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Report by the Director General

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Nuclear Security Plan 2022-2025

Report by the Director General

Summary

- On 14 September 2021, the Board of Governors approved the Nuclear Security Plan 2022-2025.
- As requested by the Board, the Director General is transmitting the Nuclear Security Plan to the General Conference, with the Board's recommendation that the Conference takes note of the Nuclear Security Plan 2022-2025 and calls upon Member States to contribute on a voluntary basis to the Nuclear Security Fund.

Nuclear Security Plan 2022-2025

Report by the Director General

A. Introduction

1. Through General Conference resolutions, Member States have asserted that the responsibility for nuclear security within a State rests entirely with that State and that they are mindful of the responsibilities of every Member State, in accordance with its respective national and international obligations, to maintain at all times effective and comprehensive nuclear security of all nuclear and other radioactive material.

2. The Agency has provided, upon request, assistance to States and supported their efforts to establish and improve national nuclear security regimes since the early 1970s, when it began providing ad hoc training in physical protection. The Agency's first comprehensive plan of action to protect against nuclear terrorism¹ was approved in March 2002 by the Board of Governors, together with the creation of a voluntary funding mechanism, the Nuclear Security Fund, in order to help implement the Plan. Further Nuclear Security Plans were approved by the Board of Governors in 2005², 2009³, 2013⁴, and 2017⁵.

3. Member States have consistently affirmed the central role of the IAEA in strengthening the nuclear security framework globally and in coordinating international activities in the field of nuclear security, while avoiding duplication and overlap.

B. Background

4. The Nuclear Security Plan 2022-2025 is based on Programme 3.5 of the Agency's Programme and Budget 2022-2023⁶, and provides further details regarding the Agency's nuclear security activities for the period 2022-2025 that are proposed to be undertaken using voluntary contributions to the Nuclear Security Fund. Activities under this Plan are in accordance with the Agency's Statute.

¹ GOV/2002/10.

² GOV/2005/50.

³ GOV/2009/54-GC(53)/18.

⁴ GOV/2013/42-GC(57)/19.

⁵ GOV/2017/34/Rev.1-GC(61)/24.

⁶ GC(65)/2

5. The Plan takes into account the priorities of Member States, expressed through the General Conference resolutions and decisions of the Agency Policy Making Organs, as well as priority setting for Nuclear Security Series guidance publications based on recommendations of the Nuclear Security Guidance Committee (NSGC). The International Conference on Nuclear Security: Sustaining and Strengthening Efforts, co-chaired by the Foreign Minister of Romania and the Foreign Vice-Minister of Panama, was convened at Agency headquarters in Vienna on 10-14 February 2020. On 10 February, Ministers adopted a Declaration which was also considered in the consultation process, as appropriate, during the development of this Plan.⁷

6. The Agency will continue to build upon experience in implementing the Nuclear Security Plan for 2018-2021, as well as the activities set out in previous Nuclear Security Plans, such as advisory services, education and training, and the development, upon request, of Integrated Nuclear Security Support Plans (INSSP), taking into account new and changed priorities of Member States and developments from 2018-2021.

7. Activities under this Plan may, where appropriate, assist States' efforts to establish effective and sustainable national nuclear security regimes and, where appropriate, to fulfil their obligations including under the Convention on the Physical Protection of Nuclear Material (CPPNM) and its Amendment as well as the relevant United National Security Council Resolutions (UNSCRs), including UNSCR 1540.

8. The Agency provides support and assistance to States, upon request, in meeting their obligations under international instruments and in support of the encouragement, expressed by Member States, that the relevant recommendations in the Nuclear Security Series be taken into account as appropriate, and be made use of at the States' national discretion, in their efforts to strengthen nuclear security. This may include supporting State's efforts to establish effective and sustainable national nuclear security regimes through assistance with the development of appropriate national legal and regulatory frameworks, provided that the requests are within the scope of the Agency's statutory responsibilities. Nuclear Security Series guidance publications are developed according to the priorities set by Member States through resolutions and decisions of the Agency Policy Making Organs and recommendations of the NSGC.

9. Agency assistance in capacity building and in facilitating information exchange and sharing of information, as appropriate, is provided solely at the request of States, and nothing in the Plan is intended to impose obligations upon States.

10. Nuclear security measures may enhance public confidence, at a national level, in the peaceful use of nuclear technologies and applications. Those technologies and applications contribute to Member States' sustainable development. The General Conference through its resolutions has called upon all Member States to ensure that measures to strengthen nuclear security do not hamper international cooperation, in the field of peaceful nuclear activities, the production, transfer and use of nuclear and other radioactive material, the exchange of nuclear material for peaceful purposes and the promotion of peaceful uses of nuclear energy. Furthermore, as reiterated by the General Conference, nuclear security should not undermine the established priorities of the Agency's Technical Cooperation Programme. The General Conference also has recognized that nuclear security and safety measures have the common aim of protecting human health, society and the environment, while also recognizing the distinctions between the two areas.

11. Bearing in mind the COVID-19 pandemic, the Agency may continue to conduct some technical events in hybrid or virtual format. Acknowledging a preference remains for conducting in person consultancy meetings, technical meetings and training; hybrid or virtual formats should be envisaged

⁷ Available online at: <https://www.iaea.org/sites/default/files/20/02/cn-278-ministerial-declaration.pdf>

when appropriate or when physical meetings may not be feasible – recognizing Member State preferences and their request for equal access to such events. However, e-learning should be promoted as an effective way to deliver training when physical presence is not required, to ensure resilience of the implementation of the Agency's Nuclear Security Programme.

12. The Director General will continue to report on the implementation of the Nuclear Security Plan in accordance with General Conference resolutions, to include highlighting significant accomplishments of the previous year and programmatic goals and priorities for the upcoming year.

