

# RCARO 2024 Work Performance

## Highlights in RCARO's Activities in 2024

### 1. Host of the First **RCA Side-Event** during the 68th IAEA General Conference Meeting in September 2024



The first RCA side-event ever was held during the 68<sup>th</sup> IAEA General Conference Meeting in September 2024. This was a follow-up of the decision made at the 46<sup>th</sup> RCA NRM. With the efforts by the RCA Task Force coordinated by the RCARO, the event was successfully hosted under the title of "RCA: Advancing Sustainable Development in the Asia-Pacific Region", bringing together more than 100 delegates and experts to discuss and strategize on enhancing regional cooperation in nuclear science and technology across Asia and the Pacific.

Keynote speeches were delivered by Mr Rafael Mariano Grossi, Director General of the IAEA, Mr Sang-Im YOO, Minister of Science and ICT, Republic of Korea, and Mr Jing LIU, Vice Chairman of China Atomic Energy Authority.

This side event served as a dynamic forum for RCA stakeholders to discuss and share ideas on the RCA's contributions to socio-economic development across the Asia-Pacific region. Key topics included the contribution of RCA to socio-economic development, creating synergies between the RCA programme and IAEA initiative, and strategies for future partnerships.

### 2. Increasing Visibility through Holding **Special RCA Exhibition** at the IAEA Ministerial Conference in November 2024

Under the theme "Brining Prosperity to the Asia-Pacific: RCA", RCARO facilitated the preparations for the RCA exhibition in cooperation with the IAEA and GPs to showcase the

achievements of the RCA over the last 52 years. RCA promotional videos were demonstrated at the RCA booth and various RCA publications were distributed to the visitors, such as RCA brochure, newsletter and issue brief, RCA history and socio-economic impact assessment report of the RCA Programme. In addition, experts from CPR, MAL and PAK provided their support in operation of the RCA booth and promotion of the RCA at the conference, supported by RCARO.



The opening ceremony of the RCA exhibition was successfully held on 27th November with the participation of a big audience including IAEA Director General, RCA Chair, NRs and representatives of the RCA GPs, RCA experts and IAEA representatives. This event showed a strong engagement of the RCA GPs demonstrating a strong regional ownership and engagement and ensuring broader representation and reinforcing the collaborative spirit of the RCA. The exhibition surely increased the awareness and visibility of the RCA among the stakeholders and reconfirmed the role of the RCA in the regional prosperity and development.

### 3. Enhancing Regional Coordination through **Introductory Workshop for the New RCA NRs**



As recommended by the 45th RCA NRM, RCARO hosted “Introductory Workshop for New National RCA Representatives (NRs) on RCA Programme and Its Policy” on 22-25 July 2024 in Seoul, Korea, inviting 35 participants from 12 RCA GPs, the IAEA and RCA experts. The

workshop was successful in meeting its objective to support the newly appointed RCA NRs to enhance their understanding on the RCA Programme and its policy. The event was conducted hybrid to expand the participation of NRs and relevant experts.

The event served as a platform for knowledge exchange, strengthening regional collaboration. By familiarizing the new NRs with RCA policies and programmes, the workshop contributed to better alignment and coordination between RCA Government Parties, and is expected to contribute to facilitating smoother implementation of RCA projects and activities across the region.

#### **4. Launching of Partnership Project with the US DOE “Project on Supporting the Adoption of eBeam Technology and its Applications in Areas of Food and Agriculture, Industry, Human Health and Environment Treatment”**

A new partnership project on “Supporting the Adoption of eBeam Technology and its Applications in Areas of Food and Agriculture, Industry, Human Health and Environment Treatment” was successfully launched this year, under the partnership with the Office of Radiological Security (ORS), National Nuclear Security Administration of the US Department of Energy. This project spans the next five years with the objective of facilitating technology transfer, enhancing awareness, and promoting the adoption of eBeam technology in the Asia Pacific region as a safer alternative to radioactive isotope-based technologies, while improving industrial capabilities, environmental quality, and living conditions.

