



**ANSN**

Asian Nuclear Safety Network

Asian Nuclear Safety Network  
Annual Report 2023



**GNSSN**

Global Nuclear  
Safety and Security  
Network

## 1. Introduction

The Asian Nuclear Safety Network (ANSN) was established by the IAEA in 2002 with the purpose of pooling, analysing, and sharing nuclear safety-related information, knowledge, and experience among the ANSN Member States. The ANSN aims to support all member countries in enhancing the safety of nuclear installations in the region by providing continuous capacity-building through the Network's activities.

Since its inception, more than 720 activities have taken place under the ANSN umbrella with the vision of enhancing Nuclear Safety Infrastructure in Asian countries. These activities cover a wide range of topics, including the regulatory infrastructure for nuclear power programs, design and operational safety of nuclear power plants (NPP), emergency preparedness and response (EPR), and the transport of nuclear materials.

The year of 2023 was a milestone in the ANSN's direction and mission in the Asian region. The ANSN Steering Committee recognized the need for a comprehensive transformation of the network to better respond to the changing environment and the evolving policies and focused programs of its member countries.

## 2. Membership

ANSN has 11 Member Countries<sup>1)</sup>, 4 Supporting Countries<sup>2)</sup>, and 1 Associated Country<sup>3)</sup>.

- 1) Bangladesh, China, Indonesia, Japan, Kazakhstan (not active), Republic of Korea, Malaysia, Philippines, Singapore, Thailand, and Viet Nam
- 2) France, Germany, U.S.A, and Australia (not active currently)
- 3) Pakistan

## 3. Operation Mechanism

### **Steering Committee:**

The Steering Committee (SC) is established as the governing body of ANSN and is responsible for making major decisions to ensure that ANSN fulfils its objectives. The SC consists of one or two representatives from each Member Country and Supporting Country, serving a three-year term.

**[ ANSN SC members (2022-2024, as of December 2023)]**

Country	Name	Organization	Note
Bangladesh	Mr Ashoke Kumar Paul	Bangladesh Atomic Energy Commission	
China	-	-	Yet to nominate
France	Mr Sylvain Petit	Institute de Radioprotection et de Surete Nucleaire - IRSN	
Germany	Mr Marcus Moshoevel	Ministry for the Environment, Nature Conservation and Nuclear Safety	
Indonesia	Mr Haendra Subekti	Nuclear Energy Regulatory Agency of Indonesia (BAPETEN)	
Indonesia	Mr Totti Tjiptosumirat	National Agency for Research and Innovation (BRIN)	
Japan	Mr Michio Kubota	Nuclear Regulation Authority (NRA)	Chairperson
Kazakhstan	-	-	Yet to nominate
Republic of Korea	Mr Jae Woong Chung	Korea Institute of Nuclear Safety	
Republic of Korea	Ms Juhyeon Kim	Nuclear Safety and Security Commission	
Malaysia	Ms Ibrahim Muhamad	Atomic Energy Licensing Board (AELB)	
Philippines	Mr Alan M Borras	Philippines Nuclear Research Institute (PNRI)	Vice Chairperson
Singapore	Mr Kok Kiat Ang	National Environment Agency	
Thailand	Ms Pennapa Kanchana	Office of Atoms for Peace (OAP)	
Thailand	Ms Phiriyatorn Suwanmala	Thailand Institute of Nuclear Technology (TINT)	
USA	Ms Luana Cool	Nuclear Regulatory Commission	
Viet Nam	Mr Nguyen An Trung	Vietnam Atomic Energy Institute (VINATOM)	
Viet Nam	Ms Thi Thuy Anh Bui	Vietnam Agency for Radiation and Nuclear Safety (VARANS)	

### Topical Working Groups:

The ANSN established 11 topical working groups with the aim of identifying and sharing good practices and lessons learned among ANSN member countries. Each group is also responsible for assessing the technical needs for ANSN capacity-building activities and recommending them to the Self-Assessment Coordination Group (SACG). The groups consist of 6 to 12 experts nominated by the member countries along with one coordinator\* who serves the group leader.

