



16th Annual Meeting of the Arab Network of Nuclear Regulators (ANNuR)

22 – 24 April 2025,
Hammamet, TUNISIA

(Hybrid Format Meeting)

Organized by the Arab Atomic Energy Agency (AAEA)
In cooperation with the International Atomic Energy Agency (IAEA)



1. BACKGROUND:

The 16th Annual Meeting of the Arab Network of Nuclear Regulators (ANNuR) is part of a series of annual meetings conducted every year to provide a platform for strengthening the regulatory and legislative frameworks for nuclear and radiation activities in Arab Countries.

The Arab Atomic Energy Agency (AAEA) and International Atomic Energy Agency (IAEA) recognize the importance of the existence of an independent, effective, and well-equipped regulatory body in order to guarantee a high level of safety and security of all nuclear and radioactive facilities and activities under their national responsibility. They approved the establishment of the '*Arab Network for Nuclear Regulators ANNuR*' in January 2010, and confirmed that its main objective is the exchange of experiences, lessons learned, and good practices between regulators in Arab countries.

Since its inception, ANNuR organized 15 previous annual meetings, all in Tunisia except for the 15th meeting, which was held at the IAEA's headquarters, in addition to 7 side meetings during the IAEA General Conference in Vienna – Austria.

This meeting is a follow-up of the past meetings, will address the importance and urgency of capacity building at institutional, organizational and technical levels, and it is intended to strengthen relations among the Arab Nuclear Regulators. This meeting will identify concrete actions reflecting current and future needs that will assist States to establish and/or improve their regulatory infrastructure through effective and efficient capacity building, including education and training.

For several years, ANNuR became an integral part of the Global Nuclear Safety and Security Framework (GNSSF), linking and promoting international legal instruments, the use of the IAEA safety standards, and security guidance among the Arab Countries. ANNuR, like other regional networks, fosters enhancement, strengthening and harmonization of the radiation protection, nuclear safety and security regulatory infrastructure and framework among its members.

ANNuR has proven to be an effective, efficient, internationally recognized forum for the exchange of regulatory experiences and practices among the nuclear regulatory bodies in Arab countries. The IAEA and the relevant regional and international safety organizations continue supported and maintained ANNuR and considered this network as a major part of the Global Nuclear Safety and Security Network (GNSSN).

2. MEETING OBJECTIVES:

The overall objective of this meeting is to evaluate the activities of ANNuR and to discuss ways to develop its performance and cooperation with the relevant international and regional organizations.

2.1. Update of legislative and regulatory infrastructure information for each Member State (MS).

- 2.2. Follow up and review the progress of ANNuR and the Thematic Working Groups TWGs and discuss the active work plan for 2025 – 2026 cycles.
- 2.3. Promote effective coordination and cooperation between ANNuR, IAEA, and relevant regional and international organizations, and propose new joint activities and projects.
- 2.4. Update and discussion on ongoing or in-progress projects, including;
 - 2.4.1. INT9185 Arab Network for Environmental Radiation Monitoring and Early Warning;
 - 2.4.2. Arab Project on Radiation Protection Officers and Qualified Experts;
 - 2.4.3. Nuclear Security Project;
 - 2.4.4. INT9188 Strengthening and Harmonizing Regional Arab Cooperation and Coordination in Emergency Preparedness and Response (EPR)
- 2.5. Review the objectives of ANNuR TWGs 1, 6 and 8.

3. OPENING SESSION:

3.1. Welcome by Dr. Salem HAMDI, the Director General of the AAEA:

Dr. Salem HAMDI, opened the 16th meeting of the ANNuR using virtual video channel, by thanking the national delegations of the regulatory bodies in the Arab MSs for their efforts in enhancing safety and security principles in nuclear and radiation applications, and also thanked the IAEA, US-NRC, US-DOE, KINS, STUK, and the other international organizations for their continuous support to the Arab Countries in order to develop their regulatory framework and enhance the capabilities in peaceful use of radioactive materials and atomic energy. He further appreciated the continuous support of the Tunisian authorities for hosting ANNuR activities.

In his opening speech, Dr. HAMDI also introduced ANNuR establishment in 2010, its commitments for harmonizing of the regulatory infrastructure in Arab Countries and its international role as one part of the GNSSN to provide a platform for the Arab MSs to exchange regulatory knowledge and experiences between Arab regulators and among the international partners. Dr. HAMDI highlighted the significant role of the ANNuR in enhancing the regulatory framework of the Arab countries. In conclusion, Dr. HAMDI emphasized the need for continuous cooperation between ANNuR members to expand its work and to achieve objectives within the TWG's work plan and he wished all success in this meeting.