In 2024, the project was implemented according to the work plan set up in the Project Coordination Meeting held in December 2023. Two Expert Missions, one to Mongolia in October and the other to Cambodia in December, were carried out and two Hands-on Electron Beam Technical Workshops, one in April in Texas A&M and the other in December in Viet Nam were conducted, benefiting over 90 participants from the region.

The capacity building activities at national and regional level will serve as a crucial basis for the adoption and facilitation of the technology in the RCA.

## **2024 Work Performance Details**

### **1. Increasing the Awareness of the RCA**

#### **1.1 Host of RCA Side-event during the 68th IAEA GC**

At the 46th NRM, RCARO expressed its intention to host a side event during the 68th IAEA General Conference Meeting in September 2024. The Task Force comprising of PAK, KAM, INS, MAL, JPN, AUL, FIJ, MON, VIE, ROK, and CPR was formed to follow up.

As part of the 68th IAEA General Conference, the RCA side event was held on 17 September 2024, bringing together delegates and experts to discuss and strategize on enhancing regional cooperation in nuclear science and technology across Asia and the Pacific. This event, titled “RCA: Advancing Sustainable Development in the Asia-Pacific Region”, gathered over 100 participants including the representatives from the RCA Government Parties, the IAEA, RCARO and other organizations and countries outside the region.

Keynote speeches were delivered by Mr Rafael Mariano Grossi, Director General of the IAEA, Mr Sang-Im YOO, Minister of Science and ICT, Republic of Korea, and Mr Jing LIU, Vice Chairman of China Atomic Energy Authority.

This side event served as a dynamic forum for RCA stakeholders to discuss and share ideas on the Regional Cooperative Agreement’s (RCA) contributions to socio-economic development across the Asia-Pacific region. Key topics included the contribution of RCA to socio-economic development, creating synergies between the RCA programme and IAEA initiative, and strategies for future partnerships.

#### **1.2 Host of RCA Special Exhibition at the IAEA Ministerial Conference 2024**

At the request of the IAEA, RCARO drafted a plan to hold an RCA exhibition during the IAEA’s Ministerial conference\* scheduled in November and presented it to the 46th NRM. Upon approval of the meeting, RCARO finalized the exhibition concept including time/venue, exhibition theme, promotional contents, in consultation with the Task Force.

\* Ministerial Conference on Nuclear Science, Technology and Applications and the Technical Cooperation Programme on 26-28 November 2024, Vienna Austria

Under the theme “Brining Prosperity to the Asia-Pacific: RCA”, RCARO facilitated the

preparations for the RCA exhibition in cooperation with the IAEA and GPs to showcase the achievements of the RCA over 52 years. A total of 14 RCA GPs provided the RCA project activity information such as pictures and video clips to the RCARO for making RCA promotional materials. Based on the received materials, RCARO made two RCA promotional videos demonstrated at the RCA booth; RCA promotional video (revised from the RCA's 50<sup>th</sup> anniversary video) and RCA project activity video. RCARO also distributed various RCA publications to visitors, such as RCA brochure, newsletter, issue brief, RCA history and socio-economic impact assessment report of the RCA Programme. In addition, experts from CPR, MAL and PAK provided their support in operation of the RCA booth and promotion of the RCA at the conference, supported by RCARO.

The opening ceremony of the RCA exhibition was successfully held on 27<sup>th</sup> November with the participation of a big audience including IAEA Director General, RCA Chair, NRs and representatives of the RCA GPs, RCA experts and IAEA representatives.

### **1.3 Supporting RCA experts to outreach to the international community and forums**

RCARO has provided support for RCA experts for their promotion of the RCA at regional/international events under the Expert Support Programme. Due to the Covid-19 pandemic, the participation of the MAL selectee has been postponed until 2024. After the release of the travel restrictions, RCARO supported the selectee's participation and his RCA promotional activities at the 20th World Conference on Non-Destructive Testing held in May in Korea.