C. Programme Elements and Expected Outcomes

13. The objective of the Agency's Nuclear Security Programme is:

- To assist States in establishing, maintaining and sustaining national nuclear security regimes for nuclear and other radioactive materials, including during transport, and associated facilities used for peaceful purposes;
- To contribute to global efforts to achieve effective nuclear security, including by establishing comprehensive nuclear security guidance and, upon request, promoting its use through peer reviews, advisory services and capacity building, including education and training;
- To promote adherence to relevant international legal instruments and commitment to the Code of Conduct on the Safety and Security of Radioactive Sources and its supplementary guidance to enhance nuclear security globally; and
- To play the central role of facilitating and enhancing international cooperation and increasing visibility and awareness through communication on nuclear security, in response to resolutions and decisions of the General Conference and Board of Governors, and considering Ministerial Declarations.

14. Proposed projects to be undertaken from 2022-2025 are summarized in the following sub-sections, including tasks under each project and the main planned outputs of the projects in this time period, with a focus on tasks to be undertaken using voluntary funding. The execution of these tasks will be subject to the availability of resources and will be modified to respond to changes in Member State priorities as expressed through resolutions and decisions of the Agency's Policy Making Organs.

15. The structure of these sub-sections follows the structure of Programme 3.5 of the Agency's Programme and Budget for 2022-2023. Sub-sections reflect the sub-programmes and projects described in the Programme and Budget, and the tasks described under each project are those set out in the Agency's Programme and Budget for 2022-2023. However, the Secretariat anticipates that some tasks set out under this Plan will be implemented during the period 2024-2025, and will thus be further considered by Member States in the Programme and Budget for 2024-2025.

16. Each project includes a task focusing on overall management, typically funded through the regular budget, covering coordination, oversight and management of the implementation of the project, including supplies, resource allocation and general expenditures. Where necessary, projects include several sub-tasks specific to the implementation of the Nuclear Security Plan 2022-2025, which are expressed as sub-bullets, and will be carried out in accordance with the priorities of Member States.

Text provided as sub-bullets under the tasks explains the activities intended to be implemented in greater detail than is available in the Programme and Budget document GC(65)/2.

17. The Agency's Nuclear Security Programme will be coordinated and implemented following a results-based management approach. The objectives, outcomes and performance indicators for the Nuclear Security Plan 2022-2025, as well as for each of the sub-programmes described in this section, are those set out in Programme 3.5 of the Programme and Budget for the relevant biennium (2022-2023 or 2024-2025). The objectives, outcomes and performance indicators for the period 2024-2025 will be further elaborated in consultation with Member States, within the process of developing the Programme and Budget for 2024-2025.

C.1. Priority and cross-cutting issues

18. As reaffirmed by Member States, the Agency plays a central role in nuclear security globally through:

- Promoting universalization of relevant international legal instruments and assisting Member States, upon request, in adherence to, and implementation of, relevant international legal instruments;
- Developing comprehensive nuclear security guidance publications and, on request, providing assistance to Member States in order to facilitate their implementation;
- Facilitating international cooperation in supporting the efforts of States to fulfil their responsibilities to ensure the security of civilian nuclear and other radioactive material; and
- Strengthening the nuclear security framework globally and coordinating international activities in the field of nuclear security, including cooperation with other international organizations and initiatives involved in the field of nuclear security, as appropriate, while avoiding duplication and overlap.

19. Member States, through resolutions of the General Conference and while also considering the ICONS 2020 Ministerial Declaration, have identified a number of topical areas as priorities for the Agency's work. Member States have recognised physical protection as a key element of nuclear security and the Agency intends to further strengthen its activities in this area. It also intends to provide further assistance, upon request, in areas of prevention, detection, and response, as well as insider threat mitigation and nuclear security culture. The Agency will undertake efforts to assist States, upon request, to strengthen protection of sensitive information and computer-based systems, recognizing the threats to nuclear security and from cyber-attacks at nuclear related facilities, as well as their associated activities including the use, storage and transport of nuclear and other radioactive material.

20. The Agency intends to: continue its efforts to promote further adherence to the CPPNM and its Amendment with the aim of its universalization; assist Member States, upon request, in their development of national legislative and regulatory frameworks; promote and facilitate technical exchanges of knowledge, experiences and good practices on the use and security of radioactive sources throughout their life-cycle; and to strengthen nuclear security culture and provide education and training opportunities in nuclear security, including by using national Centres of Excellence and Nuclear Security Training and Support Centres, also including those with regional roles .

21. A number of Agency activities in nuclear security addressed in this plan cut across projects and sub-programmes. Some of these elements are repeated in this section under multiple sub-programmes or projects to reflect their cross-cutting nature, and in other cases, they are addressed only under one sub-programme or project.

22. The importance of physical protection as a key element of nuclear security has been recognised through the implementation of activities on a cross cutting basis such as promotion of the universalization and assistance in implementation of the CPPNM and its Amendment, provision of equipment, the development of guidance documents, international and regional training courses on physical protection related topics, and e-learning modules.

23. Another example of a cross-cutting activity is computer security. While the Agency's activities in computer security are included under Section C.2 (Information Management) due to the structure currently in place for the nuclear security programme, computer security is also an important element of nuclear security for nuclear and other radioactive materials and associated facilities (Section C.3) and is important to detecting criminal or intentional unauthorized acts involving nuclear and other radioactive material out of regulatory control and responding to nuclear security events (Section C.4).

24. A third example of a cross-cutting activity emphasized by Member States is support provided by the Agency to States, upon request, in developing and strengthening their legal and regulatory frameworks related to nuclear security. This support is described under multiple sub-programmes and is repeated under each project in which training and assistance in this area is provided. In addition, Section B.5 highlights work done by the Agency to promote and facilitate the exchange of information on the implementation of the CPPNM and its Amendment, as well as of the nuclear security provisions of other binding and non-binding international instruments.