3.2. Welcome by Dr. Sabah AL-HUSSAINI, ANNuR Chairman and the Vice Chairman of the Iraqi National Nuclear, Radiological, Chemical and Biological Regulatory Commission (I-NRC):

Dr. Sabah AL-HUSSAINI, Chair of the meeting, opened his speech by mentioning that the ANNuR meeting is a unique opportunity for regulators from Arab Countries to share their experiences and discuss ways to meet current and future regulatory

challenges. He also pointed out the achievement of implementing ANNuR action plans and the considerable quantitative and qualitative improvements in the Thematic Working Groups (TWGs) in 2024. Dr. AL-HUSSAINI reemphasized that Arab Countries at ANNuR should work towards the development of concrete actions and outcomes to address the important issues and challenges in the radiation and nuclear safety and security.

He expressed his sincere gratitude to Dr. Daw MOSBAH, the previous coordinator of ANNuR, Mr. Lingquan GUO, the head of the Networks Management and Partnership Section at the IAEA, and Ms. Insuk JANG, the previous PMO of ANNuR, for their invaluable contributions and tremendous support and hard efforts to achieve the objectives of ANNuR, and welcomed the joining of Ms. Seungyeon SON, the New PMO of ANNuR, and Dr. Firas Mohammed RADHI, ANNuR coordinator, and head of the nuclear energy and nuclear safety and security departments at the AAEA and wishing them all the success in their work. He also recalled the sadness that befell ANNuR members for the loss of Dr. Adel RIAHI head of the TWG1.

At the end of his speech, Dr. AL- HUSSAINI thanked the IAEA, US-NRC, US-DoE, EC, KINS, and STUK for their great and continuous support for ANNuR. Then he thanked the Tunisian and Egyptian Governments and Authorities for hosting ANNuR's events, and thanked Arab Country representatives and TWG coordinators for their valuable efforts in developing the regional action plans.

3.3. *Welcome by Ms. Seungyeon SON, Safety Expert, at the Networks Management and Partnership Section, Office of Safety and Security Coordination, Department of Nuclear Safety and Security, IAEA:*

Ms. Seungyeon SON ANNuR's new PMO at the IAEA Networks Management and Partnership Section, Office of Safety and Security Coordination, started her opening speech by thanking the representatives of the Arab regulatory bodies for their efforts in strengthening the regulatory work and developing national infrastructure to enhance nuclear safety and security. She emphasized the support of the IAEA for the ANNuR Network as part of the GNSSN. She also pointed out the IAEA's satisfaction and encouragement to ANNuR countries to continue working on developing regulatory systems and applying IAEA safety standards. Ms. SON thanked the international organizations representatives for their continuous and sustainable collaboration with the agency to achieve the highest safety standards.

3.4. *Introduction of Participants:*

At the end of the opening session, each one of the participants introduces themselves, their current position, and their scientific background, **Appendix (1)** represents the personal and contact information of the participants in the 16th meeting of ANNuR.

3.5. Meeting Agenda:

After the adoption of the meeting agenda by Dr. Sabah AL-HUSSAINI ANNuR Chairman and the participants, (The meeting agenda is presented in **Appendix (2)**), the first-day activities consisted of the following presentations:

4. EFFECTIVE COORDINATION AND COLLABORATION WITH IAEA AND RELEVANT INTERNATIONAL ORGANIZATIONS:

4.1. ANNuR Overviews and Status by Dr. Firas RADHI ANNuR Coordinator:

Dr. Firas RADHI provided a short presentation, starting with the importance of establishing the regulatory authorities to regulate the peaceful uses of radiation sources and nuclear energy to achieve the main goal of protecting people and the environment, which relies on the existence of a robust regulatory infrastructure that oversees these activities. Dr. RADHI provided an overview of ANNuR establishment and the Arab MSs. He also provided an overview of ANNuR's objectives, mission, and strategic goals. Then, he briefly presented the current status of the ANNuR Thematic Working Groups (TWGs) and provided an update on their action plans. Furthermore, Dr. RADHI emphasized the importance of establishing a Steering Committee for ANNuR to ensure transparency, openness, efficient and effective planning, and implementation of ANNuR activities. This Steering Committee shall: (i) adopt consensus decisions for ANNuR policy, (ii) periodically review and update the ANNuR Terms of Reference, and (iii) review and approve the ANNuR annual work plan. The TWG coordinators shall send an annual report to the Steering Committee about their activities no later than 1 February. Then he suggested that the secretariat for the Steering Committee shall be carried out by the AAEA. At the end of his presentation, Dr. RADHI highlighted the meeting topics and objectives to be achieved.

