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# **Nuclear Security Report 2015**

Report by the Director General

#### **Summary**

This report has been produced for the fifty-ninth regular session (2015) of the General Conference in response to resolution GC(58)/RES/11, in which the General Conference requested that the Director General submit an annual report on activities undertaken by the Agency in the area of nuclear security, and on external users of the Incident and Trafficking Database (ITDB) and on past and planned activities of educational, training and collaborative networks, as well as highlighting significant accomplishments of the previous year within the framework of the Nuclear Security Plan and indicating programmatic goals and priorities for the year to come. This report covers the period 1 July 2014-30 June 2015.

#### **Recommended Action**

It is recommended that the Board of Governors:

- Take note of the Nuclear Security Report 2015;
- Transmit this Report to the General Conference with a recommendation that Member States continue to contribute on a voluntary basis to the Nuclear Security Fund;
- Note that, ten years after its adoption, the 2005 Amendment to the Convention on the Physical Protection of Nuclear Material (CPPNM) has still not entered into force;
- Call upon all Parties to the CPPNM to ratify, accept or approve the 2005 Amendment as soon as
  possible; encourage all Parties to the Convention to act in accordance with the object and
  purpose of the Amendment until such time as it enters into force; implement the legally binding
  and non-binding international nuclear security related instruments; and invite States to make full
  use of the assistance available for this purpose through participation in the Agency's nuclear
  security and legislative assistance programmes;

- Encourage all States to join and participate actively in the ITDB programme and in the Agency's Working Group on Radioactive Source Security;
- Encourage those States that have yet to do so to nominate representatives to the Nuclear Security Guidance Committee and, by so doing, to contribute to the establishment of internationally agreed nuclear security guidance;
- Encourage Member States to voluntarily use the Agency's nuclear security advisory services and peer reviews for exchanges of views and advice on nuclear security measures, and the Agency to organize meetings to allow interested Member States to share experience and lessons learned, with due regard of the principle of confidentiality

# **Nuclear Security Report 2015**

Report by the Director General

#### A. Introduction

1. This report has been produced for the fifty-ninth regular session (2015) of the General Conference in response to resolution GC(58)/RES/11. In operative paragraph 33 of that resolution, the General Conference requested that the Director General submit an annual Nuclear Security Report on activities undertaken by the Agency in the area of nuclear security, and on external users of the Incident and Trafficking Database (ITDB) and on past and planned activities of educational, training and collaborative networks, as well as highlighting significant accomplishments of the previous year within the framework of the Nuclear Security Plan and indicating programmatic goals and priorities for the year to come. This report covers the period 1 July 2014–30 June 2015.

## B. The International Legal Framework

- 2. The Agency continued to facilitate adherence to and implementation of key international instruments for nuclear security. During the reporting period, adherence to the international instruments establishing the international legal framework for nuclear security has increased.
- 3. Three States became Parties to the Convention on the Physical Protection of Nuclear Material (CPPNM) and six States adhered to the 2005 Amendment thereto, bringing the number of Contracting States to the Amendment to 84. As at 30 June 2015, adherence to the Amendment by an additional 17 States was still needed to reach the total of two-thirds of Parties to the CPPNM required for the Amendment to enter into force.
- 4. The International Convention for the Suppression of Acts of Nuclear Terrorism gained five States Parties during the reporting period, bringing the total number to 99 as at 30 June 2015.
- 5. The Code of Conduct on the Safety and Security of Radioactive Sources is a non-binding international legal instrument that provides guidance for ensuring the control of radioactive sources and for mitigating or minimizing any consequences should control measures fail. The supplementary Guidance on the Import and Export of Radioactive Sources was developed in 2004 to support States' implementation of the Code. As at 30 June 2015, 125 States had informed the Agency's Director General of their intention to implement the Code of Conduct, and 94 States of their intention to implement the supplementary Guidance.

- 6. The Agency held a Treaty Event during the 58th session of the General Conference aimed at promoting universal adherence to the relevant multilateral treaties for which the Agency is depositary, including those relating to nuclear security. In addition, the Agency has maintained an enhanced programme of activities to encourage States to adhere to the 2005 Amendment to the CPPNM. This included one regional workshop for Russian-speaking States, and national workshops in the Philippines and Serbia to promote adherence to and implementation of the 2005 Amendment. As part of this programme, the Secretariat systematically uses other events such as regional Integrated Nuclear Security Support Plan (INSSP) meetings, legislative assistance activities and outreach activities in the margins of other major events to promote adherence to and implementation of the 2005 Amendment.
- 7. The Agency continued to facilitate implementation of such international instruments through regular activities within its legislative assistance programme.

## C. Major Meetings and Coordination

- 8. The Agency organized the International Conference on Advances in Nuclear Forensics: Countering the Evolving Threat of Nuclear and Other Radioactive Material out of Regulatory Control which was held in Vienna from 7 to 10 July 2014. The conference was attended by 285 participants and observers from 76 Member States and eight organizations.
- 9. This was the first international conference dedicated to nuclear forensics. Nuclear forensics plays an important role in a national nuclear security regime, in support of investigations for the purposes of law enforcement and of vulnerability assessments to identify areas for improvement of nuclear security. The Conference provided the opportunity to present recent scientific achievements and exchange experiences and lessons learned from the application of nuclear forensics; to review current practices in nuclear forensics and identify advances in analytical tools; to discuss ways of strengthening nuclear forensic capabilities and capacity building in nuclear forensics to ensure sustainability; and to explore mechanisms to enhance international and regional cooperation in nuclear forensics.<sup>1</sup>
- 10. The technical sessions of the Conference identified a number of key conclusions, including: the importance of age dating to determine the history of nuclear materials, the challenge of developing appropriate certified reference materials to improve confidence in the integrity of laboratory results, and the importance of involving all relevant scientific disciplines in nuclear forensics, including forensic science, environmental science and nuclear engineering.
- 11. The Border Monitoring Working Group (BMWG) is a mechanism established by the Agency in 2006 to coordinate the activities of the Agency and other major donors working in the area of effective border controls, in order to facilitate the implementation of programmes in Member States and reduce and eliminate duplication of efforts.
- 12. The BMWG continued its effort to optimize international assistance provided to enhance border monitoring, such as distribution of radiation detection equipment, development of related training

<sup>&</sup>lt;sup>1</sup> The President's findings are available at

programmes, and development of concepts of operation and standard operating procedures. A specific focus of the BMWG activities was to improve support to South-East Asian and African Member States through international train-the-trainer courses on radiation detection techniques, regional training courses on developing national detection systems and measures, provision of fixed and portable detection equipment through donations, and support for building national detection capacities at borders. In addition, the group undertook the complete revision of its joint training syllabus for front line officers to better address the needs of this specific audience.

