228	21 April 2011			
Mozambique	X(A)	813	01 March 2011	X		
Namibia	Х	551	20 February 2012	Х		
Netherlands <sup>(3)</sup>		193	30 April 2004	X	X	Х
New Zealand <sup>(4)</sup>	X(A)	185	24 September 1998	Х	Х	Х
Nicaragua	X(A)	246	18 February 2005			
Niger		664	02 May 2007	Х		
Nigeria		358	04 April 2007	Х		
North Macedonia <sup>(6)</sup>	X(A)	610	11 May 2007	Х	Х	Х
Norway		177	16 May 2000	X	Х	Х
Palau	X(A)	650	13 May 2005	Х	Х	Х
Panama	X(A)	316	11 December 2001			
Paraguay	X(A)	279	15 September 2004			
Peru		273	23 July 2001	X	Х	Х
Philippines		216	26 February 2010	Х	Х	Х
Poland <sup>(1)</sup>		193	01 March 2007	X	Х	Х
Portugal		193	30 April 2004	Х	Х	Х
Republic of Moldova	X(A)	690	01 June 2012	X		
Romania <sup>(1)</sup>		193	01 May 2010	Х	Х	Х
Rwanda	X(A)	801	17 May 2010	Х		
Saint Kitts and Nevis	X(A)	514	19 May 2014	Х		
Senegal	X(A)	276	24 July 2017	Х		
Serbia		204	17 September 2018			
Seychelles	X(A)	635	13 October 2004	X	Х	Х
Singapore	X(A)	259	31 March 2008	Х	Х	Х
Slovakia <sup>(1)</sup>		193	01 December 2005	X	X	X
Slovenia <sup>(1)</sup>		193	01 September 2006	Х	Х	Х
South Africa		394	13 September 2002	X	X	X
Spain		193	30 April 2004	X	X	X
Sweden		193	30 April 2004	X	X	X
Switzerland		264	01 February 2005	X	X	X
Tajikistan		639	14 December 2004	X	X	X
Thailand		241	17 November 2017	X		
Togo	X(A)	840	18 July 2012	X		
TURN	л(A)	040	10 July 2012	Λ		

State	SQP	INFCIRC	Additional protocol (date of entry into force)	SLA developed	Broader conclusio n drawn	Integrated safeguards implemented
Turkey		295	17 July 2001		Х	
Turkmenistan		673	03 January 2006	Х		
Uganda	X(A)	674	14 February 2006	Х		
Ukraine		550	24 January 2006	Х	Х	Х
United Arab Emirates		622	20 December 2010			
United Republic of Tanzania	X(A)	643	07 February 2005	Х	Х	Х
Uruguay		157	30 April 2004	Х	Х	Х
Uzbekistan		508	21 December 1998	Х	Х	Х
Vanuatu	X(A)	852	21 May 2013	Х		
Viet Nam		376	17 September 2012	Х	Х	Х

General Notes:

• In addition, safeguards, including the measures of the Model Additional Protocol, were applied for Taiwan, China. The broader conclusion was drawn for Taiwan, China, in 2006 and integrated safeguards were implemented from 1 January 2008. There is a safeguards approach developed for Taiwan, China.

 The safeguards agreement reproduced in INFCIRC/193 is that concluded between the non-nuclear-weapon States of the European Atomic Energy Community (EURATOM), EURATOM and the Agency.

• 'X' in the 'SQP' column indicates that the State has an operative SQP. 'X(A)' indicates that the SQP in force is based on the revised SQP standard text (see Section B, paragraph 6).

• 'X' in the 'SLA developed' column indicates that a State-level safeguards approach has been developed.

• 'X' in the 'broader conclusion drawn' column indicates that the broader conclusion has been drawn as described in Section B, paragraph 13.

• 'X' in the 'integrated safeguards implemented' column indicates that integrated safeguards were implemented for the whole of the year. X\* in this column indicates that integrated safeguards were started during the course of the year.

#### Table Notes:

(1) The date refers to accession to INFCIRC/193 and INFCIRC/193/Add.8.