4.2. IAEA Support to ANNuR– Ms. Seungyeon SON, IAEA:

Ms. Seungyeon SON started her presentation with a short introduction about the IAEA Department of Nuclear Safety and Security and its roles and objectives to protect people, society, and the environment from the harmful effects of ionizing radiation, and provide a strong, sustainable, and visible global nuclear safety and security framework. Ms. SON also represented the IAEA's work to accelerate and enlarge the contribution of atomic energy to peace, health, and prosperity throughout the world and its functions in the field of Nuclear Safety and Security. Furthermore, Ms. SON presented the IAEA support to the MSs'. capacity building, through Peer Review and Advisory Service to assess their application of IAEA standards and guidance to help them improve the level of nuclear safety and security or through education and training programmes (workshops, training courses, online learning, fellowship, schools on specific topics, etc.). Then she introduced the GNSSN and its

role as a platform to support the activities for its members to manage and share information and knowledge for capacity building. She also pointed out the principal commitments of the member states within the IAEA capacity-building programmes. She highlighted the technical cooperation between the IAEA and ANNuR, through several collaboration activities including the updating of the TWGs workplans and launching of the ANNuR Webpage. Ms. SON also briefly presented the IAEA-ANNuR collaboration activities from 2018 to 2024 and planned activities in 2025.

4.3. Current Affairs at STUK: Environmental Monitoring in the Spotlight – Ms. Elina MARTIKKA, and Ms. Sinikka VIRTANEN. STUK Finland:

Ms. Elina MARTIKKA started the joint presentation with a short introduction about the STUK and its roles and objectives in radiation and nuclear safety in Finland. She also provided an overview of the STUK's mission to promote and oversee the safety of the use of radiation and nuclear energy, and the current status of the use of nuclear energy in Finland. Ms. MARTIKKA highlighted the progress in the development of the spent fuel disposal facility. In the second part of the presentation, Ms. Sinikka VIRTANEN provided an overview of the Finnish environmental radiation monitoring approach for monitoring the artificial radioactivity levels. Ms. VIRTANEN mentioned that there are two different levels of monitoring in Finland, one on the national level and on the domestic level in the vicinity of the nuclear facilities. She also provided information about the Finnish External dose rate monitoring network, the distribution of the detectors around the country, and the Environmental radiation monitoring programme of NPPs, Both STUK and the licensee are doing environmental radiation monitoring in the vicinity of the NPP in Finland.

4.4. U.S. Nuclear Regulatory Commission International Activities Overview, Cooperation and Assistance with ANNuR– Ms. Bethany CECERE, International Relations Officer, at the U.S. Nuclear Regulatory Commission:

Ms. Bethany CECERE shortly presented the NRC scope of responsibility, NRC international policy statement, and NRC's international capacity building programs in research reactor, radioactive sources and in the uranium recovery. She mentioned the goals and objectives of the NRC's international assistance program which are to enhance the global regulatory oversight for the safe and secure use of the radioactive materials and radioactive sources. Then she gave a detailed explanation of the mechanism of implementing these programs. She indicated the NRC engagement Across the Middle East, North Africa, and ANNuR priorities in the field of State foundational Infrastructure for Responsible Use of SMR Technology (FIRST) Initiatives, uranium mining and milling regulatory development, environmental impact assessment, inspection and licensing of research reactors, Initiatives in Emergency Preparedness and Cyber Security, physical protection of radioactive sources, fire protection inspection observation. At the end of her presentation, Ms.

CECERE provided a short overview of NRC's goals with ANNuR which included: Deliver training activities that are relevant to ANNuR members, Support Thematic Working Groups, and Supplement training activities with site visits.

4.5. U.S. DOE/NNSA Safeguards Engagement Program Overview, International Nuclear Safeguards Engagement Program (INSEP), Ms. Jarret FISHER, U.S. Department of Energy (DOE), National Nuclear Security Administration (NNSA):

Ms. Jarret FISHER presented a historical overview of the Treaty on the Non-Proliferation of Nuclear Weapons (NPT), and provided a holistic view of the key provisions of the NPT, Comprehensive Safeguards Agreement, Model Additional Protocol, Small Quantities Protocol, and the elements that should be considered by each member state to establish their peaceful use of nuclear technologies. Then she provided examples for the INSEP engagement especially in the requirements of IAEA safeguards agreements, laws and regulations for safeguards implementation, information management systems, and preparing for IAEA inspections and access. She provided a short overview of the positive outcomes of INSEP engagements. Ms. FISHER reemphasized that all NPT parties should benefit from the peaceful applications of atomic energy, and this benefit comes with the responsibility to conclude a safeguards agreement with the IAEA to prevent the spread of unauthorized nuclear technology or material.