- 13. The Agency attended the 18th meeting of the BMWG in December 2014 in Washington, DC, USA, and hosted the 19th meeting of the BMWG in May 2015 in Vienna. At the 19th meeting, the Agency took over the Chairmanship of the BMWG for the period 2015–2017. At the meetings, the BMWG agreed on future joint activities and coordination of assistance in relation to detection systems and measures, aiming to avoid duplication of effort.
- 14. The fourth meeting of the Working Group on Radioactive Source Security (WGRSS) took place in April 2015, with 60 participants from 43 Member States, and two observer organizations. The WGRSS discussed activities implemented through bilateral and multilateral initiatives and national efforts to improve the security of radioactive material worldwide, as well as the Agency's programme and activities. The outcome of this discussion will help to guide future activities such as conducting, upon request, advisory and peer review missions, developing regulatory approaches and sharing lessons learned, and tracking technologies for improving the security of radioactive material and associated facilities.
- 15. In several General Conference resolutions, Member States have encouraged the Secretariat to continue to play a constructive and coordinating role in other nuclear security related initiatives, within their respective mandates and memberships. Such initiatives include the Global Initiative to Combat Nuclear Terrorism (GICNT) and the Global Partnership Against the Spread of Weapons and Materials of Mass Destruction (Global Partnership).
- 16. In this regard, the Agency continued to participate as an official observer in the GICNT working groups on detection, nuclear forensics, and response and mitigation, as well in the Implementation and Assessment Group (IAG), to ensure that the work of the GICNT and the Agency continues to be complementary and duplication is avoided. The Agency participated in the following GICNT events:
  - Two tabletop exercises organized jointly by the detection and nuclear forensics working groups: "Northern Lights" in Helsinki, Finland (January 2015); and "Radiant City" in Karlsruhe, Germany (May 2015).
  - IAG meeting and "Atlas Lion" tabletop exercise in Rabat, Morocco (February 2015).
  - International mock trial "Glowing Tulip" in the Hague, Netherlands (March 2015).
  - Ninth Plenary Meeting in Helsinki, Finland (June 2015).
- 17. The Agency continued its participation in Global Partnership meetings, aiming to ensure coordination and avoid duplication of international efforts. The Agency participated in meetings under the German presidency in Berlin in November 2014 and in Munich in April 2015, where strategies to further improve communication between stakeholders were discussed in the context of specific programme areas including radioactive source security, nuclear security support centres and nuclear security culture. The Agency also led the discussion of the Global Partnership for comprehensive chemical, biological, radiological and nuclear (CBRN) security culture. The Agency shared its experience for the promotion of a strong nuclear security culture that may be applicable to the chemical and biological areas, including practical tools such as the self-assessment methodology and the systematic approach for nuclear security culture enhancement. As a result of these activities,

Global Partnership States appreciated the Agency's support, were better informed of Agency activities, and identified ways in which they could contribute to the Agency's activities while avoiding duplication of efforts.

- 18. In March 2015, the Agency published the proceedings of the October 2013 International Conference on the Safety and Security of Radioactive Sources: Maintaining the Continuous Global Control of Sources throughout their Life Cycle held in Abu Dhabi, United Arab Emirates.<sup>2</sup>
- 19. The Senior Regulators' Meeting, convened during the 58th session of the General Conference, discussed the challenges of licensing nuclear facilities with regard to considerations of nuclear security and of managing the interfaces with safety during the licensing process. The meeting emphasized the importance of the State's responsibility to establish and maintain an appropriate legal and regulatory framework for regulating nuclear security, and of the responsibility of the regulator to implement an appropriate regulatory framework for nuclear security on behalf of the State. An appropriate regulatory framework and effective implementation of that framework ensure that nuclear security measures taken by the licensee are adequate and provide confidence in the levels of protection afforded to nuclear and other radioactive material, and associated facilities and activities.
- 20. The International Conference on Computer Security in a Nuclear World: Expert Discussion and Exchange was organized by the Agency in Vienna from 1 to 5 June 2015. Attended by more than 700 participants and observers from 92 Member States and 17 organizations, this was the first time that a conference on the subject of computer security in the nuclear field had been held at the Agency. The Conference provided a global forum for information exchange and sharing of lessons learned for relevant competent authorities, operators, system and security vendors, as well as others involved in computer security activities relevant to nuclear security. International experts including senior officials and technical specialists gave over 200 presentations within the plenary and technical sessions.<sup>3</sup>
- 21. Key elements of the President's findings included: (a) the conference was successful in providing a global forum for discussion of computer security as it relates to nuclear security. However, the momentum developed during the conference should be fostered and sustained. In this regard, the conference participants requested further international and regional meetings to be held on the subject matter, coordinated by the Agency; (b) the international response to the conference demonstrated that the Agency should continue to grow in its leadership role in supporting Member States by developing timely international nuclear security guidance that addresses information and computer security. The conference played a crucial role in identifying global expertise in computer security; (c) computer systems and their interconnectivity are growing in complexity, and will continue to do so. Coordinated research and information exchange are needed to support both the prevention of and response to attacks on computer based equipment in nuclear security.

<sup>&</sup>lt;sup>2</sup> http://www-pub.iaea.org/MTCD/publications/PDF/Pub1667 web.pdf

<sup>&</sup>lt;sup>3</sup> The conference President's findings and conference presentations can be found at: <a href="https://nusec.iaea.org/portal/DivisionofNuclearSecurity/2015InternationalConferenceonComputerSecurity/Conference/tabid/1063/Default.aspx">https://nusec.iaea.org/portal/DivisionofNuclearSecurity/2015InternationalConferenceonComputerSecurity/Conference/tabid/1063/Default.aspx</a>

### D. Major Achievements

22. The following summarizes the major achievements, between 1 July 2014 and 30 June 2015, for the programme elements set out in the Nuclear Security Plan 2014–2017.