For 2025, RCARO received a total of 14 applications from 7 GPs. According to the guideline of the Programme, RCARO made a shortlist of the applicants for review by the RCARO SAC. Upon approval of the RCARO SAC and 53<sup>rd</sup> GCM, RCARO finalised the 3 selectees from AUL, IND and INS. RCARO will make the necessary arrangements to support the selectees in due course.

### **1.4 Provision of RCA information through the RCA Integrated Information System**

With the aim of providing a more comprehensive data service to the RCA, the RCARO established the Integrated Information System including the RCA Main Website, E-Campus, and Data Hub.

- **Provision of RCA Information**

At the 46<sup>th</sup> NRM, it was recommended that the RCA project information be archived at the IAEA PCMF while the other policy and RCARO managed project documents be stored at the RCA website. According to the recommendation, RCARO has continued collecting and providing information on the RCA policy related meetings and activities in cooperation with the IAEA, GPs and experts.

- **Development of Data-hub**

A “Data-Hub” is being developed to contribute to archive and provide diverse data related to the nuclear science and technology, such as policies, institutions/organizations, trends and news of the region. All the information will be retrieved from open sources, i.e., media, promotional websites, journals, etc. Progress of developing the platform was presented at the New NR Workshop in July to receive comments. Reflecting comments received at the workshop on the contents of the Data-hub, RCARO will upload relevant information in cooperation with the NRs.

## 1.5 Publications

- **RCA Newsletters**

RCARO published the 7<sup>th</sup> and 8<sup>th</sup> issue of the RCA Newsletters in May and September respectively. The newsletters featured articles on key outcomes of the RCA Policy Meetings (46<sup>th</sup> NRM, 53<sup>rd</sup> GCM), and RCA Projects (RAS7028, RAS6093, RAS6100, RCARP03), insights of the RCA experts on RCA Programme, regional cooperation in human health sector, nuclear science and technology status/activities of RCA Government Parties (GPs) and IAEA/RCA events as well as RCARO activities.

- **RCA Annual Report**

To support the IAEA’s role to publish the RCA annual report, RCARO provided assistance to the IAEA by preparing a draft annual report with the information received from the IAEA and the GPs. It contains information on the implementation of the RCA Programme, key policy decisions of the NR Meetings and achievements of the non-technical activities.

At the 45<sup>th</sup> NRM and 52<sup>nd</sup> GCM, there have been discussions on how to improve the RCA Annual Report as a valuable reference document for the RCA stakeholders, potential partners, and the public. RCARO prepared a draft of 2023 RCA Annual Report with enhancements suggested by the 52<sup>nd</sup> GCM, including revision of the structure, addition of graphical

representations and data as well as statements from the RCA Chair and senior IAEA officials and submitted it to the 46<sup>th</sup> NRM for review and comments of the NRs. Upon the confirmation of the IAEA, final version will be shared with the RCA GPs and uploaded on the RCA website.

- **Other Publications: RCA Issue Brief**

RCARO has published the ‘RCA Issue Brief’, with the aim to provide expert analysis and insights on topics that are relevant to the RCA and nuclear science and technology, to a wide audience including policy makers, experts and the general public.

The first Issue Brief entitled as “Theranostics, a New Innovative Approach to Cancer Treatment” was published in September and uploaded on the RCA website. Co-authored by the former Chair of ARCCNM (Asian Regional Cooperative Council for Nuclear Medicine) and an expert of KIRAMS, it focuses on theranostics which has made significant advance in precision medicine, particularly in the field of oncology. It covers diagnostic imaging and targeted therapy to treat diseases such as cancer with high specificity and efficacy. The Issue Brief was also distributed to the relevant stakeholders together with the RCA Newsletter to promote the RCA.