*\* As of December 2023, coordination among the TG members has been suspended.*

- Self-Assessment Coordination Group (SACG)
- Information Technology Support Group (ITSG)

- Regulatory Infrastructure Topical Group (RITG)
- Education and Training Topical Group (ETTg)
- Siting Topical Group (STG)
- Safety Assessment Topical Group (SATG)
- Radioactive Waste Management Topical Group (RWMTG)
- Emergency Preparedness and Response Topical Group (EPRTG)
- Safety Management of Research Reactor Topical Group (SMRRTG)
- Communication and Consultation Topical Group (CTG)
- Radiation Protection and Transport Safety Topical Group (RTTG)

### **Secretariat:**

The IAEA Department of Nuclear Safety and Security (Network Management and Partnership Section, NSOC) serves as the Secretariat for ANSN and supports its activities. The Program Management Officer (PMO) coordinates the ANSN support project\* with the support of IAEA Technical Officers designated for respective Topical Groups.

*\* The project is funded by voluntary contribution from Japan (NRA) and Republic of Korea (NSSC, KINS)*

## **4. Achievement in 2023**

*In 2023, the ANSN successfully completed a total of 11 workshops to support the capacity building effort of its member countries in specific technical areas. Information of each event including the presentation materials used by the experts and presented by the participants, is available on the ANSN website.*

*To enhance the efficiency and effectiveness of its operations and planning future activities and strategies, the ANSN conducted several meetings. Notably, in 2023, the ANSN members recognized the need to reform the network's operational and technical mechanisms to better respond to the evolving environment and needs. As a result, they decided to launch a "Transformation Task Force Team" to gather ideas and develop a detailed plan for this initiative.*

- 1) IAEA-Fukui Workshop on Safety Culture Self-Assessment for Regulatory Bodies



The overall objective of this regional workshop was to orient participants of the regulatory bodies to establish a strategic approach to assessing and enhancing safety culture. The workshop provided a forum for discussing culture, the elements of a safety culture improvement programme, the relationship with other organizational improvement activities and strategies, as well as the role of self-assessment of safety culture in regulatory bodies for establishing improvement priorities.

27 February-03 March 2023, Fukui Japan, 14 participants from 6 ANSN MSs (except 2 IAEA experts)

## 2) Regional Workshop on the Management of National Dose Registries



The purpose of the workshop was to review and discuss best practices in the implementation and management of national dose registries for occupational exposures in Member States, and the objectives of the event are:

- To increase understanding on relevant requirements of GSR Part (Rev.1) and 3 and recommendations provided by GSG-7 for the retention of workers' records of occupational exposure by the regulatory body or a State registry and its implementation,
- To discuss the problems faced at the time of the establishment and during the operation phase of the dose registry with their solutions through group discussions,
- To exchange information on the current status of national dose registries in the region,
- To provide information on IAEA's Occupational Radiation Protection Programme services and information exchange platforms, such as ORPAS, ISEMIR and ORPNET.

20-24 March 2023, Bangkok, Thailand, 32 participants from 17 Member States\* (except 3 IAEA experts) \* this event was open to IAEA Member States as well as ANSN members

3) Regional Workshop on the Emergency Preparedness and Responses to Nuclear or Radiological Emergencies

This workshop was intended to provide the participants with the knowledge and practical skills necessary for an effective response in a nuclear or radiological emergency. Towards the global harmonization, the workshop intended to provide an opportunity for mutual benchmarking, providing a forum for the participants to discuss their national practices and to exchange their experience related to the subjects covered, as well as to identify good practices and areas that need improvement with regard to emergency preparedness and response.

19-23 June 2023, Daejeon, Korea, 20 participants from 13 Member States\* (except 2 IAEA experts) \* this event was open to IAEA Member States as well as ANSN members.

4) Regional Workshop on the Development and Implementation of Effective Integrated Management Systems for Nuclear Facilities and Activities

The purpose of the event was to provide the participants with practical knowledge on the development and implementation of effective integrated management systems for nuclear facilities and activities, based on Leadership and Management for Safety (IAEA Safety Standards Series No. GSR Part 2). The workshop oriented the participants to what is involved in establishing a strategic approach to develop and implement an integrated management system.

31 July – 4 August 2023, Jakarta, Indonesia, 22 participants from 8 Member States (except 3 IAEA experts)

5) Regional Workshop on the Development of National Strategies and Regulatory Requirements for Spent Fuel Management



The workshop intended to review the development of national strategies and regulatory requirements for spent fuel management for central governments and regulatory bodies. The range of topics considered includes the following:

- International standards for the safety of spent fuel management.
- Key components of national strategies for radioactive waste and spent fuel management.
- Development, review and implementation of strategies for radioactive waste and spent fuel management.
- Arrangements and processes for the effective regulation of radioactive waste and spent fuel management.
- Assessment of different options for spent fuel management.
- Wet and dry storage of spent fuel.