4.6. IAEA Support on Strengthening Nuclear Security Capacities in the Arab States - Ms. Zeinab HASSAN, Division of Nuclear Security, IAEA:

Ms. Zeinab HASSAN provided an overview of the IAEA's role and vision in nuclear security to achieve effective security wherever nuclear or other radioactive material is in use, storage, and/or transport, as well as associated facilities and activities. Ms. HASSAN highlighted the IAEA's activities to support the member states in the field of nuclear security by facilitating adherence to international legal instruments and developing nuclear security guidance, capacity building, exchange of information, and assessment of the member states' needs using assessment tools such as the Integrated Nuclear Security Sustainability Plan (INSSP), the Nuclear Security Information Management System Self-Assessment Tool (NUSIMS SAT), peer review, and advisory services. She also provided a brief on the IAEA's assistance to the ANNuR member states on nuclear security and the capacity-building activities for the Arab countries at the national and regional basis. Ms. HASSAN highlighted IAEA support to the Arab Member States for implementing the INSSP, and the current INSSP status in the ANNuR member states; 19 of the Arab member states provided their INSSPs. Furthermore, Ms. HASSAN presented the updated information about the IAEA project on "Strengthening Nuclear Security Capacities in the Arab States" and encouraged the Arab countries to nominate their counterparts to develop the project concept note. At the end of her presentation, Ms HASSAN

highlighted the IAEA's upcoming supportive regional events for Arab member states in the field of nuclear security in 2025.

4.7. IAEA Interregional TC Project INT9185 Establishing an Arab Network for Environmental Radiation Monitoring and Early Warning. Ms. Nahla Sulieman FADLALLA, SUDAN:

Ms. Nahla Sulieman FADLALLA presented a historical overview of the IAEA Interregional TC project for the Establishment of an Arab Network for Environmental Radiation Monitoring and Early Warning starting from the AAEA executive council decision in May 2018 to the development of the project concept note, and the number of Arab countries participated in this project (**12 Arab Countries participate in the project - 6 from Asia: Bahrain, Iraq, Jordan, Kuwait, Lebanon, and Palestine; and 6 from Africa: Egypt, Libya, Mauritania, Morocco, Sudan, and Tunisia**), then she briefly reviewed the aim of the project and the achieved results. Then she highlighted the roles of AAEA in the establishment of the Arab Network for Environmental Radiological Monitoring (ANERM) and the progress of the project in the past three years and the further activities implemented in the development Roadmap for Arab Cooperation in Radiological and Nuclear Emergency Preparedness and Response.

4.8. Multipurpose Fast-neutron Research Reactor MBIR- Ms. Ksenia KOZHEMYAKA, Consortium Leader of MBIR Reactor International Research Centre (IRC), MBIR ROSATOM

Ms. Ksenia KOZHEMYAKO started her presentation with a short overview of ROSATOM and its products in the field of renewable energy, and the company's policy supporting the United Nations' sustainable development goals, including the development of nuclear energy and non-nuclear products. She also briefly provided information about the ROSATOM research reactors around the world and the fundamental principles of the IV generation of the MBIR multipurpose fast neutron research reactors, and their future applications. Ms. KOZHEMYAKO highlighted the international partners of the IRC MBIR project and the steps of joining the project consortium.

4.9. Arab Project on Radiation Protection Officers and Qualified Experts- Ms. Amparo CRISTOBAL, Radiation Safety Officer at IAEA and Dr. Mohammad AL-OMARI, NLO, Jordan:

Ms. Amparo CRISTOBAL briefly described the IAEA supporting activities in the development of regulatory requirements for radiation protection officers (RPOs) at the regional and national levels. She also proposed that ANNuR MSs. can work together to provide guidance and requirements for the designation of the RPO. Ms. CRISTOBAL mentioned that some of the regulatory requirements for RPOs at

different practices (radiotherapy, nuclear medicine, diagnostic and interventional radiology) could be established by a group of ANNuR members and circulated by AAEA for other countries, and she will be ready to review and assist them. These requirements should include: functions, minimum education level, training needed, and experience. She also mentioned that the ANNuR first step shall be to develop the concept of the Arab interregional project for harmonization of the RPOs' regulatory requirements. Ms. CRISTOBAL also explained the difference between the regulatory requirements for the RPOs and qualified experts. Dr. Mohammad AL-OMARI briefly reviewed the steps implemented at the Arab level to harmonize the regulatory requirements for RPOs.