## **2. Addressing the needs of the Government Parties for development of the RCA**

### **2.1 Introductory Workshop for the New RCA NRs**

As recommended by the 45th RCA NRM, RCARO hosted an introductory workshop for the RCA NRs on overall RCA policy matters to enhance the understanding of the newly appointed NRs on the RCA Programme. It was held on 22-25 July 2024 in Seoul, Korea, inviting 14 RCA NRs, RCA Focal Person and RCA PAC (Chair and a member). The event was conducted hybrid to expand the participation of NRs and relevant experts. It was successfully completed meeting its objectives to enhance the understanding on the IAEA TC Programme, RCA framework and activities of the RCARO.

The event served as a platform for knowledge exchange, strengthening regional collaboration. By familiarizing the new NRs with RCA policies and programmes, the workshop contributed to better alignment and coordination between RCA Government Parties, and is expected to contribute to facilitating smoother implementation of RCA projects and activities across the region.

### **2.2 [EB Project] Implementation of RAS9092 “Strengthening the Capacity to Respond to Radiological Emergency of Category II and III Facilities in the RCA Region”**

RAS9092 on “Strengthening the Capacity to Respond to Radiological Emergencies of Category II and III Facilities in the Asia-Pacific region” was developed by the RCARO under the IAEA TC Programme. It aims to transfer knowledge and technology in establishing adequate emergency preparedness and response procedures for category II and III facilities, using a graded approach. Funded by the Korean Government, the project is to be implemented for five years from 2020 to 2024, with a one-year extension decided at the project coordination meeting in 2020 due to the difficulties in undertaking the planned activities resulting from the COVID-19 pandemic.

Fifteen (15) GPs, with ROK as the lead country, are participating in the project: AUL, BGD, KAM, IND, INS, MAL, MON, MYA, NEP, PAK, PHI, SIN, THA and VIE.

- **Regional Workshop on the Development of a National Radiation Emergency Plan (NREP)**

Regional Workshop on the Development of a National Radiation Emergency Plan (NREP) (including Hazard Assessment) was held on 25-29 March 2024 at the OAP, Thailand, attended by 28 participants from the IAEA and 13 participating countries. The workshop provided strategies for the development of a national radiation emergency plan, which will serve as an important basis for the implementation of follow-up expert missions under the project.

- **Expert Missions**

One Expert Mission to the Philippines was conducted by an expert facilitated by the IAEA. The mission is consisted of a five-day Home Based Assignment and a two-day virtual meeting to review and complete the draft National Radiation Emergency Plan prepared by the Philippines.

- **Final Review Meeting**

A Final Review Meeting was held on 11-12 December virtually as a completion of the project. The opening ceremony featured remarks from Mr Dae Ki KIM, director of the RCA Regional Office, Ms Khemphone Phaokhamkeo, Programme Management Officer, and Mr. Mousa Alkaltham, Technical Officer of the project. The Meeting brought together 14 participants including the Lead Country Coordinator (LCC) and National Project Coordinators (NPCs) and members of the National Project Team from 11 Government Parties-Australia, Bangladesh, Indonesia, Korea, Laos, Malaysia, Myanmar, Nepal, Philippines, Pakistan, and Thailand.

Over the two-day sessions, participants reviewed the progress and achievements of the project, particularly in enhancing Emergency Preparedness and Response (EPR) capabilities in the

region. Discussions also focused on identifying follow-up activities to address the remaining challenges of capacity-building efforts in the EPR field.

### **2.3 [RP02] Implementation of the RP on Air Quality and Environmental Impact Assessment of Industrial Activities in the Region**

With the aim of improving the quality of the environment by providing appropriate pollutant data to the researchers and relevant stakeholders, the project has been implemented during Phase 1 (2018-2020) and Phase 2 (2020-2023). Ten (10) GPs participated in the project: AUL, NZE, ROK as Agreement Holders and CPR, INS, MAL, MON, PAK, THA and VIE as Contract Holders.