25. Integrated Nuclear Security Support Plans (INSSPs) and Agency advisory services, such as International Physical Protection Advisory Service (IPPAS) and International Nuclear Security Advisory Service (INSServ) missions, are by nature cross-cutting, as they advise on many linked aspects of nuclear security in a State and contain modules addressing various topic areas. While cross-cutting, they are addressed in this Plan under the most relevant sub-programmes and projects.

26. The Agency will continue to develop and establish the Nuclear Security Training and Demonstration Centre at Seibersdorf, ensuring engagement with Members States and with due considerations for the planning of resources for the long-term sustainability of the Centre. The Centre will act as a specialized training and demonstration facility for nuclear security, to complement the activities of the International Network for Nuclear Security Training and Support Centres (NSSC Network), where relevant, while avoiding duplication and overlap. Once the Centre is in operation, the Agency will conduct periodic holistic self-assessments of the Centre's activities to identify needed improvements, including through technical exchanges with Member States in the NSSC Network. The Agency will document, including through updates to the implementation plan, how the results of the assessments, including self-assessment, or technical exchange can be used to drive improvement in Centre performance.

27. Member States, including through considering the ICONS 2020 Ministerial Declaration, have noted concern about existing and emerging nuclear security threats and addressing such threats. The Agency will undertake efforts to assist States, at their request, to address current and evolving challenges to nuclear security, noting that implementing risk management activities may contribute to improving nuclear security. The Agency will continue to keep abreast of scientific, technological, and engineering innovations, such as through dialogues with Member States and, as appropriate, with nuclear industry, with a view to confronting current and evolving challenges and risks to nuclear security and as new developments can present opportunities to enhance nuclear security. In this context, the Agency will share information about this with Member States, as appropriate, and provide support, upon request, to address such risks to nuclear security. The Agency will also continue to provide targeted assistance to States, upon request, in the form of various capacity building activities, including physical protection

upgrades and provision of equipment as appropriate, as well as technical assistance and risk management activities.

28. The Agency, within its mandate, will inform Member States of nuclear and radiation technology options which are technically feasible, economically viable and sustainable, while respecting Member States' choices in nuclear technologies. Moreover, Member States have recognized that highly enriched uranium (HEU) and separated plutonium in any application requires special precautions to ensure they are appropriately secured and accounted for by the relevant State, as well as recognizing the importance of minimizing HEU in civilian stocks and using low enriched uranium (LEU), when technically and economically feasible. In this regard, the Agency will continue its efforts to advise and assist Member States, upon request.

29. In response to Member States' requests, the Secretariat, while recognizing the distinction between nuclear safety and nuclear security, will continue to facilitate, in close cooperation with Member States, upon request, a coordination process to address the interface between nuclear safety and security in a timely manner, as appropriate, and to develop safety and security publications, to ensure consistency and foster culture accordingly. It will also continue its efforts to coordinate nuclear security guidance and advisory services to address the interface between nuclear safety and security, including joint publications, as appropriate.

30. In response to Member States' request to strengthen its work to promote workforce diversity, including gender equality and geographical diversity, in the context of its nuclear security activities, the Agency will continue to enhance its efforts to increase the representation of women, while securing employees of the highest standards of efficiency, technical competence, and integrity, and to ensure equitable geographic distribution in the nuclear security field through its capacity building efforts, recognizing the importance of ensuring equal access to education and training. As part of its effort in this regard, the Agency will also utilize its fellowships and training programmes, such as the Marie Skłodowska-Curie Fellowship Programme, which was launched in 2020 to provide scholarships for women beginning their careers in nuclear science and technology, including in the field of nuclear security. The Agency will also continue to be a global voice, such as with the Women in Nuclear Security Initiative, to promote and strengthen the involvement of women in nuclear security worldwide, and to enhance the attractiveness of nuclear security jobs and careers to women, especially for the next generation.

31. To continue strengthening communication with the public and Member States about its nuclear security activities and how these activities assist Member States to improve nuclear security globally, the Agency will continue its efforts in the area of external communications, as well as information exchange and sharing of information, as appropriate, with Member States, on nuclear security with due respect to confidentiality.

C.2. Information Management

C.2.1. Background

32. The Agency's Nuclear Security Programme includes projects focused on the management, exchange and sharing of information, as appropriate and with due regard to confidentiality, of nuclear security information voluntarily provided by States. In addition, the proper protection of nuclear security information in States and within the Secretariat is enhanced through the provision of guidance and training in information security and computer security to States, upon request. This includes the Agency's work to raise awareness of the threat of cyber-attacks, and their potential impact on nuclear

and other radioactive material and associated facilities, to help enhance States' technical capabilities, and to develop guidance and provide training in computer security.

C.2.2. Projects and main planned outputs

33. Agency work in this sub-programme is carried out under three projects: assessing nuclear security needs and priorities; information sharing on incidents and trafficking; and information and computer security and information technology services.

Assessing nuclear security needs and priorities

34. The Agency assists individual States, that so request, to identify and address national nuclear security needs, notably through the development and implementation of INSSPs and the development of self-assessment tools. Tasks under this project for the 2022-2025 time period include the following:

- Overall management and operations to support the identification of nuclear security needs in States concerned, including:
 - Continuing to develop and promote self-assessment methodologies and approaches that are based on IAEA Nuclear Security Series documents and can be used by States on a voluntary basis to ensure effective and sustainable national nuclear security infrastructure;
 - Assisting States, upon request, in the development of INSSPs and in the development of implementation strategies of their INSSPs in close consultation with the concerned States; and
 - Assisting States, upon request, in the conduct of education and training activities, peer reviews and other nuclear security activities.

35. In the course of implementing the Nuclear Security Plan, in response to requests from Member States, the project will expand to encompass:

- Further development, in close consultation with Member States, and implementation of a voluntary mechanism to match States' requests for assistance with other States' offers of assistance, highlighting, in cooperation with the recipient State, the most urgent needs for assistance, with due regard to the confidentiality of information relevant to nuclear security.

