

Safeguards Statement for 2010

In 2010, safeguards were applied for 175 States¹ with safeguards agreements in force with the Agency. The Secretariat's findings and conclusions for 2010 are reported below with regard to each type of safeguards agreement. These findings and conclusions are based upon an evaluation of all the information available to the Agency in exercising its rights and fulfilling its safeguards obligations for that year.

1. Ninety-nine States had both comprehensive safeguards agreements and additional protocols in force:

- (a) For 57 of these States², 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 42 of the 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 68 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.

While the Secretariat concluded that, for 2010, declared nuclear material in Iran remained in peaceful activities, it was unable to conclude that all nuclear material in Iran was in peaceful activities.

3. As of the end of 2010, 17 non-nuclear-weapon States party to the Treaty on the Non-Proliferation of Nuclear Weapons (NPT) had not yet brought comprehensive safeguards agreements with the Agency into force as required by Article III of that Treaty. For these States, the Secretariat could not draw any safeguards conclusions.

¹ The 175 States do not include the Democratic People's Republic of Korea (DPRK), where the Secretariat did not implement safeguards and, therefore, could not draw any conclusion.

² And Taiwan, China.

4. Three States had safeguards agreements in force based on INFCIRC/66/Rev.2, which require the application of safeguards to nuclear material, facilities and other items specified in the relevant safeguards agreement. 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.

5. Five nuclear-weapon States had voluntary offer safeguards agreements and additional protocols in force. Safeguards were implemented with regard to declared nuclear material in selected facilities in all five States. For these five 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 to which safeguards had been applied in selected facilities remained in peaceful activities or had been withdrawn from safeguards as provided for in the agreements.

Background to the Safeguards Statement and Summary

1. The Safeguards Conclusions

1. The Safeguards Statement for 2010 reflects the safeguards 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 verification activities and of all the safeguards relevant information available to it. This section provides background to the Safeguards Statement. A description of the Agency's safeguards system can be found on the Agency's website: http://www.iaea.org/OurWork/SV/Safeguards/safeg_system.pdf. A summary of the status of States' safeguards agreements and other information presented below is given in Tables 1 to 5 in Section B.7.

1.1. States with Comprehensive Safeguards Agreements in Force

2. Under a comprehensive safeguards agreement, the Agency has the right and obligation to ensure that safeguards are applied, in accordance with the terms of the agreement, to all nuclear 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 devices³.

3. 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 locations outside facilities (LOFs) where nuclear material is customarily used. They also include procedures related to Agency access to nuclear material, facilities and LOFs.

4. 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 procedures specified in the agreement. An inventory of such nuclear material is established on the basis of an initial report by a State, verified by the Agency and maintained on the basis of subsequent reports by the State and by Agency verification. The Agency performs its verification 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

5. 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

³ Paragraph 2 of INFCIRC/153 (Corrected).

original standard text submitted to the Board of Governors in 1974⁴, the implementation of most of the safeguards procedures in Part II of a State's comprehensive safeguards agreement are held in abeyance as long as certain criteria are met. In 2005, the Board of Governors approved the revision of the standard text of the SQP⁵. 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 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

6. 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 Protocol⁶, approved by the Board of Governors in 1997, equips the Agency with important supplementary 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.

State and Regional Systems of Accounting and Control

7. To enable the Agency to perform its verification activities effectively and efficiently, States need to comply with the requirements of their safeguards agreements and additional protocols. Of particular importance is the requirement under a comprehensive safeguards agreement to establish and maintain a State or regional system of accounting for and control of nuclear material (SSAC/RSAC). The effectiveness of such State or regional systems and the extent of the State or regional authority's cooperation with the Agency have a direct impact on the effectiveness and efficiency of Agency safeguards.

1.1.1. States with both Comprehensive Safeguards Agreements and Additional Protocols in Force

Status of Implementation

8. As of 31 December 2010, 99 States⁷ had both comprehensive safeguards agreements and additional protocols in force.

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. In implementing in-field activities in 2010, the Agency carried out 1750 inspections, 423 design information verifications (DIVs) and 142 complementary accesses utilizing 10 340 calendar-days in the field for verification (CDFVs)⁸ in these States.

⁴ GOV/INF/276/Annex B.

⁵ GOV/INF/276/Mod.1 and Corr.1.

⁶ INFCIRC/540 (Corrected), Model Protocol Additional to the Agreement(s) between State(s) and the International Atomic Energy Agency for the Application of Safeguards.

⁷ See footnote 2.

⁸ CDFVs comprise calendar-days spent in performing inspections or complementary access, DIV, inspection travel and rest periods.

Deriving Conclusions

10. A safeguards conclusion that all nuclear material has remained in peaceful activities in a State is based on the Secretariat'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 State as a whole. The Secretariat 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 Secretariat needs to carry out a comprehensive evaluation of all 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 and the results of the Agency's in-field activities carried out in order to verify the State's declarations. In addition, the Secretariat evaluates the information acquired through the implementation of the State's additional protocol.

