

THE ASEAN NETWORK OF REGULATORY BODIES ON ATOMIC ENERGY (ASEANTOM)

WORK PLAN 2018 – 2022

I. BACKGROUND

1 At the 20th ASEAN Summit held in Phnom Penh, Cambodia in 2012, the ASEAN Leaders agreed to the formation of the ASEAN Network of Regulatory Bodies on Atomic Energy (ASEANTOM). ASEANTOM was officially formed when its Terms of Reference were adopted at the ASEAN Joint Preparatory Meeting in September 2013, held in parallel to the ASEAN Senior Officials' Meeting (ASEAN SOM). In December 2015, ASEANTOM was officially designated as an Annex I sectoral body under the ASEAN Political-Security Community, and would report to ASEAN SOM.

2 The objective of ASEANTOM is to enhance regulatory activities and strengthen nuclear safety, security, and safeguards within the ASEAN Community, by enhancing cooperation and complementing the work of existing mechanisms at the national, bilateral, regional, and international levels.

3 The ASEAN Political-Security Community Blueprint 2025 adopted at the 27th ASEAN Summit in Kuala Lumpur, Malaysia in November 2015 states that ASEAN would develop a coordinated approach to improve nuclear safety, in cooperation with the International Atomic Energy Agency (IAEA) and other relevant partners (Element B.5.2). This would be achieved through the following:

- a) Formalise relations, between ASEAN and the IAEA;
- b) Promote the peaceful uses of nuclear energy in compliance with the IAEA safety, security, and safeguards standards;
- c) Explore joint research and development projects in civilian nuclear technology, with international organisations, such as the IAEA, through workshops, seminars, and exchange of experts;
- d) Encourage accession to the Convention on Assistance in the Case of a Nuclear Accident or Radiological Emergency, the Convention on Nuclear Safety, and the Convention on Early Notification of a Nuclear Accident; and
- e) Strengthen ASEANTOM and develop partnerships with nuclear regulatory bodies of other regions and relevant international organisations in order to contribute to nuclear nonproliferation, maintaining international standards of nuclear safety and security, preventing nuclear-related accidents, and protecting against nuclear terrorism.

II. OVERVIEW OF PROJECTS UNDERTAKEN BY ASEANTOM

4 The projects currently undertaken by ASEANTOM are as follows:

1) ASEANTOM-IAEA Regional Project RAS/9/077: Supporting Regional Nuclear Emergency Preparedness and Response in the Member States of ASEAN Region

The objective of this 4-year (2016–2019) regional project is to develop and implement emergency preparedness and response (EPR) arrangements both at the national and regional levels to protect the people and the environment in case of a severe nuclear and radiological incident.

The key activities that are taking place under the respective project outputs are as follows:

Output 1: Established regional radiation monitoring system

- a) The IAEA had engaged external experts to assess possible hazards in the region and draw up a draft concept on national and regional radiation monitoring in ASEAN. The IAEA had received ASEANTOM Members' inputs to the concept, and would work towards finalising the concept.
- b) Based on the concept, the European Commission (EC) could provide funding for the installation of radiation monitoring stations in some ASEAN member states.

Output 2: Established harmonised assessment capabilities

- c) A regional workshop on Assessment and Decision Making on Protective Actions and Other Response Actions in a Nuclear or Radiological Emergency was held in August 2017 in Pattaya, Thailand.
- d) Based on the conclusions of the workshop, the IAEA would engage external experts to draft a concept on decision making protocol and subsequently circulate it for ASEANTOM members' inputs.

Output 3: Developed public information strategy

- e) A regional workshop on Communication with the Public in a Nuclear or Radiological Emergency was held in June 2017 in Singapore.
- f) A follow-up regional workshop on Assessment and Decision Making Protocol and Public Communication Strategy in a Nuclear or Radiological Emergency was held in March 2018 in Singapore.
- g) Following the workshops, a working group has been formed to further develop and finalise the draft ASEAN Protocol for Preparedness and Response to a Nuclear or Radiological Emergency in collaboration with the ASEAN Coordinating Centre for Humanitarian Assistance on Disaster Management (AHA Centre). This Protocol will be tabled for discussion at subsequent meetings.

Output 4: Enhanced early warning system capabilities

h) A group Scientific Visit on Radiation Monitoring for EPR was attended by 6 ASEAN member states (Indonesia, Malaysia, the Philippines, Singapore, Thailand and Vietnam) in December 2017 in Ibaraki Prefecture, Japan.