Efforts will be made to implement capacity building activities and projects in a sequenced manner according to identified needs, including on a regional basis when appropriate and in coordination with other Agency programmes.

36. Main planned outputs in this area for the period 2022-2025 include:

- Development and implementation of INSSPs, where appropriate;
- Hosting and management of voluntary self-assessment mechanisms or tools for States' use; and
- Maintain and facilitate voluntary information exchange mechanisms to match States' requests for assistance with other Member States' offers of assistance.

Information sharing and exchange mechanisms

37. Information sharing and exchange mechanisms managed by the Agency could provide valuable services to States. While the use of these services is voluntary in nature, they may facilitate information

exchange and the building of confidence. Tasks under this project for the 2022-2025 time period include the following:

- Overall management and support of activities relevant to nuclear security information sharing and exchange mechanisms, including:
 - Promoting the use of information sharing mechanisms managed by the Agency with the consent of States, such as:
 - Information provided in accordance with Parties' obligations under the CPPNM and its Amendment;
 - Information provided through voluntary commitments such as the Incident and Trafficking Database (ITDB) and the NSSC Network; and
 - Information provided as part of the IPPAS good practices database.
 - Further facilitating, including through Designated Points of Contact, the exchange of information also through secured electronic access to information contained in the ITDB; and
 - Outreach to Member States who do not participate in the ITDB to encourage their participation.

38. Main planned outputs in this area for the period 2022-2025 include:

- Information exchange and sharing, as appropriate and with due regard to confidentiality: Promoting the use of mechanisms managed by the Agency for the sharing of nuclear security related information, with the consent of reporting States;
- Dissemination of information provided by Parties, in accordance with the CPPNM and its Amendment;
- Technical meetings: Convening of technical meetings of the ITDB points of contact;
- Preparing and disseminating the analysis reports of the ITDB;
- Information exchange meetings;
- Training of appropriate State professionals to improve the effectiveness of information sharing activities implemented through the ITDB, based on lessons learned from previous trainings; and
- Outreach activities to support Member States' encouragement to all States to join the ITDB in support of their national efforts to prevent, detect and respond to radioactive and nuclear materials that may have fallen out of regulatory control.

Information and computer security, and information technology services

39. Information and computer security continues to be important for States in improving their nuclear security capabilities. The Agency's work in this area includes providing States, upon request, with guidance and training, the initiation and management of coordinated research projects on information and computer security and support for needed information technology services to facilitate Agency projects. Tasks under this project for the 2022-2025 time period include the following:

- Overall management and operations to support States, upon request, to implement security for information and computer systems for nuclear security;

- Development of guidance publications within the IAEA Nuclear Security Series in the area of computer security for nuclear security;
 - Activities undertaken upon request to support the implementation of the Nuclear Security Plan 2022-2025, including:
 - Maintenance of a comprehensive and secure information management system to provide the Secretariat with accurate, relevant information to support its activities for assisting States;
 - Assisting States, upon request, in the area of computer security by providing training courses, webinars and exercises, and hosting further expert meetings specific to computer security for nuclear security; and
 - Improving international cooperation by bringing together experts and policy-makers to promote the exchange and sharing of information and experiences in computer security for nuclear security;
 - Research to address computer security for nuclear security topics, including through coordinated research projects; and
 - Support for the development, maintenance and deployment of nuclear security information technology tools used for implementing and tracking assistance to States, producing financial reports to donors and providing web-based portals for nuclear security information exchange.
40. Main planned outputs in this area for the period 2022-2025 include:
- Information and computer security publications: Published information and computer security guidance publications in the IAEA Nuclear Security Series and other nuclear security publications;
 - Expert meetings: Hosting of expert meetings specific to the computer security for nuclear security, such as consultancies and technical meetings as necessary to stay abreast of developments in computer security for nuclear security and to develop further guidance;
 - Training courses, webinars and workshops: Completed training courses, webinars and workshops provided to States on an inter-regional, regional or national basis, upon request;
 - Technical assistance for States: Technical assistance provided to States in computer security for nuclear security, such as training courses and expert meetings, upon request; and
 - Research coordination meetings.

C.3. Nuclear Security of Materials and Facilities

C.3.1. Background

41. Where appropriate and upon request, the Agency provides assistance and advice to States to help them establish institutional infrastructure and to enhance, maintain and sustain national competences, capacities and capabilities related to the nuclear security of materials and associated facilities.

C.3.2. Projects and main planned outputs

42. Agency work in this sub-programme is carried out under four projects, corresponding to four areas of expertise relevant to nuclear security of nuclear and other radioactive materials and associated facilities and activities: integrated nuclear security approaches for the whole nuclear fuel cycle; enhancing security of nuclear material and associated facilities; enhancing security of radioactive material and associated facilities; and nuclear security in transportation of nuclear and radioactive material.

Integrated nuclear security approaches

43. The Agency develops guidance and provides, upon request, training and assistance to States regarding the integrated nuclear security approaches for nuclear material and facilities, including for waste storage and decommissioned reactors, and radioactive material and facilities. The Agency also provides, upon request, advisory services in this area and initiates and manages coordinated research projects to address nuclear security issues identified by the Member States and help enhance States' technical capabilities. Tasks under this project for the 2022-2025 time period include the following:

- Overall management and operations in support of integrated nuclear security approaches implemented for the whole nuclear fuel cycle and radioactive material and associated facilities;
- Advising States on taking further preventive and protective measures against insider threats to enhance nuclear security, including through the use of nuclear material accounting and control for nuclear security purposes at facilities, and trainings;
- Development and revision of guidance publications within the IAEA Nuclear Security Series, including in the area of nuclear security culture, threat assessment and contingency response, based on top-down approach ensuring clear hierarchy and alignment of the publications;
- Activities undertaken upon request to support the implementation of the Nuclear Security Plan 2022-2025, including:
 - Continuing work to assist States' efforts to:
 - Ensure the security of nuclear material under their control and associated facilities, including through training, and
 - Establish effective and sustainable national nuclear security regimes for security of nuclear materials and associated facilities;
 - Promoting international exchanges and sharing of experience, knowledge and good practices as regards ways to develop, foster and maintain a robust nuclear security culture compatible with States' nuclear security regimes, including by organizing international workshops on nuclear security culture;
 - Providing increased assistance to States, upon request, on the development and strengthening of nuclear security culture, including through publishing guidance, providing training and related self-assessment and training materials and tools;
 - Increasing awareness about, and carrying out IPPAS missions, upon request, focusing on nuclear material and associated facilities, using experts made available to the Agency by Member States;