12. To ascertain that there are no indications of undeclared nuclear material or activities in a State, the Secretariat 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 agreement and additional protocol and with all other information available to the Agency. In particular, the Secretariat needs to have:

- conducted a comprehensive State evaluation based on all information available to the Agency about the State's nuclear and nuclear-related activities (including declarations submitted under the additional protocol, 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; and
- addressed all anomalies, questions 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 Secretariat 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 has remained in peaceful activities. Subsequently, the Agency implements an integrated safeguards approach for that State whereby — 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.

14. In drawing safeguards conclusions, the Secretariat evaluates whether the safeguards activities carried out during the year have satisfied certain performance targets. In those cases where integrated safeguards were not implemented for the whole year, the Safeguards Criteria function as the performance targets⁹. Under integrated safeguards — an optimized combination of measures under comprehensive safeguards agreements and additional protocols — the performance targets are those set out in the State-level integrated safeguards approach approved for each State¹⁰.

⁹ The Safeguards Criteria specify the activities considered necessary by the Secretariat to provide a reasonable probability of detecting the diversion of a significant quantity (SQ) of nuclear material from declared facilities and LOFs.

¹⁰ A State-level integrated safeguards approach, although based on safeguards verification objectives common to all States, takes into account the features of the individual State's nuclear fuel cycle and other relevant State-specific factors.

Overall Conclusions for 2010

15. 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 2010 for 57 States¹¹ — Armenia, Australia, Austria, Bangladesh, Belgium, Botswana, Bulgaria, Burkina Faso, Canada, Chile, Croatia, Cuba, the Czech Republic, Denmark¹², Ecuador, Estonia, Finland, Germany, Ghana, Greece, the Holy See, Hungary, Iceland, Indonesia, Ireland, Italy, Jamaica, Japan, Jordan, Kuwait, Latvia, Libya, Lithuania, Luxembourg, Madagascar, Mali, Malta, Monaco, the Netherlands¹³, New Zealand¹⁴, Norway, Palau, Peru, Poland, Portugal, the Republic of Korea, Romania, the Seychelles, Singapore, Slovakia, Slovenia, South Africa, Spain, Sweden, Ukraine, Uruguay and Uzbekistan. For five of these States — Botswana, Iceland, Singapore, South Africa and Ukraine — the conclusion in paragraph 1(a) of the Safeguards Statement was drawn for the first time.

16. Because the evaluation process described in paragraph 12 had not yet been completed for 42 States, the conclusion drawn for these States related only to declared nuclear material in peaceful activities. The conclusion in paragraph 1(b) was drawn for Afghanistan, Albania, Angola, Azerbaijan, Burundi, Central African Republic, Chad, Colombia, Comoros, Cyprus, the Democratic Republic of the Congo, the Dominican Republic, El Salvador, Fiji, Gabon, Georgia, Guatemala, Haiti, Kazakhstan, Kenya, Lesotho, Malawi, the Marshall Islands, Mauritania, Mauritius, Mongolia, Nicaragua, Niger, Nigeria, Panama, Paraguay, the Philippines, Rwanda, Swaziland, Switzerland, Tajikistan, The Former Yugoslav Republic of Macedonia, Turkey, Turkmenistan, Uganda, the United Arab Emirates, and the United Republic of Tanzania.

¹¹ See footnote 2.

¹² This conclusion is drawn with regard only to that part of Denmark which is covered by INFCIRC/193 and INFCIRC/193/Add.8, i.e. Denmark and the Faroe Islands, which excludes Greenland. Denmark has concluded a separate comprehensive safeguards agreement for Greenland (INFCIRC/176), but has not yet concluded an additional protocol thereto. Denmark was encouraged to conclude an additional protocol in connection with INFCIRC/176 so that a broader conclusion can be drawn for the territory covered by that agreement.

¹³ 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 Netherlands Antilles and Aruba. The Netherlands has concluded a separate comprehensive safeguards agreement for the Netherlands Antilles and Aruba (INFCIRC/229), but has not yet concluded an additional protocol thereto. The Netherlands was encouraged to conclude an additional protocol in connection with INFCIRC/229 so that a broader conclusion can be drawn for the territories covered by that agreement.

¹⁴ This conclusion is drawn with regard only to that part of 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 covered by INFCIRC/185, but not by INFCIRC/185/Add.1.

1.1.2. States with Comprehensive Safeguards Agreements in Force but no Additional Protocols in Force

Status of Implementation

17. As of 31 December 2010, safeguards were implemented for 68 States¹⁵ 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. The Agency carried out 234 inspections and 158 DIVs utilizing 1810 CDFVs in these States.

Deriving Conclusions

18. For a State with a comprehensive safeguards agreement alone, the Agency's right and obligation are as described in paragraph 2 above. Although safeguards strengthening measures under such an agreement¹⁶ have somewhat 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.

19. 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 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.

Islamic Republic of Iran

20. During 2010, the Director General submitted four reports to the Board of Governors on the implementation of Iran's comprehensive safeguards agreement and relevant provisions of United Nations Security Council resolutions (GOV/2010/10, GOV/2010/28, GOV/2010/46 and GOV/2010/62).