11 – 15 September 2023, Beijing, China, 15 participants from 6 Member States (except 3 IAEA experts)

#### 6) Regional Workshop on Operating Experience Feedback for Research Reactors



The purpose of the event was to provide a forum for the participating Member States to share knowledge, exchange information and discuss lessons from events at research reactor facilities. The workshop also provided practical knowledge and information on application of IAEA safety standards for operating experience feedback of research reactors.

- Application of IAEA safety requirements for the OEF for research reactors;
- Elements of effective OEF programme for research reactors;
- Experience in using IRSRR for exchange of OEF;
- Application of a graded approach in the OEF for research reactors.

11 -15 September 2023, Vienna, Austria, 10 participants from 6 Member States (except 2 IAEA experts)

7) Regional Workshop on Requirements for the Safe Transport of Radioactive Material

The purpose of the event is to understand and discuss applicable international safety requirements for the transport of radioactive material. The workshop will focus on the application of Transport Regulations i.e., IAEA SSR-6 (Rev-1) using graded approach, share a mechanism to assure that the requirements are being met in practice and role of national, regional and international cooperation to make these requirements more effective.

2 – 6 October 2023, Hanoi, Viet Nam, 22 participants from 7 Member States (except 3 IAEA experts)

8) Regional Workshop on the Advances in Management of Training Systems for Nuclear and Radiological Safety

The workshop identified and documented regulatory training management practices and introduced principles of analysis of strengths and weaknesses, opportunities and threats (SWOT) for training management. Participants of the previous year's workshop were invited to describe in detail the training arrangements used in their organization.

6- 10 November 2023, Manila, Philippines, 19 participants from 7 Member States (except 3 IAEA experts)

9) 11th Annual Meeting of Regional Advisory Safety Committee for Research Reactors in Asia and the Pacific (RASCAP)



The purpose of the event was to provide a forum for the safety committees of research reactor operating organizations in the Asia and the Pacific region to share knowledge and experiences related to research reactor safety. The work plan of the next RASCAP was also developed during the meeting.

6 – 10 November 2023, Bangkok, Thailand, 20 participants from 10 Member States (except 2 IAEA experts)



10) Regional Workshop on Site Evaluation for Small Modular Reactor

The purpose of the event was to share information and knowledge on site evaluation for small modular reactors. It aimed to enhance the understanding and competence of regulatory bodies and future operators with regard to site evaluation for SMRs as per IAEA safety standards and supporting documents, and member states practices.

6 – 10 November 2023, Haikou, China, 14 participants from 7 MSs (except 3 IAEA experts)

11) Regional Workshop on Review and Assessment of Nuclear Power Plant License Application by Regulatory Bodies

The purpose of the workshop was to provide information and guidance on appropriate organization and management, and also effective conduct of one of the core functions of the regulatory body namely; “regulatory review and assessment” to the embarking countries. It didn’t intend not to train the participants on how to perform review and assessment of a specific subject such as review and assessment of deterministic accident analysis.

13 – 16 November 2023, Manila, Philippines, 19 participants from 7 MSs (except 3 IAEA experts)

12) Consultancy Meeting on the ANSN Activity Plan for 2024-2026

The meeting was to discuss the activity plan and screening criteria to select the capacity building support activities. In the meeting, the participants reviewed the implementation status of ANSN activities in 2023 and discussed how to reflect the Member States’ challenges in nuclear safety framework.

8 – 10 March 2023, Vienna, Austria, 5 participants

13) The 33rd Meeting of ANSN Steering Committee



The meeting was to approve the newly formulated activity planning and implementation process and the ANSN activity plan for 2024. The meeting was also devoted to review the current challenges that the network faced in reflecting the member states' changed needs and activating the knowledge networking between the participating member states. During the meeting, the participants agreed to launch a Task Force to review the overall aspect of the network's operation and fundamental objectives. It was also agreed that each Member State submitted to the IAEA PMO their activity proposals for 2025.

28 – 30 August 2023, Vienna, Austria, 14 participants from 11 MSs

#### 14) Kick off meeting of the ANSN Transformation Task Force Team

The meeting was held to discuss the TFT work plan and scope of transformation. The participants discussed the current ANSN feature and technical scope, challenges in the current activity formats as well as collaboration with other regional organizations such as ASEANTOM. The meeting concluded with the action items such as drafting ANSN TOR and main strategy.

2 November 2023, Virtual, 8 participants