- Analyzing data and feedback from States to increase effectiveness of IPPAS missions, including good practices and lessons learned; and
 - Coordinated research projects based on inputs from Member States.
44. Main planned outputs in this area for the period 2022-2025 include:
- Comprehensive support including guidance, procedures and methodologies, including:
 - Projects arising from INSSPs;
 - Projects to assist States without INSSPs upon request;
 - Projects to assist States on the development and strengthening of nuclear security culture, threat assessment and contingency response, including through providing guidance, training, and self-assessment and training materials and tools;
 - Production and update of Nuclear Security Series guidance publications on integrated nuclear security approaches;
 - Technical discussion to promote dialogue, and the exchange and sharing of good practices among States and to inform the Secretariat with regards to programmatic needs (e.g. international seminar on sharing experience from conduct of IPPAS missions);
 - Provision of advisory services: Promoting and conducting IPPAS missions, upon request; and
 - Research coordination meetings.

Enhancing security of nuclear material and associated facilities

45. The Agency develops guidance and provides training and assistance to States, upon request, for enhancing nuclear materials security using, inter alia, accounting and control. The Agency also initiates and manages coordinated research projects to address nuclear security issues identified by Member States and help enhance States' technical capabilities. Tasks under this project for the 2022-2025 time period include the following:

- Overall management and operations in support of nuclear security activities implemented for enhancing nuclear security of materials, including by using accounting and control;
- Development of guidance publications within the IAEA Nuclear Security Series in the area of security of nuclear material and associated facilities, including physical protection and nuclear material accounting and control for nuclear security purposes at facilities;
- Activities undertaken upon request to support the implementation of the Nuclear Security Plan 2022-2025, including:
 - Assisting States to develop appropriate methodologies for accounting and control for nuclear security;
 - Assisting States in enhancing their national legal and regulatory infrastructure for and security of nuclear material and associated facilities through provision of comprehensive guidance and technical assistance;
 - Continuing work to assist States' efforts to establish effective and sustainable national nuclear security regimes that support improving physical protection of

nuclear material and associated facilities and enhancing accounting and control for nuclear security purposes at facilities; and

- Coordinated research projects based on inputs from Member States.

46. Main planned outputs in this area for the period 2022-2025 include:

- Comprehensive support including guidance, procedures and methodologies, including:
 - Production of Nuclear Security Series guidance publications on countering the challenges and risks in the area of security of nuclear material and associated facilities, including enhancing nuclear material accounting and control for nuclear security purposes at facilities;
 - International, regional and national training courses;
 - Physical protection enhancements;
 - Meetings/workshops and consultancy meetings;
 - Expert missions and advisory services, upon request;
 - Technical discussion to promote dialogue, and the exchange and sharing of good practices among States, and to inform the Secretariat with regards to programmatic needs;
 - Projects arising from INSSPs and Member States' requests for assistance through other mechanism; and
 - Research coordination meetings.

Enhancing security of radioactive material and associated facilities

47. The Agency develops guidance and provides training and assistance to States, upon request, for the security of radioactive material and associated facilities, including the end-of-life management of radioactive material. The Agency also provides advisory services in this area and initiates and manages coordinated research projects to address nuclear security issues identified by the Member States and help enhance States' technical capabilities. Tasks under this project include the following:

- Overall management and operations in support of nuclear security activities implemented for the security of radioactive material and associated facilities;
- Development and update of guidance publications within the IAEA Nuclear Security Series in the area of security of radioactive material and associated facilities, based on top-down approach, ensuring clear hierarchy and alignment of the publications;
- Activities undertaken, upon request, to support the implementation of the Nuclear Security Plan 2022-2025, including:
 - Assisting States to develop plans for the life-cycle management of radioactive sources and to meet the provisions of international instruments relevant to the security of radioactive material, such as the Code of Conduct for the Safety and Security of Radioactive Sources and its supplementary guidance;
 - Continuing work to assist States' efforts to:

- Ensure the security of radioactive material and associated facilities, including through the offer of assistance in meeting the provisions of Agency Nuclear Security Fundamentals and Recommendations when radioactive material is supplied by the Agency, and through the provision of such assistance, when requested, such as through training; and
- Establish and/or support effective and sustainable national nuclear security regimes for the security of radioactive material and associated facilities;
- Supporting continued dialogue on the security of radioactive sources and management of disused radioactive sources, and promoting research and development in this field, upon request;
- Continuing to carry out IPPAS missions, upon request, focusing on radioactive material and associated facilities, using experts made available to the Agency by Member States;
- Analyzing data and feedback from States to increase effectiveness of IPPAS missions, including good practices and lessons learned; and
- Coordinated research projects based on inputs from Member States.

48. Main planned outputs in this area for the period 2022-2025 include:

- Physical protection enhancements for radioactive material and associated facilities, upon request;
- Capacity building: Support for capacity building in States, upon request;
- Production of Nuclear Security Series guidance publications on how to develop, enhance, implement and maintain a national nuclear security regime for radioactive material, associated facilities and associated activities;
- Comprehensive support including guidance, procedures and methodologies, including:
 - International, regional and national training courses;
 - Physical protection enhancements;
 - Meetings/workshops and consultancy meetings;
 - Technical discussion to promote dialogue, and the exchange and sharing of good practices among States, and to inform the Secretariat with regards to programmatic needs (e.g., Code of Conduct and Working Group for Radioactive Material Security meetings);
 - Projects arising from INSSPs and Member States' requests for assistance through other mechanisms; and
 - Research coordination meetings.
- International, regional, and national training courses;
- Safe and secure management enhancements for radioactive sources in all stages of their lifecycle, upon request; and

- Provision of advisory services, e.g., carrying out of IPPAS missions, upon request.