21. In 2010, contrary to the relevant resolutions of the Board of Governors and the United Nations Security Council, Iran did not: implement the provisions of its additional protocol; implement the modified Code 3.1 of the subsidiary arrangements general part to its comprehensive safeguards agreement; suspend its enrichment related activities; suspend its heavy water related activities; or clarify the remaining outstanding issues which give rise to concerns about possible military dimensions to its nuclear programme.

22. For 2010, while the Agency continued to verify the non-diversion of declared nuclear material at the nuclear facilities and LOFs declared by Iran under its comprehensive safeguards agreement, the Agency was not able to provide credible assurance about the absence of undeclared nuclear material and activities in Iran, and therefore to conclude that all nuclear material in Iran was in peaceful activities.

¹⁵ The 68 States do not include the DPRK, where the Secretariat did not implement safeguards and, therefore, could not draw any conclusion.

¹⁶ Such measures include the early provision of design information, environmental sampling and the use of satellite imagery.

Syrian Arab Republic

23. During 2010, the Director General submitted four reports to the Board of Governors on the implementation of Syria's comprehensive safeguards agreement (GOV/2010/11, GOV/2010/29, GOV/2010/47 and GOV/2010/63). The Agency continued its verification activities in relation to the allegations that an installation destroyed by Israel at the Dair Alzour site in Syria in September 2007 had been a nuclear reactor under construction. Syria has maintained that the destroyed building was a non-nuclear military installation.

24. Syria has not cooperated with the Agency since June 2008 in connection with the unresolved issues related to the Dair Alzour site and the other three locations allegedly functionally related to it. As a consequence, the Agency has not been able to make progress towards resolving the outstanding issues related to those sites.

25. In 2010, a plan of action was agreed between Syria and the Agency aimed at resolving the inconsistencies between Syria's declarations and the Agency's findings in relation to the origin of anthropogenic natural uranium particles found by the Agency at the Miniature Neutron Source Reactor (MNSR) near Damascus in 2009. As of the end of 2010, activities were ongoing to resolve the inconsistencies identified by the Agency.

26. For 2010, the Agency was able to conclude for Syria that declared nuclear material remained in peaceful activities.

Overall Conclusions for 2010

27. On the basis of the evaluation performed and as reflected in paragraph 2 of the Safeguards Statement for 2010, the Secretariat concluded that for the 68 States¹⁷ referred to in paragraph 17 above, declared nuclear material remained in peaceful activities. This conclusion was drawn for Algeria, Andorra, Antigua and Barbuda, Argentina, the Bahamas, Bahrain, Barbados, Belarus, Belize, Bhutan, Bolivia, Bosnia and Herzegovina, Brazil, Brunei Darussalam, Cambodia, Cameroon, Costa Rica, Côte d'Ivoire, Dominica, Egypt, Ethiopia, Gambia, Grenada, Guyana, Honduras, the Islamic Republic of Iran, Iraq, Kiribati, Kyrgyzstan, the Lao People's Democratic Republic, Lebanon, Liechtenstein, Malaysia, the Maldives, Mexico, Morocco, Myanmar, Namibia, Nauru, Nepal, Oman, Papua New Guinea, Qatar, the Republic of Moldova, Saint Kitts & Nevis, Saint Lucia, Saint Vincent and the Grenadines, Samoa, San Marino, Saudi Arabia, Senegal, Serbia, Sierra Leone, the Solomon Islands, Sri Lanka, Sudan, Suriname, the Syrian Arab Republic, Thailand, Tonga, Trinidad and Tobago, Tunisia, Tuvalu, the Bolivarian Republic of Venezuela, Vietnam, Yemen, Zambia and Zimbabwe.

1.2. States with no Safeguards Agreements in Force

28. As of 31 December 2010, 17 non-nuclear-weapon States party to the NPT had yet to bring comprehensive safeguards agreements into force pursuant to the Treaty.

Overall Conclusions for 2010

29. As indicated in paragraph 3 of the Safeguards Statement for 2010, the Secretariat could not draw any safeguards conclusions for the referenced States. These States are Benin, Cape

¹⁷ In addition, this conclusion is drawn for those territories of Denmark, the Netherlands and New Zealand referred to in footnotes 12, 13 and 14 for which the broader conclusion is not drawn – i.e. Greenland; the Netherlands Antilles and Aruba; and the Cook Islands and Niue respectively.

Verde, the Republic of Congo, Djibouti, Equatorial Guinea, Eritrea, Guinea, Guinea-Bissau, Liberia, the Federated States of Micronesia, Montenegro, Mozambique, São Tome and Principe, Somalia, Timor-Leste, Togo and Vanuatu.

1.3. States with Safeguards Agreements in Force based on INFCIRC/66/Rev.2

30. 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

31. As of 31 December 2010, safeguards were implemented at a number of facilities in India, Israel and Pakistan pursuant to safeguards agreements based on INFCIRC/66/Rev.2. None of these States had an additional protocol in force with the Agency. The Agency carried out 67 inspections and 19 DIVs utilizing 610 CDFVs in these States.

Deriving Conclusions

32. 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, including verification results and information about facility design features and operations.