#### D.1. Needs Assessment, Information and Cyber Security

#### D.1.1. Incident and Trafficking Database Programme

- 23. Five States joined the Incident and Trafficking Database (ITDB) programme, bringing the total number of participating States to 131. During the reporting period, States reported or otherwise confirmed to the ITDB programme a total of 243 incidents. Of these, 116 occurred between 1 July 2014 and 30 June 2015, and the remaining 127 had occurred prior to 1 July 2014 but were not reported by that date.
- 24. Of the 243 reported incidents, 16 involved illicit possession of, and attempts to sell, nuclear material or radioactive sources, with six of these incidents involving nuclear material. All of the materials involved in these incidents were seized by the relevant competent authorities within the reporting State.
- 25. There were 61 reported cases of theft or loss of radioactive sources, ten of which involved the theft of Category 1, 2 or 3 radioactive sources. In two of these ten incidents involving dangerous sources, the radioactive sources have not yet been reported to the ITDB as having been recovered by relevant competent authorities within the reporting State.
- 26. A total of 169 reported incidents involved other unauthorized activities. These included the detection of unauthorized disposal of nuclear material and radioactive sources, the detection of material with radioactive contamination, the recovery of radioactive material outside of regulatory control and the discovery of nuclear material and radioactive sources in unauthorized or undeclared storage. One of the reports involved high enriched uranium (HEU).
- 27. In the reporting period, external users of the ITDB were the United Nations, the United Nations Office for Disarmament Affairs, the United Nations Office on Drugs and Crime, the United Nations Economic Commission for Europe, the International Civil Aviation Organization, the International Maritime Organization, the International Rail Transport Committee, the International Criminal Police Organization (INTERPOL), the Organisation for Co-operation between Railways, the Universal Postal Union, the World Customs Organization, the Police Community of the Americas (AMERIPOL), the European Commission (EC), the Institute for Transuranium Elements of the EC's Joint Research Centre, the European Atomic Energy Community, the European Police Office (Europol), and the Organization for Security and Co-operation in Europe. As is made clear in the ITDB Terms of Reference, these external users only receive "unrestricted information" reported in Part I (and not part II) of the ITDB incident notification form, which includes basic information concerning the type, form, amount and radiation levels of the nuclear or other radioactive material involved.

#### D.1.2. Information Outreach for the ITDB

- 28. During the reporting period, outreach efforts to promote the ITDB programme included the following regional and national workshops and consultancy meetings:
  - Regional Meeting on Nuclear Security Detection and Response: Information Exchange and Coordination, Romania, (November 2014);

- International Meeting on Benefits of Joining the ITDB programme, Vienna (November 2014);
- National Meeting on Nuclear Security Information and Exchange, Romania (April 2015);
- Meetings for the ITDB Web-based Resources and Preparatory Meeting for the July 2015
   ITDB Points of Contact Meeting, Vienna (January 2015).
- 29. The Agency participated in meetings organized by international organizations namely, INTERPOL Counter Smuggling Workshops held in July 2014 and the Europol Regional Workshop on Response to an Emergency from a Nuclear Security Event in October 2014, and Europol Regional CBRN Conference in June 2015. The outcome of these meetings included the development of plans for improvements to the ITDB user experience, raised awareness of the performance of national nuclear security detection architecture, and increased recognition of the significance of nuclear security threats around the world.

#### **D.1.3.** Information Tools and Analysis

- 30. An online tool for reporting incidents to the ITDB (the Web Incident Notification Form, WebINF) was released in November 2014. During the period covered by this report, 13 States used the online mechanism to submit reports. The tool offers a more streamlined mechanism for reporting and creates the opportunity for States, on a voluntary basis, to provide additional information concerning incidents. The WebINF tool allows the States' Points of Contact (POCs) to process draft WebINF incident reports internally, allowing multiple authorized users to contribute to the drafting process, and to submit the WebINF incident report when all relevant information has been confirmed. The WebINF tool also allows the Secretariat to request additional information and States' POCs to submit subsequent updates. All of these exchanges are processed within the ITDB Restricted Area in the Nuclear Security Information Portal (NUSEC), thus meeting the necessary confidentiality requirements.
- 31. Through another software tool, WebITDB, States have also continued to benefit from online access to basic information concerning incidents in the ITDB. A total of 98 users from 57 States and five international organizations made 450 queries during the reporting period.
- 32. Following the request of the ITDB Points of Contact Meeting in July 2012 to resume the production of biennial analysis reports, a 2013–2014 analysis report was prepared during the reporting period, which will be discussed in the Points of Contact meeting in July 2015. This report, which will be made available to ITDB POCs, covers analysis of 332 incidents representing 10% of the total number of incidents reported to the ITDB, and will be finalized after the July 2015 meeting.

#### **D.1.4. Integrated Nuclear Security Support Plans**

- 33. The Agency continues to give high priority to the development and implementation of Integrated Nuclear Security Support Plans (INSSPs) to assist States, upon request, in applying a structured and holistic approach to nuclear security capacity building and enabling increased coordination between the Agency, the State concerned and potential donors to ensure appropriate allocation of resources and reduce duplication of efforts.
- 34. During the reporting period, 13 Member States formally approved their INSSPs, bringing the number of approved INSSPs to 67. An additional eight Member States and one non-Member State finalized new INSSPs and are in the process of approving them, and 16 Member States with existing INSSPs held joint review meetings with the Agency to update their INSSPs.

- 35. To enhance cooperation with States in developing and implementing their country-specific INSSPs and coordination between States with similar needs and priorities, the Agency held four regional workshops, in Egypt, Indonesia, the Republic of Moldova and the United Republic of Tanzania, during the reporting period. The workshops brought together States in the region with INSSPs and helped to identify common and specific nuclear security needs at the regional level and national level, and discussed ways to meet such needs, including through bilateral, regional and international cooperation.
- 36. Pursuant to General Conference resolution GC(58)/RES/11, which encouraged the Secretariat to continue, in cooperation with Member States, to play a constructive and coordinating role in other nuclear security-related initiatives, the Agency organized, with the permission of the States taking part in the meetings, dedicated sessions on international cooperation in nuclear security, bringing together interested recipient States, partner countries and nuclear security-related organizations and initiatives, to discuss and optimize nuclear security assistance. Such workshops were carried out in Egypt and the United Republic of Tanzania during the reporting period.

#### **D.1.5.** Nuclear Security Information Portal

37. The Agency has continued to develop the Nuclear Security Information Portal (NUSEC). A major server upgrade was performed in March 2015 to achieve better system stability and performance. The NUSEC portal currently has over 2500 registered users from 150 Member States and 19 organizations. The NUSEC approval process has been simplified to allow the Secretariat to be responsible for approving new accounts, which has proven to be much more efficient. A new NUSEC user group has been established focusing on nuclear security culture.