ANNuR coordinators recalled the previous steps taken in this area since the 14th meeting of the network, especially the first regional meeting on Harmonizing the Qualification and Competence for Radiation Protection Officers in ANNuR Member States, which was held from 27 to 29 May 2024, in Cairo, Egypt. The main purpose of the meeting was to review the current ANNuR Member State's national system for licensing or certifying the radiation protection officers (RPOs). During this meeting, the participating MSs developed an action plan for harmonizing the RPOs licensing system.

In light with the proposed concept for interregional TC project entitled “***Establishing a Qualification Programme for Radiation Protection Officers in Arab Countries***” which was submitted to the IAEA for the 2026 – 2027 cycle but was not adopted due to late submission, Dr. AL-OMARI suggested that the (AAEA) can establish a group of experts in the field of certification and accreditation of radiation protection officers. This team will undertake two primary tasks:

- (1) Develop a unified regulatory framework for the certification and accreditation of (RPOs) in various fields of radiation applications, such as medical, industrial, research, and nuclear energy; and
- (2) Review and improve the concept of the proposed interregional project to verify its compliance with technical cooperation requirements and submit it to the IAEA for the 2028 – 2029 cycle in a timely manner.

This effort will contribute to enhancing regional consistency, improving radiation protection and safety standards at the regional level, and facilitating mutual recognition of RPOs certifications among Arab Countries.

4.10. IAEA Support to and Cooperation with Member States Based on the Requirements for Preparedness and Response to Nuclear and Radiological Emergencies, Ms. Muzna ASSI, IAEA:

Ms. Muzna ASSI provided a presentation that started with an overview of the IAEA Incident and Emergency Centre and the main national actors in the preparedness and response for the nuclear and radiological emergency. Then, she represented the IAEA activities to support the member states in the development of the national EPR

capabilities, including the development of the EPR framework, providing safety standards, guidance, IAEA EPR tools, and enhancing the national EPR infrastructure. Then she gave detailed information about the IAEA activities on the ERP capacity building and the establishment of Capacity Building Centres on EPR around the world. Ms. ASSI also presented the agency's regional and international cooperation. Then she briefly represented the IAEA's support to the ANNuR and the initiative to establish the Arab network for environmental radiation monitoring and the new project on the strengthening and harmonizing regional Arab cooperation and coordination in emergency preparedness and response (EPR). At the end, Ms. ASSI highlighted the IAEA International Network for Education and Training on Emergency Preparedness and Response (iNET-EPR), International Radiation Monitoring Information System (IRMIS), and the registration to the IAEA EPR exercises (ConvEx-3, 2025).

5. Country Presentations:

The morning session of the second day of the meeting focused on representing the Arab Countries' regulatory infrastructures. ANNuR regulatory bodies' focal points from (Bahrain, Egypt, Iraq, Jordan, Libya, Mauritania, Morocco, Saudi Arabia, Sudan, Tunisia) provided an overview of the new development and current status of the nuclear and radiological regulatory framework in their countries, and the recent achievements and challenges in the regulatory system for nuclear safety and security. The presentations covered

- (a) Current status of the legal and regulatory infrastructure;
 - (b) National status of the nuclear and radiation programs;
 - (c) Current and future plans for NPPs and RRs;
 - (d) Development of the regulations, safety guides, and integrated management systems (IMS);
 - (e) Cooperation with IAEA and other international organizations to enhance the national capabilities;
 - (f) National coordinators in the ANNuR Thematic Working Groups;
 - (g) National nuclear security regime;
 - (h) Adherence to the International Legal Instruments;
 - (i) The activities within the ongoing interregional TC project INT/9/185: Establishing an Arab Network for Environmental Radiation Monitoring and Early Warning and INT9188 Strengthening and Harmonizing Regional Arab Cooperation and Coordination in (EPR); and
 - (j) Challenges and the proposed activities to enhance the national regulatory framework.
- Most of the Arab regulatory authorities have made good progress in strengthening their regulatory framework.

6. Review of the Objectives and the progress of the activity plans of ANNuR TWGs:

The activities of the afternoon session of the second day sessions focused on two important topics, the first session covered the review of the objectives of ANNuR TWGs by the IAEA technical officers.