Upon the completion of the project in 2023, RCARO, in cooperation with the Technical Officer (TO) of the project and INS Chief Scientific Investigator (CSI), has drafted an achievement report of the project elaborating the results and outcomes of the project at the national and regional level. After incorporating the inputs of the CSIs, RCARO published two versions of the report: a detailed report with full information and short one with summary of key achievements. Both reports were uploaded on the RCA website for access by relevant experts and the public.

### **2.4 [RP03] Implementation of the Research Project on Closing the Gap in Access to Radiotherapy in RCA**

To improve cancer planning and scale up radiotherapy services by providing evidence-based information on the radiotherapy services, the project was launched in 2022 and is to be implemented for three years until 2024. Six (6) GPs are participating in the project: AUL and PHI as Agreement Holders and INS, MAL, MON and THA as Contract Holders.

A Research Training Course on outcome assessment was held virtually on 19-20 February 2024, inviting over 50 participants including the CSIs and research team members of the participating countries, Technical Officer and relevant experts.

A Research Coordination Meeting was held on 6-8 May 2024 virtually, inviting 23 participants including the CSIs, Technical Officer and relevant experts. The meeting reviewed the progress/results of the research activities towards project completion in 2024. In conjunction with the meeting, a technical workshop on the outcome assessment was held to provide a more practical and advanced knowledge and guidelines for the research to carry out in 2024, following the workshop held in February 2024.

CSIs were requested to submit final reports for review by the relevant experts and Research Review Committee in December 2024. Incorporating the review by the experts/RRC, RCARO will make a final report of the project in early 2025.

## 2.5 Survey on Research Needs

As the RCARP03 is to be completed in 2024, RCARO reported to the 38<sup>th</sup> RCARO SAC and the 46<sup>th</sup> NRM its plan to launch new projects which will address the needs of the GPs under the framework of the RCARO Managed Projects. Upon the endorsement of the 46<sup>th</sup> NRM, RCARO called for proposals for new projects in early August. A dedicated online platform was developed for GPs to submit proposals by the end of 2024.

Upon receipt of the proposals, RCARO will make the necessary arrangements for review and selection of the received proposals in consultation with the RCA PAC, relevant experts and NRs according to the relevant guidelines. As recommended by the 46<sup>th</sup> NRM, projects will be developed taking into consideration of the ways to link them with the IAEA initiatives and the UN SDGs.

## 3. Empowering next generation in Nuclear Science and Technology in the RCA

### 3.1 Fellowship Programme

RCARO received in total 15 applications from 10 GPs, which marked a greater number of applications compared to the previous years. Responding to great interests and needs of the GPs, RCARO decided to expand the programme, selecting 5 applications instead of 2 which RCARO originally planned for the year 2024.

The applicants from FIJ, IND, INS, PHI and THA were selected based on the requirements needed for the programme, prior achievements and motivation of the applicants, giving consideration to national distribution.

Two fellows from IND and INS and the other two from FIJ and PHI have completed their fellowships for 2 months from June to July and October and November respectively. One fellow from THA will be invited for her fellowship from February to April 2025.

### 3.2 Scholarship Programme

Since 2003, RCARO has provided scholarships to support students from the RCA GPs in order to nurture the next generation of nuclear professionals in the RCA and to support the technical development of the region. Students participating in this programme are granted with scholarships for their Master's or Ph.D. studies, and opportunities to participate in national R&D projects to develop research competence, network with subject matter experts and gain hands-on experience at various Korean institutes/universities, such as KAIST, KINGS and UST.

\* KAIST: Korea Advanced Institute of Science and Technology

KINGS: KEPCO(Korea Electric Power Corporation) International Nuclear Graduate School

UST: University of Science and Technology

- **KAIST Master's Degree Programme**

KAIST is the first and top science and technology university in Korea, established in 1971 by the Korean Government to educate scientists and engineers.