#### D.1.6. Nuclear Security Information Management System

- 38. Work has continued to further develop the Nuclear Security Information Management System (NUSIMS), which provides a web-based platform for States to perform self-assessment, and to collect, manage and maintain country-specific information relevant to nuclear security on a voluntary basis. The structure of the self-assessment system has been derived from the Fundamentals and Recommendations in the IAEA Nuclear Security Series. The system is designed to assist States in reviewing their nuclear security infrastructure and tracking their progress; it also facilitates the systematic identification and prioritization of needs and allows the Agency to provide, upon request, a more tailored approach to meeting particular States' requests.
- 39. During the reporting period, 27 Member States voluntarily nominated Points of Contact for NUSIMS, bringing the total number to 72. Five sub-regional meetings to introduce NUSIMS to Points of Contact took place in Cameroon, Costa Rica, Hungary, Morocco and Zimbabwe in the second half of 2014. The Agency used these opportunities to collect feedback and recommendations for improvement of the system. Six national workshops on NUSIMS, combined with INSSP reviews, also took place in Cambodia, Mauritania, the Philippines, Uganda, the United Republic of Tanzania and Zambia. The objective of these meetings was to assist the States to complete NUSIMS self-assessment questionnaires and to use the self-assessment results for the INSSP review in order to identify needs for improvements and assistance. Based on the feedback and suggestions collected from the regional and national meetings, the NUSIMS self-assessment questionnaires have been revised and updated; to make NUSIMS more user-friendly and suitable for all Member States.

#### D.2. Supporting the Nuclear Security Framework Globally

#### **D.2.1.** Nuclear Security Guidance Committee

- 40. During the reporting period, the Nuclear Security Guidance Committee (NSGC) completed its first three-year term, and the first meeting of the second term was held in June 2015. In his end-of-term report, the NSGC Chairman concluded that the NSGC had achieved a great deal, most notably establishing and successfully implementing a process for reviewing and approving IAEA Nuclear Security Series publications, identifying priorities for the development of the IAEA Nuclear Security Series and establishing a roadmap, and defining and implementing, jointly with the Safety Standards Committees, a process for and approach to addressing safety–security interfaces in nuclear security guidance and safety standards.
- 41. Four Implementing Guides previously approved by the NSGC were published during the reporting period:
  - Radiological Crime Scene Management (IAEA Nuclear Security Series No. 22-G);
  - Security of Nuclear Information (IAEA Nuclear Security Series No. 23-G);
  - Risk Informed Approach for Nuclear Security Measures for Nuclear and Other Radioactive Material out of Regulatory Control (IAEA Nuclear Security Series No. 24-G); and
  - Use of Nuclear Material Accounting and Control for Nuclear Security Purposes at Facilities (IAEA Nuclear Security Series No. 25-G).
- 42. Two other approved Implementing Guides, on security in the transport of nuclear material and on nuclear forensics in support of investigations (revision of IAEA Nuclear Security Series No. 2), are being prepared for publication.
- 43. The NSGC has also approved for publication two Implementing Guides, on regulations and associated administrative measures for nuclear security and on physical protection of nuclear material and nuclear facilities (implementation of INFCIRC/225/Revision 5), and Technical Guidance on self-assessment of nuclear security culture.
- 44. Five other draft publications have completed the 120-day Member State comment period, and Member States' comments are being incorporated before submission of final drafts to the NSGC for approval to publish. These draft publications address:
  - Nuclear forensics in support of investigations (Implementing Guide);
  - Sustaining a nuclear security regime (Implementing Guide);
  - Preventive and protective measures against insider threats (Revision of IAEA Nuclear Security Series No. 8) (Implementing Guide);
  - Security of instrumentation and control systems at nuclear facilities (Technical Guidance); and
  - Establishing a system for control of nuclear material at a nuclear facility during storage, use and movement (Technical Guidance).
- 45. A further two draft Implementing Guides have been approved by the NSGC for submission to Member States for comment, on developing a national framework for managing the response to nuclear security events and on building capacity for nuclear security.

- 46. Some 20 other guidance publications (Implementing Guides and Technical Guidance) are currently in development, covering various topics across the range of nuclear security, in accordance with the 'roadmap' agreed with the NSGC. These include:
  - Revisions of two existing Implementing Guides, on the nuclear security of radioactive material in use and storage (revision of IAEA Nuclear Security Series No. 11) and in transport (No. 9), and of Technical Guidance on a model academic curriculum on nuclear security (No. 12). A Technical Meeting on the revision of IAEA Nuclear Security Series No. 11, including the extension of its scope from radioactive sources to all radioactive material, was held in March 2015;
  - Development of a set comprising one cross-cutting Implementing Guide and two Technical Guidance publications specific to nuclear facilities to replace the existing Technical Guidance on computer security (IAEA Nuclear Security Series No. 17); and
  - Development of an Implementing Guide on nuclear security during the lifetime of a nuclear facility, aiming to supplement existing guidance focused on operational facilities with guidance on nuclear security issues to be addressed before operation (e.g. during siting, design and construction) and after operation (e.g. during decommissioning).
- 47. As suggested by the Joint Task Force of the Advisory Group on Nuclear Security (AdSec) and the Commission on Safety Standards, which recommended establishing the NSGC, and as requested by the NSGC itself, a review was carried out of the committee structure for development and review of nuclear security guidance. The review was led by the Agency's Office of Internal Oversight Services, and focused on the NSGC, the Interface Group, and the activities of the four Safety Standards Committees in relation to safety–security 'interface documents'. The review team welcomed the progress made with the existing structure and recommended a number of short-term and medium-term actions aimed to further improve its effectiveness. Following discussion of the recommendations internally and with Member States (including with the NSGC), it was decided that the structure would remain fundamentally unchanged for a second three-year term of the NSGC, and that a further review would be conducted in the second half of that term, taking account of the additional experience gained.

#### D.2.2. Guidance related to the Code of Conduct

48. In October 2014, the Agency held an open-ended meeting of legal and technical experts to develop internationally harmonized guidance on the management of disused sources under the Code of Conduct on the Safety and Security of Radioactive Sources. The meeting was attended by 162 experts from 73 Member States. The Chairman's report supported the initiative to develop guidance on the management of disused sources as supplementary guidance under the Code of Conduct.

#### D.2.3. Advisory Group on Nuclear Security

49. The Director General's Advisory Group on Nuclear Security (AdSec) had one full meeting and several small working group meetings during the reporting period. The full AdSec meeting in October 2014 discussed reports from meetings of the working groups held between April and August 2014, and provided advice to the Director General in the form of a report of the meeting and a letter from the AdSec Chairman. The working groups are meeting again between May and July 2015, and the reports from these meetings will be considered by AdSec at its full meeting in November 2015.