2) Enhancing Emergency Preparedness and Response in ASEAN¹ and Follow-up Projects

The EC Feasibility Study established an ASEAN Strategy for Regional Cooperation on Radiological and Nuclear EPR and its corresponding Action Plan. Based on the findings of the EC Feasibility Study, which was concluded in early 2016, the first follow-up project on “Enhancing Emergency Preparedness and Response in ASEAN: Technical Support for Decision Making” commenced in January 2018.

The Consortium, comprising Karlsruhe Institute of Technology, PDC Argos, SCK CEN, as well as ENCO, was appointed as the Contractor for the implementation of this 3-year project. The objective of this project is to enhance the quality and coherence of decision making within ASEAN following a radiological or nuclear emergency. This will be achieved through the installation and use of state-of-the-art tools/software to support decision making within emergency centres, at national and ASEAN levels.

The project will comprise the following key activities: (a) installation, customisation, and training of the DSS in each of the 6 participating member countries and support given to the other 4 remaining ASEAN States; and (b) table-top exercises to enhance capabilities in the use of tools and promoting greater coherence within ASEAN in responding to an emergency. The Kick-off Meeting and 1st Technical Workshop introducing the Decision Support Systems (DSS) and their use in EPR were held in February 2018 in Bangkok, Thailand.

Additionally, an ad-hoc meeting was held between the EC - Instrument for Nuclear Safety Cooperation (EU-INSC) and ASEANTOM members in February 2018 in Bangkok, Thailand. The objective of the meeting was to discuss the nature and scope of cooperation needed with EU-INSC to establish a sustainable early warning radiation monitoring network (EWRMN), and a regional centre in ASEAN which are beneficial and can be tapped onto by all 10 ASEAN Member States,

3) ASEANTOM-IAEA Regional Project on Strengthening Regulatory Capacities for Licensing, Inspection and Enforcement for the Security of Radioactive Materials and Associated Facilities

¹ The following 6 ASEANTOM Members are participating in the EC Feasibility Study and follow-up projects: Indonesia, Malaysia, Philippines, Singapore, Thailand, and Vietnam.

The 2-year project started in 2018, with a funding of EUR 500,000. The project involves the regulatory bodies or relevant authorities of all 10 ASEAN Member States.

The project comprises the following activities: a) consultancy meeting in Vienna from 22 to 26 January 2018; b) discussion on the project with some ASEAN States (Cambodia, Philippines and Vietnam) during the review missions of their respective Integrated Nuclear Security Support Plans (INSSPs) from December 2017 to April 2018; c) regional training course on licensing inspection for radioactive material in Manila, Philippines from 9 to 13 April 2018; d) pilot national training course on authorisation and inspection for the security of radioactive material and associated facilities in Malaysia from 16 to 20 July 2018; e) national training courses from Q4 2018 to Q3 2019 (e.g. Thailand, Nov 2018); f) technical visits in 2019; g) regional training course in Q1 2020; and h) regional workshop on project closing in Q2 2020.

III. ASEANTOM WORK PLAN 2018–2022

5 The ASEANTOM Work Plan 2018–2022 details the action programmes, key objectives, milestones, and deliverables for the 5-year period from 2018 to 2022, to work towards achieving ASEANTOM’s objective of applying peaceful uses of nuclear energy in compliance with the IAEA safety, security, and safeguards standards, as laid out in its Terms of Reference, as well as the relevant targets set out in the ASEAN Political-Security Community Blueprint 2025.

6 The key action programmes are as follows:

- a) ASEANTOM-IAEA RAS 9077 Project
- b) EC Follow-up Project 1 – ASEAN-EU project on Enhancing Emergency Preparedness and Response in ASEAN: Technical Support for Decision Making
- c) EC Follow-up Project 2 – ASEAN-EU project on Enhancing Emergency Preparedness and Response in ASEAN: ASEAN Early Warning Radiation Monitoring Network (EWRMN)²
- d) ASEANTOM-IAEA Regional Project on Nuclear Security
- e) Implementing Technical Aspects of the Plan of Action to Strengthen the Implementation of the Treaty on the SEANWFZ (2018 – 2022)
- f) Enhancing International Profile and Linkages

² EC will submit concept proposal to seek ASEANTOM’s interest in the project by Q2 2018.