Nuclear security in transportation of nuclear and radioactive material

49. The Agency develops guidance and provides training and assistance to States, upon request, for the security of nuclear and other radioactive material during transport. The Agency also initiates and manages coordinated research projects to address nuclear security issues identified by the Member States and help enhance States' technical capabilities. Tasks under this project include the following:

- Overall management and operations in support of nuclear security activities implemented for the security of nuclear and other radioactive material in transport;
- Development and update of guidance publications within the IAEA Nuclear Security Series in the area of the secure transport of nuclear and other radioactive material;
- Activities undertaken upon request to support the implementation of the Nuclear Security Plan 2022-2025, including continuing work to assist States' efforts to:
 - Ensure the security of nuclear and other radioactive material, provided that the requests are within the scope of the Agency's statutory responsibilities, focused on the secure transport of nuclear and other radioactive material, including through trainings and exercises;
 - Establish effective and sustainable national nuclear security regimes for the secure transport of nuclear and other radioactive material; and
- Coordinated research projects based on inputs from Member States.

50. Main planned outputs in this area for the period 2022-2025 include:

- Training and practical assistance, including exercises for security in the transport of nuclear and other radioactive material, upon request by States;
- Assistance with the development of regulatory frameworks for transport security;
- Technical guidance, procedures and methodologies, including the production of IAEA Nuclear Security Series guidance on the secure transport of nuclear and other radioactive material;
- Meetings/workshops and consultancy meetings;
- Expert missions, upon request; and
- Research coordination meetings.

C.4. Nuclear Security of Materials out of Regulatory Control

C.4.1. Background

51. Where appropriate and upon request, the Agency provides assistance to States to establish and sustain their national infrastructure and capabilities for the detection of criminal or intentional unauthorized acts involving nuclear and other radioactive material out of regulatory control, and the response to nuclear security events.

52. The Agency's work in this area also includes advisory services, such as INSServ, which provide opportunities for exchanges of views and good practices as well as advice on nuclear security measures.

C.4.2. Projects and main planned outputs

53. Agency work under this sub-programme is carried out under three projects: institutional response infrastructure for nuclear and other radioactive material out of regulatory control; nuclear security detection architecture; and radiological crime scene management and nuclear forensics science.

Institutional response infrastructure for material out of regulatory control

54. The Agency develops guidance and provides training and assistance, upon request, to help States to establish the national nuclear security infrastructure needed to respond to criminal or intentional unauthorized acts involving nuclear and other radioactive material out of regulatory control. The Agency also provides advisory services in this area. Tasks under this project include the following:

- Overall management and operations in support of activities implemented to assist States in establishing and sustaining effective national infrastructure in responding to nuclear security events, as well as assistance provided to implement nuclear security systems and measures for nuclear security at major public events;
- Development and update of guidance publications within the IAEA Nuclear Security Series for nuclear security response infrastructure, based on top-down approach ensuring clear hierarchy and alignment of the publications; and
- Activities undertaken upon request to support the implementation of the Nuclear Security Plan 2022-2025, including:
 - Continuing work to assist States' efforts to:
 - Ensure the security of nuclear and other radioactive material through addressing the establishment of a national nuclear security response infrastructure related to nuclear and other radioactive material out of regulatory control; and
 - Establish and/or support effective and sustainable national nuclear security regimes for addressing the establishment of a national nuclear security response infrastructure related to nuclear and other radioactive material out of regulatory control;
 - Continuing to carry out INSServ missions, upon request, to provide a general overview of the nuclear security regime in a State or a specific area of interest, using experts made available to the Agency by Member States; and
 - Analyzing data and feedback from States to increase effectiveness of INSServ missions, including good practices and lessons learned.

55. Main planned outputs in this area for the period 2022-2025 include:

- Support for States to establish a national nuclear security response infrastructure related to nuclear and other radioactive material out of regulatory control;
- Assistance in capacity building: Building human and technological capacity to maintain an effective nuclear security response infrastructure for States to discharge their responsibilities related to nuclear and other radioactive material out of regulatory control;
- Assistance to States in support of major public events, upon request;
- Projects arising from INSSPs;

- Provision of advisory services: Carrying out of INSServ missions, upon request; and
- Nuclear Security Series Guidance: Production and update of Nuclear Security Series guidance on establishing and sustaining an effective nuclear security response infrastructure for nuclear and other radioactive material out of regulatory control.

Nuclear security detection architecture

56. The Agency develops guidance and provides training and assistance to States, upon request, to establish and sustain their capabilities to detect criminal or intentional unauthorized acts involving nuclear and other radioactive material out of regulatory control and respond to nuclear security events. The Agency also initiates and manages coordinated research projects in this area to address nuclear security issues identified by Member States and help enhance States' technical capabilities. Tasks under this project include the following:

- Overall management and operations in support of activities implemented to assist States in detecting and responding to criminal or intentional unauthorized acts involving nuclear and other radioactive material out of regulatory control as well as assistance provided for strengthening and advancing the technical capacities in nuclear security detection;
- Development of guidance publications within the IAEA Nuclear Security Series for nuclear security detection and response architecture, based on top-down approach, ensuring clear hierarchy and alignment of the publications;
- Activities undertaken upon request to support the implementation of the Nuclear Security Plan 2022-2025, including
 - Continuing work to assist States' efforts to:
 - Ensure the security of nuclear and other radioactive material through addressing detection of criminal or intentional unauthorized acts involving nuclear and other radioactive material out of regulatory control and response to nuclear security events, including through training;
 - Establish and support effective and sustainable national nuclear security regimes for addressing detection of criminal or intentional unauthorized acts involving nuclear and other radioactive material out of regulatory control and response to nuclear security events; and
- Coordinated research projects based on inputs from Member States.