#### **D.3.** Coordinated Research Projects

- 50. The Nuclear Security Plan for 2014–2017 was the first to include coordinated research projects (CRPs) as a separate activity area. During this reporting period, the Agency continued to implement CRPs in the following areas:
  - Nuclear security assessment methodologies (NUSAM): Research continued with the Agency hosting seven consultancies and one Research Coordination Meeting (RCM) during the reporting period to enable the various working groups to further refine and improve the overall NUSAM effort. In addition to documenting security assessment methods, the NUSAM project is also developing case studies as examples of how to apply the methodologies through three case study working groups, addressing application at a nuclear power plant (NPP), at an irradiator facility and for transport. These case studies and documentation of the overall methodologies are planned to be complete by the end of 2016.
  - Identification of high confidence nuclear forensics signatures for the development of a national nuclear forensics library: During the reporting period the first RCM was held, at which research results were presented by the investigators. A key finding was the strength of analytical and computational simulation tools working in concert to measure and predict high confidence signatures reflective of each stage of the nuclear fuel cycle and those associated with radioactive sources. The RCM also noted that the research programme over the next two years should focus on methods and criteria for categorizing and prioritizing nuclear forensics signatures for determining the provenance of nuclear and other radioactive material.
  - Systems and measures to improve the assessment of initial alarms from radiation detection instruments: This CRP will provide peer reviewed and validated methodologies for assessing primary and secondary alarms from radiation detection instruments and for providing confidence that nuclear and other radioactive material out of regulatory control is detected and, following alarm assessment (adjudication), that appropriate response actions are initiated. A computerized system to help the decision of front line officers to adjudicate the alarm will be developed on the basis of this peer review. The initial meeting of parties involved was held in February 2015.
- 51. Details of CRPs initiated during the reporting period are as follows:
  - Nuclear material accountancy and control (NMAC): Preparations for a CRP on NMAC
    and the insider threat commenced in February 2015. The objective of the CRP is to
    identify improvements in measures to prevent and protect against nuclear material theft
    and sabotage by insiders at nuclear facilities.
  - Development of nuclear security culture enhancement solutions: The CRP was opened for research agreement or contract proposals in 2015. This CRP is expected to further advance the effort to provide practical tools for Member States to apply and promote an effective nuclear security culture in their respective organizations and activities.
  - Research reactors and associated facilities: The objective of this CRP is to simplify the
    process to determine the need for, and enhance the effectiveness of, nuclear security
    systems at research reactors and associated facilities.

# D.4. Assessment through Self-Assessment and through Peer Review Missions

#### D.4.1. Nuclear Security Evaluation Mission and Advisory Services

#### **International Physical Protection Advisory Service**

- 52. During the reporting period, four International Physical Protection Advisory Service (IPPAS) missions were conducted, upon request, to Armenia, Belgium, Indonesia and Japan. The Agency received 12 requests for future IPPAS related missions in 2015–2016 from Albania, Belarus, Canada, Jamaica, Malaysia, New Zealand, Norway, Poland, Sweden, Turkey, the United Arab Emirates and the United Kingdom.
- 53. The Agency held a regional workshop in Peru and seven national IPPAS workshops (in Albania, Armenia, Canada Indonesia, New Zealand, Poland and Turkey) during the reporting period to establish a clear understanding among Member States on the processes in preparing and conducting IPPAS missions, as well as the benefits of such missions.
- 54. In November 2014, the Agency published *International Physical Protection Advisory Service* (IPPAS) Guidelines (IAEA Services Series No. 29), consisting of a general part and five modules. These guidelines will further enhance the processes of preparation and conduct of IPPAS missions, and facilitate self-assessment of physical protection regimes in Member States.
- 55. As global recognition of the value of an IPPAS mission increases and the number of requests for such missions also increases, the Agency requires a large pool of international subject matter experts to satisfy these requests. To help increase the number of such experts, the Agency conducted the first international training course for potential IPPAS team members, which was attended by 62 participants, from 15 to 19 December 2014 at the Agency's Headquarters. The participants provided positive feedback on the format and quality of the event. In particular, the case studies used within the training courses were highlighted as being a positive feature and participants suggested that this part of the course be expanded. Based on this feedback, the Agency will conduct similar courses in the future.
- 56. Based on Member States' feedback during the IPPAS seminar held in December 2013 in Paris, France, the Agency is creating a database containing information on good practices identified in IPPAS mission reports. The information will be adjusted to prevent a reader from identifying a State, an organization or a facility within a State. These good practices will be organized by modules and topics consistent with the IPPAS guidelines in order to make this database user friendly. The goal of this effort is to make this information available on NUSEC, following consultation and coordination with the respective host States to confirm that the information may be shared.

#### **International Nuclear Security Advisory Service**

- 57. The Agency is currently developing new guidelines for the International Nuclear Security Advisory Service (INSServ), to ensure they are compatible with, and complementary to, the IPPAS guidelines. IPPAS missions assess a State's nuclear security regime in relation to regulated activities for nuclear and other radioactive material, associated facilities and associated activities. INSServ missions provide a peer review and advisory service for a State's national nuclear security regime as it relates to nuclear and other radioactive material out of regulatory control.
- 58. During the reporting period, the Agency completed a modular INSServ mission to Qatar focusing on detection and response systems and measures, an INSServ mission to South Africa

focusing on border monitoring, and a follow-up INSServ mission to Sri Lanka focusing on updating the current INSSP and developing a sustainable detection and response strategy for the State.

59. The Agency is working toward the provision of tailored peer review missions to meet the specific needs of Member States. With the participation of experts from five Member States, the Agency conducted a tailored peer assistance mission to Jordan in June 2015, to assist with the establishment of its nuclear security infrastructure.

#### **Integrated Nuclear Infrastructure Review Missions**

- 60. The Agency continues to provide support to States embarking on a nuclear power programme through the Integrated Nuclear Infrastructure Review (INIR) missions which are coordinated by the Department of Nuclear Energy. During the reporting period, experts in nuclear security from the Agency provided support to follow-up missions to Jordan and Viet Nam.
- 61. To address the needs of Member States embarking upon nuclear power programmes, expert missions focused on nuclear security were conducted in Egypt, Jordan and Viet Nam during the reporting period. These missions used training materials to assist these States to develop their regulatory framework to support the review of nuclear security within their licensing process, to assess their current capacity to assess requirements for nuclear security within their regulatory framework, and to assess their capacity building needs for regulation of nuclear security, including the licensing of nuclear facilities.

#### **D.5.** Human Resources Development

#### **D.5.1.** Nuclear Security Training

- 62. The Agency provided nuclear security training to over 3200 individuals over 150 training courses and workshops, an increase of 10% over the previous reporting period. The Agency conducted national training courses and workshops in 30 States, 16 of which have approved INSSPs. The courses covered a wide variety of nuclear security topics, including threat assessment, vulnerability assessment, protection against sabotage, physical protection of nuclear material and facilities, insider threats, training for States embarking on nuclear power programmes, security of radioactive sources, security in the transport of nuclear and other radioactive material, nuclear security culture, nuclear forensics, radiological crime scene management, radiation detection techniques and computer security. Feedback from the course participants indicated that these courses have raised awareness and strengthened national capacities in nuclear security.
- 63. Training material was developed or revised for the following areas:
  - Threat assessment and the risk informed approach for nuclear and other radioactive material out of regulatory control: Material was developed to provide Member States with an overview of threat and risk assessments and how the application of the risk informed approach can assist in the planning, design and implementation of nuclear security systems.
  - A curriculum for a training course based on the Implementing Guide *Nuclear Security Systems and Measures for Major Public Events*: The training course is an awareness-level course targeted to the host country's designated coordinators responsible for security at major public events, representatives of national nuclear authorities and other professionals from organizations responsible for the management and coordination of activities associated with nuclear security.