Overall Conclusions for 2010

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

1.4. States with both Voluntary Offer Agreements and Additional Protocols in Force

34. Under a voluntary offer agreement, the Agency applies safeguards to nuclear material in those facilities which 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 into consideration factors such 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.

Status of Implementation

35. During 2010, safeguards were implemented at facilities selected by the Agency in the five States with voluntary offer safeguards 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. In implementing in-field activities, the Secretariat carried out 110 inspections, 15 DIVs and two complementary accesses utilizing 800 CDFVs in these States.

Deriving Conclusions

36. The conclusion contained in paragraph 5 of the Safeguards Statement for 2010 is reported for the five States with voluntary offer safeguards agreements in force in which safeguards were applied to nuclear material in selected facilities. To draw the safeguards conclusion, the Agency evaluates all relevant information, including verification results and information about facility design features and operations.

Overall Conclusions for 2010

37. 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. In three of these States there were no such withdrawals from the selected facilities.

2. Democratic People's Republic of Korea

38. In 2010, the Director General submitted one written report to the Board of Governors and General Conference on the *Application of Safeguards in the Democratic People's Republic of Korea (DPRK)* (GOV/2010/45-GC(54)/12).

39. Since December 2002, the Agency has not implemented safeguards in the Democratic People's Republic of Korea (DPRK) and, therefore, cannot draw any safeguards conclusion regarding the DPRK.

40. Since 15 April 2009, the Agency has not implemented any measures under the ad hoc monitoring and verification arrangement agreed between the Agency and the DPRK and foreseen in the Initial Actions agreed at the Six-Party Talks.

41. Although not implementing any verification in the field, the Agency continued to monitor the DPRK's nuclear activities by using open source information, satellite imagery and trade information. In this regard, the Agency learned with great regret of the report on the uranium enrichment facility at Yongbyon. The Agency also continued to further consolidate its knowledge of the DPRK's nuclear programme with the objective of maintaining operational readiness to resume safeguards implementation in the State, to implement ad-hoc monitoring and verification arrangements and to resolve any issues that may have arisen due to the long absence of Agency safeguards.

3. Areas of Difficulty in Safeguards Implementation

42. Although progress was made in some areas of difficulty during 2010, remaining difficulties will continue to be addressed as part of the Secretariat's follow-up action plan.

43. The performance of State and regional authorities and the effectiveness of SSACs and RSACs have a significant impact upon the effectiveness and efficiency of safeguards implementation. In 2010, in some States SSACs still did not exist. Moreover, not all existing State and regional authorities have the necessary authority, independence from operators, resources and technical capabilities to administer the requirements of safeguards agreements and additional protocols. In particular, some States do not impose and verify proper nuclear material accountancy and control systems at nuclear facilities and LOFs to ensure the required accuracy and precision of the data transmitted to the Agency.

44. As noted in the SIR for 2009, in GC(54)/RES/11(2009), and as called upon in the Board's 2005 September decision, States which have not amended or rescinded their SQPs should do so as soon as possible. At the end of 2010, 58 States had operative SQPs yet to be amended.

45. Significant delays in the collection, distribution, analysis, and evaluation of environmental sampling results were noted in 2010, as in previous years. The inclusion in the NWAL of new laboratories capable of carrying out bulk analysis should contribute to reducing these delays.

46. Safeguards approaches for DNLEU conversion and fuel fabrication plants with significant throughput are required to be upgraded to include a short notice random inspection (SNRI) scheme for the verification of the flow of nuclear material into and out of a facility. Approaches including SNRI schemes were introduced in 2010 for conversion/fuel fabrication plants in Belgium, Kazakhstan and India. Discussions on SNRI schemes at the conversion plants in Argentina and Brazil remained ongoing during 2010.

4. Strengthening the Effectiveness and Improving the Efficiency of Safeguards

47. With the increase in the number of States with comprehensive safeguards agreements and additional protocols in force, it is essential to improve the efficiency of the Agency's safeguards system while maintaining or strengthening its effectiveness. During 2010, comprehensive safeguards agreements entered into force for five States: Andorra, Angola, Chad, Gabon and Rwanda. Additional protocols entered into force for ten States with comprehensive safeguards agreements: Albania, Angola, Chad, the Dominican Republic, Gabon, Lesotho, the Philippines, Rwanda, Swaziland and the United Arab Emirates. At the end of the year, 104 of the 175 States where safeguards were applied¹⁸ had additional protocols in force. Sixty-eight States with comprehensive safeguards agreements where safeguards were applied did not have additional protocols in force¹⁹.

48. In 2010, progress continued in strengthening the effectiveness and improving the efficiency of Agency safeguards through, for example, prioritization of activities in line with the Department's long term strategic plan, further development of the State-level concept, strengthening the State evaluation process, the introduction of integrated safeguards in more States, the development of safeguards approaches, the increased use and further development of technology and analysis, increased cooperation with State and regional authorities, and the implementation of an improved cost calculation methodology:

¹⁸ See footnote 2.

¹⁹ The 68 States do not include the DPRK.