g) Strengthening ASEANTOM Institutional Arrangements

7 The ASEANTOM Work Plan 2018–2022 is below. The timelines of the action programmes can be found in [Annex A](#).

a) ASEANTOM-IAEA RAS 9077 Project

S/N	Key Objectives/Milestones/Deliverables	Timeline
1	Regional Workshop on Emergency Monitoring and International Data Sharing, Indonesia	2018
2	Regional Workshop on Self-Assessment of EPR (GSR part 7, EPRIMS) in Philippines (15 to 19 Oct)	2018
3	Establish a harmonised assessment and decision making protocol, and regional public communications strategy	2019
4	Define concept for a regional monitoring system	2019
5	Final Project Meeting, Thailand	2019
6	Concept paper for a follow up IAEA TC project to test and evaluate the regional protocol established (for 2022-2023 cycle)	2019

b) EC Follow-up Project 1 – ASEAN-EU project on Enhancing Emergency Preparedness and Response in ASEAN: Technical Support for Decision Making

S/N	Key Objectives/Milestones/Deliverables	Timeline
1	Install and customise decision support systems (DSS), for use in the regulatory bodies in the six participating ASEAN Member States and extend similar support to the other 4 ASEAN Member States.	2018-2020
2	Train personnel on the deployment and use of these DSS tools	2018-2020
3	Conduct regional table-top exercise to demonstrate the efficacy of the training and promote more coherent emergency response at a regional level.	2020
4	Explore need to establish a regional decision support centre that is accessible to all ASEAN Member States.	2018 - 2020

c) EC Follow-up Project 2 – ASEAN-EU project on Enhancing Emergency Preparedness and Response in ASEAN: ASEAN Early Warning Radiation Monitoring Network (EWRMN)

S/N	Key Objectives/Milestones/Deliverables	Timeline
1	Introduction of the proposed project proposal for approval	2018
2	Development of the more detailed ToR	2018
3	Commencement of the ASEAN Early Warning Radiation Monitoring Network project	2019
4	Establish a regional early warning radiation monitoring network in ASEAN	2020 – 2022 (tentative)
5	Establish a regional data sharing platform in ASEAN and a regional data centre	2020 – 2022 (tentative)
6	To build and maintain a Xenon Monitoring Station in Hanoi to be integrated into the proposed ASEAN network, subject to EC's approval	2020 – 2022 (tentative)

d) ASEANTOM-IAEA Regional Project on Nuclear Security

S/N	Key Objectives/Milestones/Deliverables	Timeline
1	Strengthen ASEANTOM Members' regulatory capacities for licensing, inspection and enforcement for the security of radioactive materials and associated facilities	2018-2020
2	National training courses	Q4 2018 to Q3 2019
3	Technical visits	2019
4	Regional workshop on project closing	2020

e) ASEANTOM/NNSA Project on Exercise Development Training Series (EDTS)

S/N	Key Objectives/Milestones/Deliverables	Timeline
1	Strengthen ability of ASEAN Member States to plan and conduct table-top and field exercises focusing on a variety of subjects including smuggling of nuclear material and other radioactive sources, attempted theft or sabotage of such materials, their accidental release, and response to their malicious use.	2019 - 2022
2	Develop a thorough understanding of exercise design concepts and improved working relationships with international counterparts, to enable ASEAN Member States to conduct regional exercises as well as support each other in the execution of domestic exercises.	2019 - 2022

f) Implementing Technical Aspects of the Plan of Action to Strengthen the Implementation of the Treaty on the SEANWFZ

S/N	Key Objectives/Milestones/Deliverables	Timeline
1	Formalise relations between ASEAN and IAEA (3c of POA)	2018
2	Strengthen relevant existing and prospective mechanisms within ASEAN such as the Nuclear Energy Cooperation Sub-Sector Network (NEC-SSN) and the ASEAN Network of Regulatory Bodies on Atomic Energy (ASEANTOM) to contribute to the eventual development of a regional nuclear safety regime to regulate and oversee the safety assessment requirements for those States Parties which have embarked on peaceful nuclear energy programmes, in accordance with Article 4 of the SEANWFZ Treaty.	Ongoing
3	Encourage Member States to make a report on their respective implementation of the Plan of Action	Ongoing
4	Promote cooperation with the IAEA, other international and regional bodies and institutes with the relevant resources and expertise including the Comprehensive Nuclear-Test-Ban Treaty Organization (CTBTO), other Nuclear Weapon-Free Zones, Dialogue Partners, Nuclear Weapon States and other friendly States, to seek their support for the implementation of the provisions of the SEANWFZ Treaty.	Ongoing
5	Develop national/regional legal framework to meet international standards on nuclear safety	2018 – 2022
6	Establish regional networks for early warning (Covered under ASEAN-EU Project on EWRMN)	2022
7	Develop a regional emergency preparedness and response plan (Covered under RAS 9077 Project)	2019
8	Explore feasibility of establishing bilateral arrangements between ASEANTOM	Ongoing

	and the regulatory authorities in Asia Pacific countries ³ to facilitate requests for assistance during emergencies (e.g. in the form of equipment, technical experts, information exchange)	
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g) Enhancing International Profile and Linkages