64. Five new e-learning modules were launched in December 2014, covering transport security, computer security, nuclear material accounting and control for nuclear security, radiological crime scene management and physical protection. These modules are based on the Agency's nuclear security guidance and provide an introduction to the basic principles of nuclear security for personnel of nuclear facilities and interested members of the public. Intended to complement face-to-face training events and other events in the field of nuclear security, these modules help to build a common understanding of the Agency's terminology and basic scope of each topic. Successful completion of the relevant module is a prerequisite for a number of Agency nuclear security training activities, to ensure that all course participants have the same basic understanding of key concepts in nuclear security, allowing courses to focus on more technical or advanced aspects of the training. Together with the existing module on the use of radiation detection instruments for front line officers, the six e-learning modules on nuclear security are available on the nuclear security training portal.

#### **International Network for Nuclear Security Training and Support Centres**

- 65. In order to coordinate current and future efforts in States or regions to establish and maintain Nuclear Security Support Centres (NSSCs), the Agency continues to organize and facilitate meetings for the International Network for Nuclear Security Training and Support Centres (NSSC Network).
- 66. The Working Group Meeting of the NSSC Network was held in August 2014 and was attended by 42 participants from 29 Member States and other interested parties. In the margins of this meeting, the chairs and vice-chairs of the NSSC Network and the International Nuclear Security Education Network (INSEN) held a joint meeting to discuss potential collaboration points and share information. The Asia Regional Network (ARN) also met in August 2014 to continue to foster collaboration and information sharing efforts among NSSCs from China, Japan and the Republic of Korea.
- 67. The Annual Meeting of the NSSC Network was held in February 2015 and was attended by 60 participants from 47 Member States and other interested parties. The NSSC Network has grown steadily from its original 16 members in 2012, to 39 members in 2014, and further to 50 members as at June 2015. The ARN met during regional breakout sessions of the NSSC Network. The NSSC Network and INSEN members held a joint half-day meeting to further explore collaboration possibilities between their education and training activities. This plenary session was followed by the second joint meeting of the leadership of the NSSC Network and INSEN, where topics for joint cooperation were identified in further detail and discussions continued on collaboration between education and training.
- 68. Growing collaboration between the networks was also visible through other initiatives. The Joint Mapping Project of the NSSC Network and INSEN was developed and launched on the NUSEC Portal at the August 2014 Working Group meeting to provide the two networks with access to a world map of NSSC Network and INSEN institutions and their basic information and capacities, with the aim of supporting further regional cooperation and networking within and among the Networks.<sup>4</sup>

#### **D.5.2.** Nuclear Security Education

69. The Agency continued to facilitate the development of nuclear security education through the INSEN, the membership of which grew from 100 (from 41 Member States) to 134 (from 49 Member States). INSEN held its fifth annual meeting in August 2014. The annual meeting was attended by 75 participants from 32 Member States, and other interested stakeholders. Each INSEN working group

<sup>&</sup>lt;sup>4</sup> The Chair's reports of the outcomes of the meetings are available at: <a href="http://www-ns.iaea.org/security/nssc-network.asp?s=9&l=76">http://www-ns.iaea.org/security/nssc-network.asp?s=9&l=76</a>

produced an action plan for the next six months, which included specific, prioritized tasks with assigned responsibilities and deadlines. The interim INSEN working group meeting was held in February 2015 to review the progress of completing the assigned tasks. It was attended by 72 participants from educational institutions representing 32 Member States, four international organizations, and one observer.

- 70. The Pilot European Master of Science course in Nuclear Security was successfully completed in December 2014 with six students graduating having defended their theses. The Master's programme will be introduced in at least two universities or university consortia in 2015 and 2016. In addition, several universities are, or will be, offering a Master of Science degree in safety, security and safeguards.
- 71. INSEN members continue to develop textbooks and teaching materials on nuclear security in accordance with IAEA Nuclear Security Series No. 12, *Educational Programme in Nuclear Security*. Textbooks currently under development include an introduction to nuclear security, and detection of unauthorized acts involving nuclear and other radioactive material. Also planned for completion in 2015 are the textbook and teaching materials on the legal framework for nuclear security.
- 72. In order to help institutions better deliver courses using the aforementioned material, the Agency continues to support professional development courses (PDCs) for faculty members of INSEN institutions. In 2014–2015, several PDCs were designed and completed by King's College London, including Introduction to Nuclear Security, Nuclear Security Regulations, Security Culture, Nuclear Material Accounting and Control for Nuclear Security, and Addressing the Insider Threat. Since their inception, the PDCs have been attended by over 200 faculty members from almost 40 countries. Additional PDCs are planned for 2015 and 2016, including on Nuclear Security Culture, Computer and Information Security for Nuclear Security, and Introduction to Nuclear Security.
- 73. The Agency conducted the fifth annual two-week intensive school for young professionals in nuclear security at the International Centre for Theoretical Physics (ICTP) in Trieste, Italy from 27 April to 8 May 2015. Forty-five participants from regulatory authorities, universities, research institutions, government ministries and law enforcement agencies in 44 Member States attended. The school provided the participants with a broad knowledge base of nuclear security topics reinforced by practical exercises and a technical visit to observe border monitoring equipment at a working seaport. The school participants also attended a high level workshop, organized by Italy, on the Nuclear Security Summit 2016 and Beyond: The Role of Training and Support Centres, and Centres of Excellence, in Bologna, Italy.
- 74. In order to meet increasing demands for such schools, the first regional school on nuclear security took place in Jakarta, Indonesia, from 13 to 24 October 2014, with 36 participants from 11 Member States of the Asia and the Pacific region. The regional school has a similar structure to the Trieste international school and combines theoretical sessions with practical exercises and a technical visit to a local facility. Additional schools are planned for the regions of Africa, Latin America, and for Russian, Arabic and French speaking countries.

#### D.6. Risk Reduction and Security Improvement

75. Through General Conference resolutions, Member States have recognized physical protection as a key element in nuclear security. In the course of the reporting period, the Agency continued to implement physical protection upgrades for nuclear facilities including NPPs and research reactors, as well as upgrading physical protection at a number of locations holding high activity radioactive sources.