- (2) The application of safeguards in Denmark under the bilateral NPT safeguards agreement (INFCIRC/176), in force since 1 March 1972, was suspended on 21 February 1977, on which date the safeguards agreement between the non-nuclear-weapon States of EURATOM, EURATOM and the Agency (INFCIRC/193) entered into force for Denmark. Since 21 February 1977, INFCIRC/193 also applies to the Faroe Islands. Upon Greenland's secession from EURATOM as of 31 January 1985, the agreement between the Agency and Denmark (INFCIRC/176) re-entered into force for Greenland. The additional protocol to this agreement entered into force on 22 March 2013 (INFCIRC/176/Add.1).
- (3) The safeguards agreement reproduced in INFCIRC/229 with regard to the Caribbean part of the Netherlands (the islands of Bonaire, Sint Eustatius, and Saba), Aruba, Curaçao and Sint Maarten is pursuant to the NPT and Additional Protocol I to the Treaty of Tlatelolco. There is an SQP to this agreement. No additional protocol is in force for that agreement.
- (4) The safeguards agreement reproduced in INFCIRC/185 is also applicable to the Cook Islands and Niue. The amended SQP reproduced in INFCIRC/185/Mod.1 and the additional protocol reproduced in INFCIRC/185/Add.1, however, are not applicable to the Cook Islands and Niue.
- (5) The name "Eswatini" has replaced the former name "Swaziland" as of 29 June 2018.
- (6) The name "North Macedonia" has replaced the former name "The former Yugoslav Republic of Macedonia" as of 15 February 2019.

State	SQP	INFCIRC	Additional protocol	SLA developed
Algeria		531	Signed: 16 February 2018	
Argentina		435		
Bahamas	X(A)	544		
Barbados	Х	527		Х
Belarus		495	Signed: 15 November 2005	
Belize	Х	532		Х
Bhutan	Х	371		Х

#### Table 2 – States with comprehensive safeguards agreements but no additional protocols in force

State	SQP	INFCIRC	Additional protocol	SLA developed
Bolivia, Plurinational	Х	465		х
State of	Λ			74
Brazil		435		
Brunei Darussalam	Х	365		X
Democratic People's		403		
Republic of Korea <sup>(1)</sup> Dominica	Х	513		X
Egypt	Λ	313		Λ
Ethiopia	Х	261		X
Grenada	X	525		X
Guyana	X	543		X
Iran, Islamic Republic of <sup>(2)</sup>	Λ	214	Signed: 18 December 2003	Λ
Kiribati	Х	390	Signed: 09 November 2004	X
Lao People's				
Democratic Republic	Х	599	Signed: 05 November 2014	Х
Lebanon	X(A)	191		
Malaysia		182	Signed: 22 November 2005	
Maldives	Х	253		Х
Myanmar	Х	477	Signed: 17 September 2013	Х
Nauru	Х	317		Х
Nepal	Х	186		Х
Oman	Х	691		
Papua New Guinea	Х	312		Х
Qatar	X(A)	747		
Saint Lucia	Х	379		Х
Saint Vincent and the Grenadines	Х	400		Х
Samoa	Х	268		Х
San Marino	X(A)	575		Х
Saudi Arabia	X	746		
Sierra Leone	Х	787		Х
Solomon Islands	Х	420		Х
Sri Lanka		320	Approved: 12 September 2018	
Sudan	Х	245		
Suriname	Х	269		X
Syrian Arab Republic		407		
Tonga	X(A)	426		Х
Trinidad and Tobago	Х	414		Х
Tunisia		381	Signed: 24 May 2005	
Tuvalu	Х	391		Х
Venezuela, Bolivarian Republic of		300		
Yemen	Х	614		
Zambia	Х	456	Signed: 13 May 2009	Х
Zimbabwe General Notes:	X(A)	483		Х

• The safeguards agreement reproduced in INFCIRC/435 is that concluded between Argentina, Brazil, the Brazilian-Argentine Agency for Accounting and Control of Nuclear Material (ABACC) and the Agency.

• 'X' in the 'SQP' column indicates that the State has an operative SQP. 'X(A)' indicates that the SQP in force is based on the revised SQP standard text (see Section B, paragraph 6).