- The *Long-Term Strategic Plan* (2012–2023) of the Department of Safeguards was completed in August 2010. The plan addresses the conceptual framework, legal authority, technical capabilities and human and financial resources for Agency verification activities.
- To move towards a safeguards system that is fully information driven, the Agency further developed the State-level concept for the planning, implementation and evaluation of safeguards. The State evaluation process was strengthened through, for example, the increased use of multidisciplinary analytical teams.
- Integrated safeguards were implemented during the whole of 2010 in 47 States,^{20, 21} eleven more than in 2009. Integrated safeguards were implemented for part of 2010 in one State²². On the basis of experience gained through integrated safeguards implementation, State level integrated safeguards approaches were updated during 2010 for four States²³.
- The development and implementation of more effective and efficient safeguards approaches continued, including approaches for new types of facility, such as geological repositories, encapsulation plants and pyroprocessing facilities, and — for verification of spent fuel transfers — approaches involving unattended monitoring and surveillance systems, and approaches using short notice or unannounced inspections to verify declarations of facilities’ operational plans and data using a ‘mailbox’ system.
- The development of information analysis capabilities continued, including the analysis of satellite imagery, open-source information and information on nuclear-related trade.
- The Safeguards Analytical Laboratories (SAL) were incorporated into the Department of Safeguards, placing the coordination of all analytical services under one administration for more effective and efficient programme management.
- Work continued with State and regional authorities on safeguards implementation issues such as the quality of operators’ systems for the measurement of nuclear material, the timeliness and accuracy of reports and declarations, and support for the Agency’s verification activities. Many training courses were held at the national, regional and interregional levels and two ISSAS missions were conducted.
- An improved cost calculation methodology was developed and implemented. This methodology establishes and monitors the cost of carrying out safeguards activities, and enables the costs of different safeguards implementation options to be compared, resulting in overall efficiency gains.

²⁰ Armenia, Australia, Austria, Bangladesh, Belgium, Bulgaria, Burkina Faso, Canada, Chile, Croatia, Cuba, the Czech Republic, Denmark, Ecuador, Estonia, Finland, Germany, Ghana, Greece, the Holy See, Hungary, Indonesia, Ireland, Italy, Jamaica, Japan, Latvia, Lithuania, Luxembourg, Madagascar, Mali, Malta, Monaco, the Netherlands, Norway, Palau, Peru, Poland, Portugal, the Republic of Korea, Romania, Slovakia, Slovenia, Spain, Sweden, Uruguay and Uzbekistan.

²¹ See footnote 2.

²² The Seychelles.

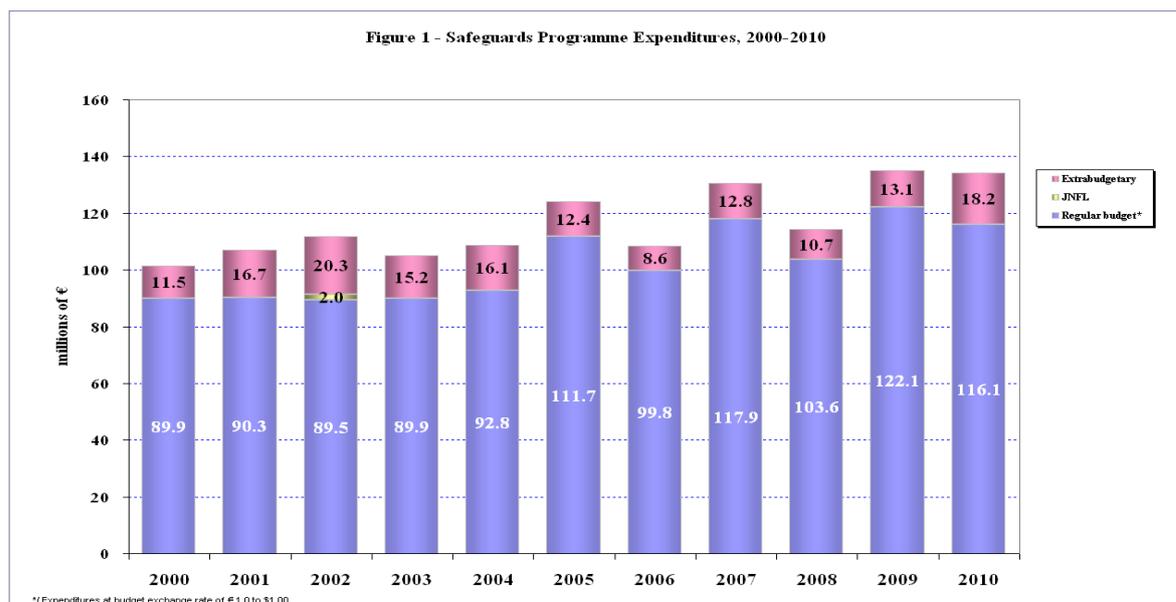
²³ Poland, the Republic of Korea, Slovenia and Uzbekistan.

49. The Standing Advisory Group on Safeguards Implementation (SAGSI) held two series of meetings in 2010. The main topics considered were departmental strategic planning and furthering the State level concept for all States to achieve a safeguards system that is fully information driven. Other topics included the verification of the front end of the nuclear fuel cycle, and Agency activities on novel technologies and ‘safeguards by design’.