#### **D.6.1. Threat Characterization and Assessment**

- 76. The Agency continued to identify and address new and evolving threats to help States reduce the risk to nuclear and other radioactive material, associated facilities and associated activities as well as the risk from nuclear and other radioactive material out of regulatory control.
- 77. An International Workshop on the Lessons Learned from Design Basis Threat Workshops and the Use of a Threat-Based Approach for the Regulation of Nuclear Material and Nuclear Facilities was held in Vienna from 30 June to 4 July 2014. Representatives of 30 Member States discussed their experiences in implementing a design basis threat based approach or in applying other approaches to threat assessment in their nuclear security regimes. Workshop participants emphasized the importance of a threat based approach in the regulatory framework and the use of threat information to design, operate and regulate physical protection systems of nuclear and other radioactive materials, facilities and activities. The workshop resulted in a number of suggestions to improve the work of the Agency in this area and highlighted specific areas where more guidance is needed within the IAEA Nuclear Security Series.
- 78. A Technical Meeting on Preventive and Protective Measures against Insider Threats at Nuclear Facilities was held in Vienna in October 2014. The topics discussed included: proposed revisions to the Implementing Guide *Preventive and Protective Measures against Insider Threats* (IAEA Nuclear Security Series No. 8); the use of accounting and control as a means to detect insider activities; implementation of trustworthiness programmes at nuclear facilities; and good practices regarding measures against insiders. A total of 44 participants from 27 States (and two from other international stakeholders) discussed issues and identified actions related to the Agency's technical programme for providing guidance and assistance to States in their efforts to secure nuclear material and facilities from insider threats. The participants also discussed and shared the experiences gained in implementing insider threat security programmes and ways in which the Agency may be of assistance in this area.

#### **D.6.2.** Nuclear Security Culture in Practice

- 79. The Agency continued to advance its efforts to assist in risk reduction through the development of a nuclear security culture self-assessment methodology and enhanced support for its application. The Agency extended its support to medical institutions by introducing the concept of nuclear security culture to these institutions in a national workshop in Malaysia, the first Agency initiative in nuclear security culture in medical institutions in December 2014. The Agency also implemented, in April 2015 in Malaysia, a pilot project of coordinated activities to assist States to establish nuclear security culture systems in medical institutions, which included a nuclear security culture self-assessment workshop and a security culture trial, with more than 30 participants from 11 institutions. This project included lectures, group discussions and exercises, but also simulation practices for self-assessment planning, survey development, and analysis of survey results. These simulation practices greatly helped the participants deepen their understanding of the security culture self-assessment methodology and familiarized them with self-assessment practices, thereby facilitating its application in their respective institutions.
- 80. The side event of the 58th General Conference, "Nuclear Security Culture in Practice, IAEA Global Approach", attracted 70 participants and focused on the need for political attention and initiatives for promoting an effective nuclear security culture. This included a demonstration of the Agency's nuclear security culture self-assessment methodology, its applications, and related Agency activities. The success of the side event demonstrated the need of Member States for practical solutions to promote, enhance, and sustain a strong nuclear security culture and highlighted the

importance of continuous development and improvement of guidance, methodologies, and tools for the benefit of Member States.

#### D.6.3. Nuclear Security for Nuclear Fuel Cycle Facilities and Associated Activities

- 81. In cooperation with the Government of the USA, the 25th International Training Course on Physical Protection of Nuclear Material and Nuclear Facilities was conducted from 19 April to 8 May 2015 in Albuquerque, New Mexico, with 43 participants from 37 Member States.
- 82. Member States, especially newcomer States, have requested detailed guidance to assist them on nuclear security during the licensing of nuclear activities. During the reporting period, the Agency began development of two documents to provide advice and good practices on the licensing of nuclear facilities. One will focus on nuclear security during the licensing process for NPPs. This will address evaluation of nuclear security during all stages of the licensing process, including construction, commissioning and operation. The second document will address similar issues, but focusing on regulatory assessment of nuclear security within the licensing framework for research reactors.

# **D.6.4.** Nuclear Material Accountancy and Control Relevant to Nuclear Security at Facilities

83. A pilot project on assessment of a nuclear materials accounting and control (NMAC) system for purposes of nuclear security was completed at Harwell, United Kingdom, in July 2014. The pilot assessment applied technical criteria developed to assess the NMAC system used by a facility. An international team of NMAC experts completed a pilot field exercise, identified good practices, and made suggestions for consideration to the host country. As a result of the pilot project and through past consultancy meetings, representatives from the Harwell site have shared their thoughts on what worked and what did not. The next step is to complete and validate an IPPAS module for NMAC, to be added to the existing IPPAS modules.

#### **D.6.5. Securing Radioactive Sources**

- 84. During the reporting period, projects to secure high activity sources in use were initiated in Venezuela and Viet Nam, and the first phase of physical protection upgrades for high activity sources was completed in Cuba. Support continued to be provided to maintain 21 installed remote monitoring systems in 12 Member States: this included the provision of spare parts, remote support and user training.
- 85. The Agency's work with Member States for managing disused sources focused on the establishment of comprehensive and sustainable national strategies. Assistance to manage disused sources through transport to and consolidation at national storage facilities was initiated in Colombia and Lebanon during the reporting period.
- 86. Three high activity disused sources were exported from Honduras for recycling, and one high activity disused source was exported from Morocco. Two high activity sources in Lebanon were repatriated to France during the reporting period.
- 87. By ensuring that the assistance provided to Member States for managing disused sources utilized national capabilities as much as possible, the Agency improved the security of high activity source material while making the most efficient use of resources.

#### **D.6.6.** Transport Security

88. Materials developed by the Agency in conjunction with a Member State for nuclear material transport security exercises were used and tested in Sweden in two national pilot exercises

(one tabletop and one field exercise) organized in cooperation with the Agency during the reporting period. The Agency also organized technical visits to the two exercises to allow international experts to attend and share experiences from the exercises.

- 89. Following the two pilot exercises, the exercise material was further developed to also be applicable for radioactive material transport security exercises. This material has been used and tested in radioactive material transport security tabletop exercises organized in cooperation with the Agency in Morocco and Spain during the reporting period.
- 90. The Agency has assisted three Member States (Egypt, Jordan and Nigeria) in the development of national transport security regulations during the reporting period.

#### D.6.7. Repatriation of High Enriched Uranium

91. The Agency assisted in the removal of 10.2 kg of HEU fresh fuel from the research reactor in Almaty, Kazakhstan, to the Russian Federation by air in September 2014 and of a further 36 kg in December 2014.