57. Main planned outputs in this area for the period 2022-2025 include:

- Technical support for States to establish detection and response measures, including:
 - Development of guidance and training to support Member States' exercises to strengthen their national capacities to prepare for and respond to nuclear security events; and
 - Development of guidance and training for building an effective nuclear security detection architecture;
- Assistance in capacity building and installation of radiation detection equipment, while taking into account full equipment lifecycle management consistent with Nuclear Security Series guidance;

- Expert missions and INSServ, upon request;
- Projects arising from INSSPs;
- Nuclear Security Series guidance: Production and update of Nuclear Security Series guidance for nuclear security detection architecture; and
- Research coordination meetings.

Radiological crime scene management and nuclear forensics science

58. The Agency develops guidance and provides training and assistance to States, upon request, on radiological crime scene management and nuclear forensics science. The Agency also initiates and manages coordinated research projects to address nuclear security issues identified by Member States and help enhance States' technical capabilities, while ensuring that sensitive information is adequately protected. Tasks under this project include the following:

- Overall management and operations in support of activities implemented to assist States, upon request, in building their national capacity in managing a radiological crime scene, evidence collection and nuclear forensics examination in supporting law enforcement;
- Development and update of guidance publications within the IAEA Nuclear Security Series for radiological crime scene management and nuclear forensics science, based on top-down approach, ensuring clear hierarchy and alignment of the publications;
- Activities undertaken upon request to support the implementation of the Nuclear Security Plan 2022-2025, including:
 - Continuing work to assist interested States, through facilitating education and training in radiological crime scene management and nuclear forensics science with due regard to the principle of protection of sensitive information;
 - Assisting States, upon request, to establish, where practical, national nuclear material databases or national nuclear forensics libraries;
- Sharing experiences, lesson learned and good practices in radiological crime scene management and nuclear forensics science through technical meetings and workshops; and
- Coordinated research projects based on inputs from Member States.

59. Main planned outputs in this area for the period 2022-2025 include:

- Assistance to States, upon request, to strengthen their capacity for radiological crime scene management and nuclear forensics science;
- Nuclear Security Series guidance: Production and update of IAEA Nuclear Security Series guidance publications on radiological crime scene management and nuclear forensics science;
- Training programme: A training programme on radiological crime scene management and nuclear forensics science;
- Provision of advisory services: Carrying out of INSServ missions, upon request; and
- Research coordination meetings.

C.5. Programme Development and International Cooperation

C.5.1. Background

60. The Agency's Nuclear Security Programme supports the enhancement of international cooperation in nuclear security and of nuclear security globally, assists in strengthening national nuclear security regimes and provides coordinated education and training programmes. The Agency also manages the Nuclear Security Fund, described in Section D of this Plan.

61. The activities of the Agency to enhance international cooperation in nuclear security are not limited to activities such as the continuing organization of information exchange meetings and sharing of information, as appropriate, but also extend to the strengthening of coordination among States and other organizations upon request by organizing a range of events and conferences. The Agency also provides representatives to meetings and conferences on nuclear security organized by other initiatives.

62. The Agency promotes universalisation of relevant legally binding instruments and commitment to non-binding instruments under Agency auspices, notably including activities undertaken in support of the CPPNM and its Amendment, as well as through the development of comprehensive guidance in the IAEA Nuclear Security Series according to the priorities set by Member States through the resolutions of General Conference, decisions of the Agency Policy Making Organs and priorities as recommended by the NSGC, in order to support the encouragement expressed by Member States that they take into account, as appropriate, the relevant recommendations in the Nuclear Security Series, and make use of them at their national discretion in their efforts to strengthen nuclear security.

63. The Agency plays an important role in the provision of coordinated education and training programmes that strengthen capabilities in States to address and sustain nuclear security. This activity is not limited to the preparation of training courses, but also involves coordination through the maintenance of networks such as the International Nuclear Security Education Network (INSEN) and the NSSC Network and the Nuclear Security Information Portal.

C.5.2. Projects and main planned outputs

64. Agency work under this sub-programme is carried out under three projects: international cooperation on nuclear security networks and partnerships; education and training programmes for human resource development; and coordinating nuclear security guidance and advice services.

International cooperation on nuclear security networks and partnerships

65. The Agency's work to facilitate international coordination on nuclear security between States and relevant organizations is not limited to reducing duplication of efforts, but also includes facilitating and promoting information exchange and sharing of information, as appropriate, on nuclear security with due regard to confidentiality, encouraging conduct of regional exercises, where appropriate, and strengthening the international legal framework. Tasks under this project include the following:

- Overall management and operations in support of international cooperation, information exchange and sharing and promotion of the international nuclear security framework;
- Activities undertaken upon request to support the implementation of the Nuclear Security Plan 2022-2025, including:
 - Convening nuclear security conferences, working groups, and other information and technical exchanges, including organizing an International Conference on Nuclear Security in 2024;

- Playing a central and coordinating role in nuclear security activities among international organizations and initiatives, taking into account their respective mandates and memberships, and working jointly, as appropriate, with relevant international and regional organizations and institutions, including through regular information exchange meetings and the coordination of cooperation and complementary activities between NSSCs;
- Attention to any emerging nuclear security issues identified by Member States and identification of possible national responses through coordination and information exchange and sharing of information, as appropriate and with due regard to confidentiality;
- Continuing efforts to promote further adherence to the CPPNM and its Amendment, as well as assisting Parties with the aim of its universalization, through assistance in the development of national legislative and regulatory frameworks and promoting and facilitating information exchange on its implementation, including through organizing a review conference in 2022 in accordance with Article 16, paragraph 1 of the CPPNM as amended, and CPPNM Points of Contact meetings;
- In consultation with Member States, considering ways of further promoting and facilitating the exchange and sharing of information, as appropriate, on a voluntary basis, of information on the implementation of nuclear security provisions of international instruments relevant to nuclear security; and
- The organization of coordination meetings with Member States and/or donors.