• 'X' in the 'SLA developed' column indicates that a State-level safeguards approach has been developed.

Table Notes:

(1) In a letter to the Director General dated 10 January 2003, the DPRK stated that the Government had "decided to lift the moratorium on the effectiveness of its withdrawal from the Treaty on the Non-Proliferation of Nuclear Weapons" and that "its decision to withdraw from the Treaty will come into effect from 11 January 2003 onwards."

(2) On 16 January 2016, as notified in its letter to the Director General of 7 January 2016, Iran began to provisionally apply its additional protocol in accordance with Article 17(b) of the Additional Protocol, pending its entry into force.

States Parties to the NPT	SQP	Safeguards agreement	Additional protocol
Benin	X(A)	Signed: 07 June 2005	Signed: 07 June 2005
Cabo Verde	X(A)	Signed: 28 June 2005	Signed: 28 June 2005
Equatorial Guinea	Х	Approved: 13 June 1986	
Eritrea			
Guinea	X(A)	Signed: 13 December 2011	Signed: 13 December 2011
Guinea-Bissau	X(A)	Signed: 21 June 2013	Signed: 21 June 2013
Micronesia, Federated States of	X(A)	Signed: 01 June 2015	
São Tome and Principe			
Somalia			
State of Palestine <sup>(1)</sup>	X(A)	Approved 07 March 2018	
Timor-Leste	X(A)	Signed: 06 October 2009	Signed: 06 October 2009
General Note:			

#### Table 3 - States Parties to the NPT without comprehensive safeguards agreements in force

General Note:

'X' in the 'SQP' column indicates that the State has an SQP. 'X(A)' indicates that the SQP is based on the revised SQP . standard text (see Section B, paragraph 6). In both cases, the SQP will come into force at the same time as the safeguards agreement.

Table Note:

(1) The designation employed does not imply the expression of any opinion whatsoever concerning the legal status of any country or territory or of its authorities, or concerning the delimitation of its frontiers.

State	INFCIRC	Additional protocol
India	754	In force: 25 July 2014
Israel	249/Add.1	
Pakistan	34 116 135 239 248 393 418 705 816 920	

#### Table 4 – States with safeguards agreements based on INFCIRC/66/Rev.2 in force

#### Table 5 – States with voluntary offer agreements and additional protocols in force

State	INFCIRC	Additional protocol	SLA developed
China	369	In force: 28 March 2002	
France <sup>(1)</sup>	290	In force: 30 April 2004	
Russian Federation	327	In force: 16 October 2007	
United Kingdom of Great Britain and Northern Ireland <sup>(2), (3), (4)</sup>	263	In force: 30 April 2004	Х
United States of America <sup>(5)</sup>	288	In force: 06 January 2009	
General Note:		· · · · · · · · · · · · · · · · · · ·	

• 'X' in the 'SLA developed' column indicates that a State-level safeguards approach has been developed.

Table Notes:

- (1) The safeguards agreement reproduced in INFCIRC/718 between France, EURATOM and the Agency is pursuant to Additional Protocol I to the Treaty of Tlatelolco. There is an SQP to this agreement. No additional protocol to that agreement has been concluded.
- (2) The safeguards agreement reproduced in INFCIRC/175, which remains in force, is an INFCIRC/66/Rev.2-type safeguards agreement, concluded between the United Kingdom and the Agency.
- (3) The safeguards agreement between the United Kingdom, EURATOM and the Agency pursuant to Additional Protocol I to the Treaty of Tlatelolco was signed but has not entered into force. There is an SQP to this agreement. No additional protocol to that agreement has been concluded.
- (4) The safeguards agreement between the United Kingdom and the Agency for the applications of safeguards in the United Kingdom in connection with the NPT and the additional protocol thereto were signed but have not entered into force.
- (5) The safeguards agreement reproduced in INFCIRC/366 between the United States of America and the Agency is pursuant to Additional Protocol I to the Treaty of Tlatelolco. There is an SQP to this agreement. The SQP was amended. No additional protocol to that agreement has been concluded.