The programme supports students for master's degree in Nuclear and Quantum Engineering for two years. Since 2003, a total of 41 students from 11 countries have received degrees. In 2024, three students are supported for their study in KAIST.

- **KINGS Master's Degree Programme**

KINGS is an educational institute specializing in Nuclear Power and Energy, established in 2012 to foster energy policy decision makers to respond to energy industry transformation and climate change. The programme is designed to produce energy policy makers and leaders who understand both theory and practice through lectures, practical training and exchange of experiences with fellow students from a variety of backgrounds including power companies and institutions.

It is a two-year programme for master's degree in Energy Policy and Engineering, under which the first year is spent studying in the KINGS and the second year for writing a thesis in applicant's home country. Since 2022, 4 students from 3 countries have received degrees. In 2024, three students are sponsored to study at KINGS.

- **UST Doctoral Degree or Integrated/ Master's Degree Programme**

UST is a science and technology graduate school jointly established by the Government-Funded Research Institutes (GFRIs) in Korea in 2004 to nurture future leaders in the fields of science and technology.

Among the 35 GFRI's which currently provide support functioning as Campus, this Programme cooperates with two campuses, namely, KAERI and KIRAMS, and its majors include Nuclear Science and Technology, Radiation Science, Nuclear and Radiation Safety, Artificial Intelligence, and Radiological & Medico-Oncological Sciences.

In 2024, one student was selected to study at UST in the spring semester and two students for the autumn semester.

\* KAERI: Korea Atomic Energy Research Institute

KIRAMS: Korea Institute of Radiological & Medical Sciences

### **3.3 Expansion of capacity building activities**

RCARO reported to the 38<sup>th</sup> RCARO SAC and the 46<sup>th</sup> RCA NRM its plan to expand the HRD Programme to provide more effective and systematic support to the RCA GPs in capacity building by introducing postdoctoral fellowship and on-the-job training, engaging relevant experts and institutes. RCARO conducted a survey of relevant universities and discussions with nuclear research institutes in Korea to identify the needs and feasibility of the programme. Based on the result of the survey and discussions, RCARO will develop and implement HRD activities to support the RCA GPs.

## **4. Enlarging the horizon of the RCA Programme through establishing partnerships**

### **4.1 [US DOE] Implementation of the “Project on Supporting the Adoption of eBeam Technology and its Applications in Areas of Food and Agriculture, Industry, Human Health and Environment Treatment”**

In the partnership with the Office of Radiological Security (ORS), National Nuclear Security Administration of the US Department of Energy, RCARO is implementing the “Project on Supporting the Adoption of eBeam Technology and its Applications in Areas of Food and Agriculture, Industry, Human Health and Environment Treatment” from 2024 to 2028. The First Project Coordination Meeting was held in December 2023, to which a total of twenty-one (21)\* RCA GPs were invited.

\* AUL, BGD, CPR, KAM, FIJ, IND, INS, JPN, ROK, LAO, MAL, MON, MYA, NZE, NEP, PAK, PHI, SIN, SRL, THA and VIE.

- **Participating at a Hands-on Electron Beam Technical Workshop in Texas A&M**

Thirteen(13) participants from the RCA GPs were invited to a hands-on workshop on the use of the eBeam technology which was held on 15-19 April at the National Center for Electron Beam Research (NCEBR) of Texas A&M University. In line with the overarching goal of the project to support the eBeam infrastructure building and facilitation of its applications, this workshop provided a comprehensive understanding of the principles and applications of eBeam and X-ray technologies to those countries who are planning to adopt the technology. During the workshop, participants had a chance to participate in the hands-on sessions where they can learn dose-mapping and get preliminary data on the products they bring from their home countries.

- **Implementation of Expert Missions to Mongolia and Cambodia**

According to the work plan, two Expert Missions were carried out in 2024: One in October to Mongolia and the other in December to Cambodia. Prior to the missions, the experts and the countries discussed that there are needs at national level to enhance the awareness of the various stakeholders to adopt the technology. In line with this, the expert missions focused on the successful host of national awareness seminars and meetings with various stakeholders from different sectors.