#### **D.6.8. Establishing Effective Detection Architecture**

- 92. During the reporting period, the Agency donated 236 personal radiation detectors, 42 radionuclide identification devices, 18 neutron search devices and eight portable radiation scanners to Member States. In addition, the Agency contributed to the sustainability of the use of donated equipment by providing help desk support for the repair of 43 instruments in the possession of Member States. Similarly, 87 pieces of radiation detection equipment were loaned to three Member States to support the conduct of national workshops.
- 93. Border monitoring upgrade projects involving the deployment of 14 fixed installed system radiation portal monitors and integrated nuclear security networks were carried out during the reporting period. The Agency is leading the development of a simulator of a central alarm station and national data analysis centre for training centres in Member States, to provide a training tool for operators of fixed-installed border control equipment.
- 94. The Agency undertook performance testing of all the equipment supplied to Member States prior to its delivery. In addition to the instruments in the equipment pool, the Agency undertook performance tests for high resolution spectrometry systems, mobile detection systems (backpacks), radioisotope identification devices, neutron search devices and personal radiation devices during the reporting period.
- 95. A new project to establish sustainable detection systems and measures in Chile was initiated during the reporting period. The objective of this project is to establish sustainable detection systems and measures in the country through the pilot deployment of radiation detection equipment (both fixed and handheld) at selected border crossing points, green border areas and expert support organizations.

#### **D.6.9.** Major Public Events

96. The Agency has provided, upon request, assistance to Member States holding major public events to strengthen the implementation of nuclear security measures before and during the event. Such assistance is normally provided under a joint action plan that may include: 'train—the-trainers' courses on radiation detection at venues and strategic locations; on-the-job training for experts from mobile expert teams; seminars and exercises; development and/or revision of specific technical procedures; selection, provision, loan and deployment of radiation detection equipment; exchanges of information; consultation on emergency preparedness and response; and Technical Meetings to

prepare outreach reports. The Agency provided support for nuclear security for the following major public events:

- In Burkina Faso, the extraordinary Summit of the African Union on Employment, Poverty Eradication and Inclusive Development "Ouaga + 10" (September 2014).
- In Peru, the UN Climate Change Conference (December 2014).
- In Azerbaijan, the Baku 2015 European Games (June/July 2015).
- In the Philippines, preparatory work for the Asia-Pacific Economic Cooperation (APEC) Summit in November 2015.
- In Viet Nam, preparatory work for the Hung Temple Festival in March/April 2016.
- 97. In May 2015, the Agency organized a seminar on lessons learned from major public events held, in cooperation with the National Nuclear Energy Commission (CNEN), in Rio de Janeiro, Brazil. The objective of the Seminar was to provide an international forum for exchange of information, sharing good practices, discussing advanced topics related to nuclear security measures and systems for major public events, and on the lessons learned from previous such events that have been organized in Brazil. This was the first time that the implementation of nuclear security measures and systems for major public events has been discussed in an international forum, and the seminar attracted 108 delegates from 22 Member States. The seminar provided opportunities for 18 invited speakers from Member States to share their countries' experiences on the implementation of nuclear security measures during planning, preparedness and implementing main event phases. The participants acknowledged the common challenges that have been encountered during the preparation and implementation of nuclear security systems and measures for major public events worldwide. In addition, the Seminar drew conclusions and proposals for the path forward to a global approach for nuclear security at such events.
- 98. The Agency will take account of the outputs of the seminar in establishing programmes based on the Implementing Guide *Nuclear Security Systems and Measures for Major Public Events* (IAEA Nuclear Security Series No. 18), including training and assistance programmes, joint programmes with the US Department of Energy and Joint Action Plans.

#### D.6.10. Radiological Crime Scene Management

99. The Agency has improved the training curriculum on radiological crime scene management by developing a set of methodological instructions on radiological crime scene management procedures and initiating the translation of training material into French and Spanish. The aim of the training course is to strengthen the ability of Member States to ensure safe, effective and efficient operations at a crime scene where nuclear or other radioactive material is known or suspected to be present. During the period covered by this report, in collaboration with experts from Member States and INTERPOL, the Agency conducted workshops on radiological crime scene management in Algeria, Malaysia, Morocco and Spain.

#### **D.6.11. Nuclear Forensics**

100. Nuclear forensics was included as part of the agenda of the IAEA International Experts' Meeting on Assessment and Prognosis in Response to a Nuclear or Radiological Emergency in April 2015 in Vienna. An important conclusion of the meeting was the importance of conducting nuclear forensic examination safely and securely to protect the public and responders as well as the integrity of the nuclear forensics evidence.

## E. Management Issues

#### E.1. Funding

- 101. Expenditure in the period from 1 July 2014 to 30 June 2015 was €26 663 502. This expenditure comprised disbursements (€20 915 457) plus unliquidated obligations (€5 748 045).
- 102. In the course of the reporting period, the Agency accepted pledges to the Nuclear Security Fund from Belgium, Canada, China, Germany, Denmark, Estonia, Finland, France, Indonesia, Italy, Japan, the Republic of Korea, the Netherlands, Norway, New Zealand, the Russian Federation, Spain, Sweden, the United Kingdom, the United States of America and Zimbabwe.

#### F. Goals and Priorities for 2015–2016

103. In addition to the ongoing priorities identified by Member States, including physical protection activities, the main nuclear security programmatic goals and priorities for 2015–2016 are the following:

- To prepare and organize the International Conference on Nuclear Security: Commitments and Actions, 5–9 December 2016.
- To continue to promote the entry into force of the 2005 Amendment to the CPPNM and hold a meeting of Points of Contact of the CPPNM.
- To develop guidance in the IAEA Nuclear Security Series in accordance with the publications plan "roadmap" endorsed by the NSGC and provide for their use upon request through, inter alia, education and training, advisory services and peer reviews.
- To further promote coordinated research projects (CRPs) on nuclear security equipment for detecting nuclear and other radioactive material out of regulatory control and nuclear forensics, and to expand the CRP programme to ensure that research proposals explore all areas of nuclear security in a comprehensive way
- To continue to promote cooperation with other international organizations and initiatives
  and strengthen coordination mechanisms to provide targeted, effective assistance to States
  for building capacity to implement, maintain and sustain nuclear security systems and
  measures to detect and respond to nuclear security events.
- To continue to strengthen the nuclear security framework globally, support nuclear security regimes nationally, and coordinate assistance and support for nuclear security worldwide.
- Encourage international exchange of experience, on a voluntary basis, in the implementation of each State's nuclear security regime, while protecting sensitive information.
- Expand the INSSP programme to ensure coverage of all States that request an INSSP to prioritize and manage cooperation for nuclear security.