6.1. *IAEA Assistance for Safeguards and State System of Accounting for and Control of Nuclear Materials (SSAC), Ms. Marzia BALDASSARI, IAEA Technical Officer, Division of Concepts and Planning, IAEA Department of Safeguards:*

Ms. Marzia BALDASSARI started her presentation with a short introduction about IAEA safeguards, comprehensive safeguards agreements (CSAs), and the cooperation with the IAEA for effective and efficient safeguards implementation. Ms. BALDASSARI represented the IAEA types of assistance in the safeguards through the; (i) National and regional training courses, (ii) IAEA Safeguards and SSAC Advisory Service (ISSAS), (iii) COMPASS, Comprehensive capacity building, (iv) Online resources, (v) Legislative assistance and regulatory support, and (vi) Safeguards traineeship programme. She also highlighted the IAEA 2024 capacity building programme where a variety of training, assistance, and guidance are available to Member States in the safeguards, and encouraged the ANNuR members to contact the IAEA for support in the safeguards based on their national and regional needs.

6.2. *IAEA Technical Support for the Safety of Research Reactors, Ms. Farhana NASEER, IAEA Technical Officer of the ANNuR TWG-8:*

Ms. Farhana NASEER presented the IAEA supporting programme and activities for member states in the safety of Research Reactors, including the IAEA code of conducts for the safety of research reactors, the peer reviews, applications of the safety standards, capacity building, training activities, technical meetings, workshops and coordination of the research projects for sharing the operating experiences. Ms. NASEER provided an overview of the IAEA support for the regulatory supervision of the research reactors, including the development of the inspection programmes, and the available and proposed training materials for the inspection of the research reactors which provided comprehensive information and covered all the inspection topics for the research reactors. She also highlighted the development of the inspection programme for Morocco that can be shared with Forum of Nuclear Regulatory Bodies in Africa FNRBA and ANNuR members.

6.3. *Comments about the Objectives of ANNuR TWGs, Mr. Ugur BEZDEGUEMELI, IAEA Technical Officer of the ANNuR TWG 1:*

Mr. Ugur BEZDEGUEMELI reviewed the objectives and the activity plans of the ANNuR eight TWGs and provided general and specific comments about the

implementations of the TWGs' activities, especially in the areas of legislative and regulatory infrastructure for nuclear safety and security, and the promotion of safety culture within regulatory bodies and operating organizations. Mr. BEZDEGUEMELI also highlighted that the nomination for some of the proposed activities comes directly through official channels from the permanent mission, as the IAEA mechanism for sending the Note Verbal (NV) to the designated MSs, and it is difficult to send these NV to be distributed through the ANNuR TWGs. Mr. BEZDEGUEMELI proposed holding a virtual meeting for the TWGs coordinators, the IAEA technical officers, and the ANNuR MS representatives to review and update the work plan and avoid any interference or duplication in the objectives and activities of the TWGs.

6.4. Progress of the TWGs' work plan and their Achievements in 2024:

In the second session for this day, ANNuR (TWGs) coordinators provided short presentations reviewed the overall objective, the specific objectives, regional status in the topical area, the status and achievement and the challenges in the development of the work plans in 2024, and the future proposed activities in 2025. The TWGs coordinators share the following challenges:

- a) Difficulties in the communication mechanism and follow-up with the MSs' representatives;
- b) Continuous updating of the ANNuR MSs' representatives in the TWGs;
- c) Difficulties in collaboration and coordination with other TWG coordinators and experts;
- d) Unavailability of information regarding different events organized under the Asian and African regional TC projects and their progress; and
- e) Limited funding for implementing the proposed activities.

7. Review of ANNuR and TWGs ToRs, and Work Plan 2025 – 2026:

The morning session of the last day of the meeting was allocated to review the Terms of Reference (ToR) of ANNuR and TWGs' work plans. The attendees read and reviewed the document paragraphs and items, including the recognitions, the name of the network, its purpose and objectives, membership, the organs of the ANNuR, and its Steering Committee, TWGs, roles of the TWGs coordinators and qualifications of the national representatives in these TWGs, and finally the reporting process. The Arab MSs' representatives in the meeting noted that the version uploaded to the ANNuR's website is not up-to-date and is not compatible with the version reviewed at the 14th annual meeting of ANNuR held in 2023, and there are differences between the wording of the Arabic and English versions of the ToR. Therefore, the participants suggested reviewing the two versions and uploading the updated one on the ANNuR website.

Dr. Bryan BANDONG, the North Africa Regional Safeguard Officer at Lawrence Livermore National Laboratory, suggested adding the safeguard to points (4 and 6) of the recognition paragraph.