S/N	Key Milestones/Deliverables	Timeline
1	<p>Develop a formal ASEANTOM website as a subdomain under the ASEAN website and with a password protected database, to better profile ASEANTOM and ensure proper knowledge management</p> <ul style="list-style-type: none"> • ASEANTOM to agree to set up a new website through possible funding from the ASEAN Secretariat Operational Budget • Singapore and Thailand to prepare and submit concept note for proposal to ASEAN Secretariat for approval • Thailand and Singapore to develop website contents 	2019

h) Strengthening ASEANTOM institutional arrangements

S/N	Key Milestones/Deliverables	Timeline
1	Establish a set of Administrative Guidelines for ASEANTOM	2019

³ These countries could include (but are not limited to) Australia, China, South Korea, Japan.

IV. ADOPTION, REVIEW, MONITORING AND EVALUATION

8 The ASEANTOM Work Plan 2018 – 2022 was adopted by the 5th ASEANTOM Annual Meeting held in Singapore from 26 to 28 June 2018.

9 ASEANTOM will review and update the Work Plan regularly, including at its annual meetings, and monitor the progress and implementation of this Work Plan to evaluate achievements and address challenges.

Timeline of Action Programmes

Action Programmes	2018				2019		2020 - 2022
	1Q	2Q	3Q	4Q	1H	2H	
a) ASEANTOM-IAEA Regional Technical Cooperation Project RAS9077	<ul style="list-style-type: none"> Mar – Workshop on decision making and public comms (Singapore) 	<ul style="list-style-type: none"> Workshop on the use of IRMIS 	<ul style="list-style-type: none"> Jul – Workshop on emergency monitoring and international data sharing (Indo) Jul – Workshop on self-assessment of EPR (Phil) newly proposed to be in Oct 2018 	<ul style="list-style-type: none"> Oct – Workshop on implementation of decision making and public comms (M'asia) HBA⁴ to adjust regional protocol on public comms Group SV on radiation monitoring in Seoul, ROK (less advanced member states) 	<ul style="list-style-type: none"> Workshop on radiation monitoring (ASEAN) HBA to prepare a survey on capabilities related to early warning systems 	<ul style="list-style-type: none"> Expert workshop on technical requirements for radiation monitoring Dec – Final project meeting (Thai) Establish protocol for assessment and decision making, and regional public comms Define a concept for regional monitoring system Draft a concept for a follow up project 	
b) EC Follow-up Project 1: ASEAN-EU project on Enhancing Emergency Preparedness and Response in ASEAN: Technical	<ul style="list-style-type: none"> Feb – Kick off meeting and workshop on DSS and use of EPR (Thai) 		<ul style="list-style-type: none"> 2nd Workshop on the customisation of Decision Support Systems (Vietnam) 1-month on the job training (Belgium/Germany) 	<ul style="list-style-type: none"> Installation and basic training of DSSs in 6 participating countries Support given to remaining 4 States (in terms of equipment, trainings) 		<ul style="list-style-type: none"> Verification and testing of DSS tools by end users 	<ul style="list-style-type: none"> Q1 2020 - Trainings for DSS Q1 2020 - Table-top exercises Q2 2020 – Installation of DSS in remaining 4 ASEAN Member States Q2/3 2020 –

⁴ HBA stands for Home Based Assignment, will be led by IAEA, while the individual country hosts them.