66. Main planned outputs in this area for the period 2022-2025 include:

- Practical arrangements, contribution agreements and reports to the Agency Policy Making Organs, including:
 - Regular information exchange meetings; and
 - CPPNM Points of Contact meetings.
- Partnership agreements and collaboration centres;
- Meetings and workshops related to the CPPNM and its Amendment in the context of universalization;
- A Conference of the Parties to the Amendment to the CPPNM, to review the implementation of the Convention as amended and its adequacy as concerns the preamble, the whole of the operative part and the annexes, in the light of the then prevailing situation; and
- An International Conference on Nuclear Security.

Education and training programmes for human resource development

67. The Agency develops education and training programmes for human resource development and coordinates the development and maintenance of a suite of training courses based on Agency nuclear security guidance. The Agency recognizes that education and training programs are key elements to increase the representation of women in the nuclear security field. This principle is kept in mind when designing and promoting human resources development activities. Tasks under this project include the following:

- Overall management and operations in support of education and training;
- Development of guidance publications within the IAEA Nuclear Security Series for education and training;
- Activities undertaken upon request to support the implementation of the Nuclear Security Plan 2022-2025, including:
 - Development of a suite of training courses, based on IAEA Nuclear Security Series guidance, and making these training courses available for delivery by NSSCs;
 - Continue training and train-the trainers programmes taking account of the IAEA Nuclear Security Series and adapting the courses, as appropriate, within the Agency's mandate, to meet the needs of Member States;
 - Promoting the NSSC Network to support international adoption of the Agency's human resource development efforts following the systematic approach to training process and holding Agency courses, drills and exercises at NSSCs where possible; and
 - Assisting States in developing NSSCs, including to facilitate regional and international cooperation in human resource development, technical support and scientific support for nuclear security.

68. Main planned outputs in this area for the period 2022-2025 include:

- Modular training programmes covering all aspects of nuclear security following a systematic approach to training and reflecting Agency nuclear security publications, including e-learning and the development of enhanced training tools;
- Textbooks and course materials on nuclear security, including for a master's degree in accordance with the revised IAEA Nuclear Security Series No 12. The material will be made freely available, through the NUSEC portal, to academic institutions who are members of the INSEN network for them to use either as part of an existing course or for new courses; and
- Materials, resources and tools for supporting human resource development in nuclear security by Member States, including through INSEN and NSSC networks.

Coordinating nuclear security guidance and advisory services

69. While the production of international consensus guidance in the IAEA Nuclear Security Series is covered under other sub-programmes, the Agency also coordinates the development of the Series according to the priorities set by Member States through the resolutions of the General Conference and decisions of the Agency Policy Making Organs as well as priority-setting by the NSGC. In addition, the Agency supports work to consider future directions for Agency guidance and assistance in nuclear security, in response to requests from Member States, with a particular focus on future scientific and technical innovations that may result in future guidance or coordinated research projects. Tasks under this project include the following:

- Overall management and operations in support of coordinating nuclear security guidance and advisory services;
- Support of the NSGC and the Director General's Advisory Group on Nuclear Security (AdSec), including:

- Further developing and updating the IAEA Nuclear Security Series Guidance, based on a top-down approach, according to the priorities set by Member States through the resolutions of the General Conference and decisions of the Agency Policy Making Organs and priorities as recommended by the NSGC; and
 - Facilitating, while recognizing the distinction between nuclear safety and nuclear security and in close cooperation with Member States, a coordination process to address their interfaces and developing safety and security publications and fostering culture accordingly, including finalization of the relevant joint International Nuclear Safety Group (INSAG) - AdSec publication and identification of areas for further improvement based on the finalised publication.
 - Activities undertaken upon request to support the implementation of the Nuclear Security Plan 2022-2025, including:
 - Supporting efforts of Member States to take into account, as appropriate, the relevant recommendations in the Nuclear Security Series; and
 - Undertaking further efforts to enable representatives of all Member States to participate in the work of the NSGC.
70. Main planned outputs in this area for the period 2022-2025 include:
- Nuclear security guidance publications approved by Member States;
 - Expert advice to the Director General on the Agency's Nuclear Security Programme and relevant issues;
 - NSGC meetings; and
 - AdSec meetings

D. Programme Management

D.1. Programme Management and Resources

71. The Secretariat will implement the actions called for in this Plan in a prioritized manner within available resources.

72. Resource requirements for 2022 and 2023 are set out in document GC(65)/2, the Agency's Programme and Budget for 2022-2023. The regular budget primarily funds staff costs to support the implementation of those activities designed to benefit the greatest number of Member States. As assistance is provided at the request of States, the actual resources required for implementation of the Plan over the four years will depend on the number and complexity of requests received. The Secretariat will provide further information to Policy Making Organs in the course of the implementation of the Plan for their consideration, through the annual Nuclear Security Report and the briefing on the Report.

73. Member States have emphasised the need to continue providing appropriate technical, human and financial resources, including through the Nuclear Security Fund, for the Agency to implement its nuclear security activities and to enable the Agency to provide, upon request, the support needed by Member States.

74. The Agency will continue to rely on voluntary contributions to the Nuclear Security Fund to implement the majority of programme activities under the Plan.

75. Due note is taken of different views and concerns expressed by Member States on resourcing for the implementation of activities set out in this Plan, such as on the importance of good programme management and reliable resources through the Nuclear Security Fund; and, as appropriate, through the Regular Budget which primarily funds staff costs. The Secretariat will continue to strengthen its results-based management and internal coordination for its nuclear security programme, as appropriate. The results-based approach will be applied in the development, implementation and reporting of nuclear security activities in accordance with the Agency's established practice.



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