As the regulatory oversight of the regulatory bodies in Arab countries covers all radiological and nuclear activities, and most of these countries do not have an active nuclear installation programme while having extensive radiological activities, therefore, the participants suggested changing the name of the network to be “Arab Network of Nuclear and Radiological Regulators (ANNuRR)” and updated that in the network ToR.

Due to the absence of most of the TWGs coordinators and the time needed to review the work plans, Dr. Sherif Bakr, the coordinator of TWG-2 and the Chairman, suggested that the TWGs coordinators will review their objectives and the next year’s work plan in cooperation with the designated IAEA technical officers and submit the final version to the ANNuR secretariat by the 9th of May 2025.

8. Meeting Summary:

At the end of the meeting sessions, ANNuR Chairman, Dr. Sabah Al-HUSSAINI presented a summary of the meeting activities. He acknowledged the active contribution and engagement of IAEA technical officers, and the effective participation of the international partners from (NRC, DoE, and STUK), ANNuR Member states’ representatives and ANNuR new coordinator (Dr. Firas RADHI) and IAEA Office of Safety and Security Coordination team headed by new PMO Ms. Seungyeon SON. As lessons learned from the meeting discussions, Dr. Sabah Al-HUSSAINI highlighted that the countries still need help in strengthening nuclear safety and security at all levels. He further acknowledged the active and practical participation of the ANNuR member states to cover all the topics within the meeting agenda. He also thanked the thematic working groups’ coordinators for their serious efforts and hopes that the next few months will show good progress and great results. Dr. Al-HUSSAINI encouraged the ANNuR Member States to continue communication and joint coordination in the nuclear and radiological regulatory control.

9. Closing Remarks and Action Items:

In their pursuit of establishing a comprehensive approach to address ANNuR regional needs in radiation and nuclear safety, security, and safeguards, the Arab member states’ representatives adopted the following action items:

- 9.1.** ANNuR MSs are encouraged to identify the national coordinators of the Nuclear Security project to develop the project concept note for the next IAEA TC cycle;
- 9.2.** Establishing a steering committee for ANNuR according to the network ToR, to ensure the efficient and effective planning, and implementation of ANNuR activities and the secretariat for this steering committee shall be carried out by the AAEA;
- 9.3.** Identify a group of experts to work on the development of a unified regulatory framework in the Arab member states for the certification and accreditation of

(RPOs) and to review and improve the concept of the proposed interregional project entitled “Establishing a Qualification Programme for Radiation Protection Officers in Arab Countries”;

- 9.4. Arab member states shall establish a mechanism for cooperation and joint coordination to implement some events and training activities of common interest and benefit from the exchange of knowledge and regulatory experiences among the nuclear regulatory bodies in Arab countries to develop relevant aspects in other countries;
- 9.5. ANNuR Member States (e.g., Saudi Arabia) are encouraged to nominate a new coordinator for TWG-1. Libya is also encouraged to nominate a new coordinator for the TWG-6;
- 9.6. Arab Member States (Egypt, Sudan, Morocco, Jordan, Mauritania) are highly requested to add the designated TWG coordinators in their national delegations in the future meetings of ANNuR to present the progress in the implementation of the action plan;
- 9.7. To avoid interference or duplication in the work plans, and to get the maximum benefits from the provided technical support, the TWGs coordinators are encouraged to organize a virtual meeting in the presence of the IAEA technical officers and the national representatives for each group;
- 9.8. Reemphasize the following action items from the 15th annual meeting:
 - a) Arab member states are highly requested to update their members’ list in the thematic working groups (TWGs) and designate an active team to participate in the TWGs that they are interested in, (the nomination shall only be from the designated national regulatory authority);
 - b) Establish a sustainable and trustful communication mechanism to communicate between the TWG coordinators and ANNuR member states representatives;
 - c) ANNuR shall establish an official mechanism requesting IAEA support to the TWG-6 in the nuclear safeguards.
- 9.9. Each thematic working group shall hold periodic meetings to discuss the progress in the implementation of the activity plan. The IAEA PMO and TOs designated for each group and ANNuR coordinator (Dr. Firas RADHI) are kindly invited to participate in the proposed meetings;
- 9.10. Member States’ representatives proposed that the upcoming meetings of ANNuR be held in Arabic and provide direct interpreters for international experts;
- 9.11. ANNuR coordinator and the TWGs coordinators shall cooperate with the IAEA Office of Safety and Security Coordination to update ANNuR website; and
- 9.12. TWGs coordinators shall submit their updated work plans to (Dr. Firas RADI) within two weeks, before the 9th of May 2025.