5. Safeguards Expenditures and Resources

50. In 2010, safeguards expenditure from the Safeguards Regular Budget amounted to €110.2 million at the UN exchange rates in 2010, which is equivalent to €116.1 million at the budget exchange rate of €1.00 to \$1.00. In addition, €18.2 million (US \$23.9 million) was spent from voluntary contributions received from Member States. Regular Budget implementation for Major Programme 4 was 95.5% whereby €5.2 million remained unspent from the 2010 Regular Budget due to delays in some projects. Significant additional resources are required to address urgent needs, including the replacement of equipment and upgrading of infrastructure at SAL at Seibersdorf.

51. Figure 1 shows the expenditures of the Safeguards programme since 2000, the year the Agency began conducting significant implementation activities related to additional protocols. To allow comparison between years throughout the period, the figures have been adjusted to 2010 prices and converted to euro²⁴.



²⁴ From January 2006, the euro has been adopted as the functional currency for the Agency’s Regular Budget Fund. The exchange rate of 1 euro to 1 dollar is used for comparison purposes only.

6. Further Activities Supporting the Nuclear Non-Proliferation Regime

52. During 2010, the monitoring scheme approved by the Board of Governors in 1999 regarding separated neptunium and americium continued. The Secretariat received information from twelve States²⁵ and the European Commission about separated neptunium and americium. Flow-sheet verification also continued to be implemented. By the end of 2010, evaluation of the information that had been obtained under the monitoring scheme and from open and other sources had not indicated any issue of proliferation concern.

53. In 2010, the Agency continued to receive reports from Member States on incidents involving illicit trafficking in nuclear and other radioactive material. Thirty-five incidents were reported to have occurred in 2010 involving relatively small amounts of nuclear material.

54. In 2010, the Agency received a request from the Russian Federation and the United States of America to undertake a verification role under the agreement between those two States concerning the management and disposition of plutonium no longer required for defence purposes. The Agency started preparations for such a role.

²⁵ See footnote 2.

7. Status of Safeguards Agreements (as of 31 December 2010)

55. This section contains information — presented in the five tables below that conform with the structure of the Safeguards Statement — on safeguards agreements providing the basis for the Agency's safeguards implementation in 2010. 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/OurWork/SV/Safeguards/sir table.pdf](http://www.iaea.org/OurWork/SV/Safeguards/sir_table.pdf).

State	SQP	INFCIRC	Additional protocol (date of entry into force)	Broader conclusion drawn	Integrated safeguards implemented
Afghanistan	X	257	19 July 2005		
Albania		359	03 November 2010		
Angola	X(A)	800	28 April 2010		
Armenia		455	28 June 2004	X	X
Australia		217	12 December 1997	X	X
Austria		193	30 April 2004	X	X
Azerbaijan	X(A)	580	29 November 2000		
Bangladesh		301	30 March 2001	X	X
Belgium		193	30 April 2004	X	X
Botswana		694	24 August 2006	X	
Bulgaria ⁽¹⁾		193	01 May 2009	X	X
Burkina Faso	X(A)	618	17 April 2003	X	X
Burundi	X(A)	719	27 September 2007		
Canada		164	08 September 2000	X	X
Central African Republic	X(A)	777	07 September 2009		
Chad	X(A)	802	13 May 2010		
Chile		476	03 November 2003	X	X
Colombia		306	05 March 2009		
Comoros	X(A)	752	20 January 2009		
Croatia	X(A)	463	06 July 2000	X	X
Cuba		633	03 June 2004	X	X
Cyprus		193	01 May 2008		
Czech Republic ⁽¹⁾		193	01 October 2009	X	X
Dem. Republic of the Congo		183	09 April 2003		
Denmark ⁽²⁾		193	30 April 2004	X	X
Dominican Republic	X(A)	201	05 May 2010		
Ecuador	X(A)	231	24 October 2001	X	X
El Salvador	X	232	24 May 2004		
Estonia		193	01 December	X	X

Table 1 – States with comprehensive safeguards agreements and additional protocols in force					
State	SQP	INFCIRC	Additional protocol (date of entry into force)	Broader conclusion drawn	Integrated safeguards implemented
			2005		
Fiji	X	192	14 July 2006		
Finland		193	30 April 2004	X	X
Gabon	X	792	25 March 2010		
Georgia		617	03 June 2003		
Germany		193	30 April 2004	X	X
Ghana		226	11 June 2004	X	X
Greece		193	30 April 2004	X	X
Guatemala	X	299	28 May 2008		
Haiti	X	681	09 March 2006		
Holy See	X(A)	187	24 September 1998	X	X
Hungary ⁽¹⁾		193	01 July 2007	X	X
Iceland	X(A)	215	12 September 2003	X	
Indonesia		283	29 September 1999	X	X
Ireland		193	30 April 2004	X	X
Italy		193	30 April 2004	X	X
Jamaica		265	19 March 2003	X	X
Japan		255	16 December 1999	X	X
Jordan	X	258	28 July 1998	X	
Kazakhstan		504	09 May 2007		
Kenya	X(A)	778	18 September 2009		
Korea, Republic of		236	19 February 2004	X	X
Kuwait	X	607	02 June 2003	X	
Latvia ⁽¹⁾		193	01 October 2008	X	X
Lesotho	X(A)	199	26 April 2010		
Libyan Arab Jamahiriya		282	11 August 2006	X	
Lithuania ⁽¹⁾		193	01 January 2008	X	X
Luxembourg		193	30 April 2004	X	X
Madagascar	X(A)	200	18 September 2003	X	X
Malawi	X(A)	409	26 July 2007		
Mali	X(A)	615	12 September 2002	X	X
Malta ⁽¹⁾		193	01 July 2007	X	X
Marshall Islands		653	03 May 2005		
Mauritania	X	788	10 December 2009		
Mauritius	X(A)	190	17 December 2007		
Monaco	X(A)	524	30 September 1999	X	X
Mongolia	X	188	12 May 2003		
Netherlands ⁽³⁾		193	30 April 2004	X	X
New Zealand ⁽⁴⁾	X	185	24 September 1998	X	
Nicaragua	X(A)	246	18 February 2005		