Action Programmes	2018				2019		2020 - 2022
	1Q	2Q	3Q	4Q	1H	2H	
Support for Decision Making							Installation of DSS in regional centre <ul style="list-style-type: none"> Q4 2020 – Conduct exercises to demonstrate efficacy of training
c) EC Follow-up Project 2: ASEAN-EU on Enhancing Emergency Preparedness and Response in ASEAN: ASEAN Early Warning Radiation Monitoring Network (EWRMN) ⁵		<ul style="list-style-type: none"> Jun – Send proposal (Action Document – AD) to ASEANTOM for review and possible endorsement during 5th ASEANTOM Meeting 	<ul style="list-style-type: none"> Start preparation of ToR as soon as AD endorsed Viet Nam to complete discussion with EC on the proposed Xenon station. 	<ul style="list-style-type: none"> Develop and agree ToR at a technical level (Dec) via circulation 	<ul style="list-style-type: none"> May - Send to EU for approval ToR endorsed by ASEANTOM (Q1) Formal EU decision to include project in INSC 2019 programme (Q2) 	<ul style="list-style-type: none"> Start of the project Launch tender for project (Q3/4) 	<ul style="list-style-type: none"> Q1 2020 – Start of 2-year project Q1 2022 – ASEAN early warning radiation monitoring network established in ASEAN Q1 2022 – ASEAN data sharing platform established To build a Xe station in Hanoi
d) ASEANTOM-IAEA Regional on Strengthening Regulatory Capacities for Licensing, Inspection and Enforcement for the Security of	<ul style="list-style-type: none"> Jan – Consultancy Meeting (Vienna) Dec 2017 – Apr 2018: Review missions of Integrated Nuclear Security Support Plans (INSSPs) in Cambodia, 	<ul style="list-style-type: none"> Apr – Training course on licensing inspection for radiation material (Phil) Dec 2017 – Apr 2018: Review missions of Integrated Nuclear Security 	<ul style="list-style-type: none"> National training courses on nuclear security Jul – Pilot national training course on authorisation and inspection for the security of radioactive material and 	<ul style="list-style-type: none"> National training courses on nuclear security 	<ul style="list-style-type: none"> National training courses on nuclear security Technical Visits 	<ul style="list-style-type: none"> National training courses on nuclear security Technical Visits 	<ul style="list-style-type: none"> Q1 2020 – Regional Training Course Q2 2020 – Regional workshop on project closing

⁵ EC will submit concept proposal to seek ASEANTOM's interest in the project by Q2 2018.

Action Programmes	2018				2019		2020 - 2022
	1Q	2Q	3Q	4Q	1H	2H	
Radioactive Materials and Associated Facilities in Southeast Asia	Philippines and Vietnam	Support Plans (INSSPs) in Cambodia, Philippines and Vietnam	associated facilities (M'sia)				
e) ASEANTOM/NSA Exercise Development Training Series (EDTS)	-	-	-	-	TBC	TBC	TBC
f) SEANWFZ POA (2018 – 2022): Formalise relations between ASEAN and IAEA, through ASEANTOM as the focal point	<ul style="list-style-type: none"> Prepare zero draft of Practical Arrangements 	<ul style="list-style-type: none"> Apr-May – Consult ASEANTOM Members and sectoral bodies Jun – finalise text at ASEANTOM Meeting 	<ul style="list-style-type: none"> Jul-Oct – Discuss with IAEA text of Practical Arrangements and submit agreed document to ASEAN SOM 	<ul style="list-style-type: none"> Signing of Practical Arrangements by ASEAN and the IAEA 			
g) Enhancing International Profile and Linkages: Develop a formal ASEANTOM website as a subdomain under ASEAN website		<ul style="list-style-type: none"> June – ASEANTOM to agree to set up a new website through possible funding from the ASEAN Secretariat Operational Budget 	<ul style="list-style-type: none"> Prepare concept paper 	<ul style="list-style-type: none"> Oct – Singapore and Thailand to prepare and submit concept note for proposal to ASEAN Secretariat for approval 	<ul style="list-style-type: none"> Apr – Thailand and Singapore to develop website contents 	<ul style="list-style-type: none"> Start integration of ASEANTOM website as a subdomain of ASEAN website 	<ul style="list-style-type: none"> Formal website established
h) Strengthening ASEANTOM institutional arrangements: Establishing	<ul style="list-style-type: none"> Singapore to draft preliminary set of Administrative Guidelines 	<ul style="list-style-type: none"> Singapore to circulate draft Administrative Guidelines to ASEANTOM 	<ul style="list-style-type: none"> Submit Administrative Guidelines to ASEAN SOM 	<ul style="list-style-type: none"> Administrative Guidelines in place 			<ul style="list-style-type: none"> Review of Administrative Guidelines

Action Programmes	2018				2019		2020 - 2022
	1Q	2Q	3Q	4Q	1H	2H	
Administrative Guidelines for ASEANTOM		Member States					