Participants List of the 16th Annual Meeting of ANNuR

I. In person Participants:

#	Name	Email address	Country	Organization
1	Dr. Sabah Hassan Nooruldeen AL- HUSSAINI (Chairman)	Alhussaini97@gmail.com	Iraq	National Nuclear, Radiological, Chemical and Biological Regulatory Commission (I-NRC)
2	Mr. Ahmed Frag Saleh AL-JOBOURI	afsalih@gmail.com	Iraq	National Nuclear, Radiological, Chemical and Biological Regulatory Commission (I-NRC)
3	Dr. Sherif Mohamed BAKR (TWG-2)	Sherif.bakr@enrra.org	Egypt	Egyptian Nuclear and Radiological Regulatory Authority
4	Dr. HebaAllah AbdulSamee SAKR		Egypt	Egyptian Nuclear and Radiological Regulatory Authority
5	Mr. Amer GHAZI	Amer.hussein@emrc.gov.jo	Jordan	Energy & Minerals Regulatory Commission
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Day 1 – Tuesday 22 April 2025	
09:30 – 10:00	1. Opening Session - Welcome by, Mr. S. Hamdi, DG- AAEA - Welcome by, Mr. Sabah Al-Husseini, ANNuR Chairman - Welcome by, Ms. Seungyeon son, IAEA - Welcome by, Ms. Leila Benali, Minister of Energy Transition and Sustainable Development, Morocco - Welcome by Mr. Adel Trabelsi, Tunisian Government - Self-Introduction of Participants
10:00 – 10:10	2. Adoption of the Agenda and designated of Rapporteur– ANNuR Chairman
10:10 – 10:30	3. ANNuR Overviews and Status– Mr. Firas, AAEA
10:30 – 10:50	4. IAEA support to ANNuR– Ms. Seungyeon son, IAEA
10:50 – 11:10	5. Current affairs at STUK: Environmental Monitoring in the spotlight – Ms. Elina Martikka, Ms. Sinikka Virtanen. STUK Finland
11:10 – 11:30	6. USNRC Cooperation and Assistance with ANNuR– Ms. Bethany, USNRC
11:30 – 11:50	Coffee Break + Group Photo
11:50 – 12:10	7. U.S. DOE/NNSA Safeguards Engagement Program Overview, Ms. Fisher DOE/ENSEP
12:10 – 12:30	8. IAEA Support on Strengthening Nuclear Security Capacities in the Arab States - Ms. Zeinab Hassan, Division of Nuclear Security, IAEA
12:30 – 12:50	9. IAEA Interregional TC project “Arab Network for Environmental Radiation Monitoring and Early Warning” -Nahla Sulaiman, Sudan
12:50 – 13:15	10. Multipurpose fast-neutron research reactor MBIR- Ms. Ksenia Kozhemyaka, IRC MBIR ROSATOM
13:15 – 14:30	Lunch Break
14:30 – 15:00	14. INT9188 Strengthening and Harmonizing Regional Arab Cooperation and Coordination in Emergency Preparedness and Response (EPR)- Ms. Muzna Assi, IAEA
15:00 – 16:00	15. Arab Project on Radiation Protection Officers and Qualified Experts- Ms. Amparo -IAEA; Mr. Issa; Mr. Al Omari, Jordan

Day 2 – Wednesday 23 April 2025	
09:00 – 12:40	1. Country Presentations (20 Mins each) 1. Bahrain 2. Egypt 3. Iraq 4. Jordan 5. Lebanon 6. Libya 7. Mauritania 8. Morocco 9. Saudi Arabia 10. Sudan 11. Syria 12. Tunisia 13. Yemen
12:40 – 13:40	Lunch break
13:40 – 14:30	-Review of the Objectives of ANNuR TWGs; <i>Ms. Marzia Baldassari, Mr. Ugur Bezdegumeli, Ms. Rania Gomaa.</i> <i>Ms. Farhana Naseer, IAEA, All</i>
14:30 – 16:30	Progress and work plan for TWGs 20 Min for each
Day 3 – Thursday 24 April 2024	
09:00 – 10:00	ANNuR and Thematic Working Groups ToRs Review, <i>All</i>
10:00 – 11:00	ANNuR and Work Plan 2025, 2026, <i>All</i>
11:00 – 11:30	ANNUR TWG membership and operation
11:30 – 12:30	Finalizing Discussion Producing a List of Action items
12:30 – 13:00	Summary Report and closing