Table 1 – States with comprehensive safeguards agreements and additional protocols in force					
State	SQP	INFCIRC	Additional protocol (date of entry into force)	Broader conclusion drawn	Integrated safeguards implemented
Niger		664	02 May 2007		
Nigeria		358	04 April 2007		
Norway		177	16 May 2000	X	X
Palau	X(A)	650	13 May 2005	X	X
Panama	X	316	11 December 2001		
Paraguay	X	279	15 September 2004		
Peru		273	23 July 2001	X	X
Philippines		216	26 February 2010		
Poland ⁽¹⁾		193	01 March 2007	X	X
Portugal		193	30 April 2004	X	X
Romania ⁽¹⁾		193	01 May 2010	X	X
Rwanda	X(A)	801	17 May 2010		
Seychelles	X(A)	635	13 October 2004	X	X*
Singapore	X(A)	259	31 March 2008	X	
Slovakia ⁽¹⁾		193	01 December 2005	X	X
Slovenia ⁽¹⁾		193	01 September 2006	X	X
South Africa		394	13 September 2002	X	
Spain		193	30 April 2004	X	X
Swaziland	X(A)	227	08 September 2010		
Sweden		193	30 April 2004	X	X
Switzerland		264	01 February 2005		
Tajikistan		639	14 December 2004		
The Former Yugoslav Republic of Macedonia	X(A)	610	11 May 2007		
Turkey		295	17 July 2001		
Turkmenistan		673	03 January 2006		
Uganda	X(A)	674	14 February 2006		
Ukraine		550	24 January 2006	X	
United Arab Emirates	X	622	20 December 2010		
United Republic of Tanzania	X(A)	643	07 February 2005		
Uruguay		157	30 April 2004	X	X
Uzbekistan		508	21 December 1998	X	X

Table 1 – States with comprehensive safeguards agreements and additional protocols in force					
State	SQP	INFCIRC	Additional protocol (date of entry into force)	Broader conclusion drawn	Integrated safeguards implemented
<p>General Notes:</p> <ul style="list-style-type: none"> ▪ In addition, safeguards, including the measures of the Model Additional Protocol, were applied in Taiwan, China. The broader conclusion was drawn for Taiwan, China, in 2006 and integrated safeguards implemented from 01 January 2008. ▪ The safeguards agreement reproduced in INFCIRC/193 is that concluded between the non-nuclear-weapon States of 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 standardized text (see Section B, paragraph 5 of this SIR). ▪ ‘X’ in the ‘broader conclusion drawn’ column indicates that the broader conclusion has been drawn as described in 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 initiated during the course of the year. <p>Footnotes:</p> <p>(1): The date refers to accession to INFCIRC/193/Add.8.</p> <p>(2): The safeguards agreement reproduced in INFCIRC/176 is applicable to Greenland as of 31 January 1985. No additional protocol is in force for Greenland.</p> <p>(3): The safeguards agreement reproduced in INFCIRC/229 with regard to the Netherlands Antilles 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 the Netherlands Antilles.</p> <p>(4): The safeguards agreement reproduced in INFCIRC/185 is applicable to the Cook Islands and Niue. The additional protocol reproduced in INFCIRC/185/Add. 1, however, is not applicable to the Cook Islands and Niue.</p>					

Table 2 – States with comprehensive safeguards agreements but no additional protocols in force			
State	SQP	INFCIRC	Additional protocol
Algeria		531	Approved: 14 September 2004
Andorra	X	808	Signed: 09 January 2001
Antigua and Barbuda	X	528	
Argentina		435	
Bahamas	X(A)	544	
Bahrain	X(A)	767	Signed: 21 September 2010
Barbados	X	527	
Belarus		495	Signed: 15 November 2005
Belize	X	532	
Bhutan	X	371	
Bolivia	X	465	
Bosnia and Herzegovina		204	
Brazil		435	
Brunei Darussalam	X	365	
Cambodia	X	586	
Cameroon	X	641	Signed: 16 December 2004
Costa Rica	X(A)	278	Signed: 12 December 2001
Côte d'Ivoire		309	Signed: 22 October 2008
Democratic People's Republic of Korea ⁽¹⁾		403	
Dominica	X	513	
Egypt		302	
Ethiopia	X	261	
Gambia	X	277	Approved: 03 March 2010
Grenada	X	525	
Guyana	X	543	
Honduras	X(A)	235	Signed: 07 July 2005
Iran, Islamic Republic of		214	Signed: 18 December 2003
Iraq ⁽²⁾		172	Signed: 09 October 2008
Kiribati	X	390	Signed: 09 November 2004
Kyrgyzstan	X	629	Signed: 29 January 2007
Lao People's Democratic Republic	X	599	
Lebanon	X(A)	191	
Liechtenstein		275	Signed: 14 July 2006
Malaysia		182	Signed: 22 November 2005
Maldives	X	253	
Mexico		197	Signed: 29 March 2004
Morocco		228	Signed: 22 September 2004
Myanmar	X	477	
Namibia	X	551	Signed: 22 March 2000
Nauru	X	317	
Nepal	X	186	
Oman	X	691	
Papua New Guinea	X	312	
Qatar	X(A)	747	
Republic of Moldova	X	690	Approved: 13 September 2006
Saint Kitts & Nevis	X	514	
Saint Lucia	X	379	
Saint Vincent and the Grenadines	X	400	
Samoa	X	268	
San Marino	X	575	
Saudi Arabia	X	746	
Senegal	X(A)	276	Signed: 15 December 2006

Table 2 – States with comprehensive safeguards agreements but no additional protocols in force			
State	SQP	INFCIRC	Additional protocol
Serbia		204	Signed: 03 July 2009
Sierra Leone	X	787	
Solomon Islands	X	420	
Sri Lanka		320	
Sudan	X	245	
Suriname	X	269	
Syrian Arab Republic		407	
Thailand		241	Signed: 22 September 2005
Tonga	X	426	
Trinidad and Tobago	X	414	
Tunisia		381	Signed: 24 May 2005
Tuvalu	X	391	
Venezuela, Bolivarian Republic of		300	
Vietnam		376	Signed: 10 August 2007
Yemen, Republic of	X	614	
Zambia	X	456	Signed: 13 May 2009
Zimbabwe	X	483	
<p>General Notes:</p> <ul style="list-style-type: none"> ▪ The safeguards agreement reproduced in INFCIRC/435 is that concluded between Argentina, Brazil, 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 standardized text (see Section B, paragraph 5 of this SIR). <p>Footnotes:</p> <p>(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 NPT” and that “its decision to withdraw from the NPT will come into effect from 11 January 2003 onwards.”</p> <p>(2): Iraq notified the Agency that it would, pending entry into force, apply the additional protocol provisionally as of 17 February 2010. Consequently, since that date, the additional protocol is being applied provisionally.</p>			

Table 3 – States party to the NPT without safeguards agreements in force			
State	SQP	Safeguards agreement	Additional protocol
Benin	X(A)	Signed: 07 June 2005	Signed: 07 June 2005
Cape Verde	X(A)	Signed: 28 June 2005	Signed: 28 June 2005
Congo, Republic of	X(A)	Signed: 13 April 2010	Signed: 13 April 2010
Djibouti	X(A)	Signed: 27 May 2010	Signed: 27 May 2010
Equatorial Guinea	X	Approved: 13 June 1986	
Eritrea			
Guinea			
Guinea-Bissau			
Liberia			
Micronesia, Federated States of			
Montenegro	X	Signed: 26 May 2008	Signed: 26 May 2008
Mozambique	X(A)	Signed: 08 July 2010	Signed: 08 July 2010
Sao Tome and Principe			
Somalia			
Timor-Leste	X(A)	Signed: 06 October 2009	Signed: 06 October 2009
Togo	X	Signed: 29 November 1990	Signed: 26 September 2003
Vanuatu		Approved: 08 September 2009	Approved: 08 September 2009
<p>General Note:</p> <ul style="list-style-type: none"> ▪ 'X' in the 'SQP' column indicates that the State has an SQP. 'X(A)' indicates that the SQP is based on the revised SQP standardized text (see Section B, paragraph 5 of this SIR). In both cases the SQP will come into force at the same time as the safeguards agreement. 			

Table 4 – States with INFCIRC/66/Rev.2-type agreements		
State	INFCIRC	Additional protocol
India	211 260 360 374 433 754	Signed: 15 May 2009
Israel	249/Add.1	—
Pakistan	34 116 135 239 248 393 418 705	—

Table 5 – States with voluntary offer agreements		
State	INFCIRC	Additional protocol
China	369	In force: 28 March 2002
France ⁽¹⁾	290	In force: 30 April 2004
Russian Federation	327	In force: 16 October 2007
United Kingdom ⁽²⁾	263	In force: 30 April 2004
United States of America ⁽³⁾	288	In force: 06 January 2009
Footnotes:		
(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 is in force for that agreement.		
(2): The safeguards agreement reproduced in INFCIRC/175 is an INFCIRC/66/Rev.2-type safeguards agreement, concluded between the United Kingdom and the Agency, which remains in force.		
(3): 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. No additional protocol is in force for that agreement.		