- **Host of Hands-on Regional Workshop on eBeam Applications in Ho Chi Minh City, Viet Nam**

Hands-on Regional Workshop on eBeam Applications was held from December 2 to 6 2024, in Ho Chi Minh City, Vietnam. Co-hosted by the Vietnam Atomic Energy Institute (VINATOM), the event brought together over 80 participants from 19 countries and featured over 18 presentations under the topics ranging from foundational principles of the technology to applications on various sectors.

A highlight of the workshop was introductory session on PUFFIn simulation software and the hands-on training at VINAGAMMA, where participants gained practical experience in dose mapping and other essential techniques.

Workshop sessions were complemented by engaging discussions that shared lessons learned and good practices across different countries and industries. This blend of theoretical and practical learning provided participants with actionable insights into adopting eBeam technology for socio-economic development.

#### **4.2 [ASEANTOM] Implementation of the “Project on Enhancing Emergency Preparedness and Response Capabilities in the ASEAN Region through Building Technical Capacity in Radiation Monitoring and Dose Assessment (Phase 2)”**

- **Online Workshop for Beginner Countries**

According to the work plan confirmed at the project coordination meeting in November 2023, an introductory workshop on in-situ radiation detection demonstration and basic gamma spectrometry technique for enhancing emergency preparedness and response capabilities, was held virtually from 20 to 21 February 2024, inviting around 50 participants from the region. The workshop provided basic lectures including introduction to equipment/detectors (including backpack), selection of sites for monitoring/sampling, basic gamma spectrometry etc.

- **Regional Training Course**

A Regional Training Course on practical application of radiation measurement, radioanalytical method for environment monitoring was held on 10-14 June 2024 in Bangkok, Thailand, with the aim to provide advanced theoretical and practical capacity on accurate radioactivity measurements for environment monitoring. The event was co-hosted with the Office of Atoms for Peace of Thailand and invited a total of 26 participants from the region.

- **Participation in the 11th Annual Meeting of ASEANTOM**

RCARO participated in the 11th Annual Meeting of ASEANTOM held in August 2024 in Laos, and presented the progress of the project and a plan to have a follow-up project starting in 2025, accommodating the regional needs on the advanced technology on radiation monitoring.

#### **4.3 [ARCCNM] Implementation of a Joint Workshop**

Since 2008, RCARO has been supporting the joint workshop with the Asia Regional Cooperative Council for Nuclear Medicine (ARCCNM) to train nuclear medicine physicians and scientists in developing and less developed Asian countries and to further promote regional cooperation to promote nuclear medicine in these countries.

In 2024, RCARO supported the trainees participating in the training on 1-2 November, in Korea and provided an opportunity for young professionals to present selected papers and receive training on the latest advances in nuclear medicine.

#### 4.4 [FNCA] Participation in FNCA Events

On behalf of the RCA, RCARO has been participating in the FNCA Coordinators Meeting to present the achievements of the RCA and promote cooperation between the RCA and the FNCA.

Representing the RCA, RCARO participated in the 24th FNCA Coordinators Meeting on 12-13 March 2024 in Tokyo, Japan, and delivered a presentation on the RCA activities and the progress of the RCA-FNCA cooperative activities.

### 5. Facilitating the better implementation of the RCA Programme

#### 5.1 Provision of support to the RCA Chair and policy meetings/activities

RCARO provides assistance to the IAEA in performing secretariat support and to the RCA Chair for coordination of various RCA activities. In 2024, RCARO assisted the RCA Chair and the IAEA in the preparation of the 46<sup>th</sup> RCA NRM and the 53<sup>rd</sup> GCM, specifically on the preparations of the background documents and meeting reports. In cooperation with the IAEA and GPs, the RCARO prepared a draft 2023 RCA Annual Report providing information on the implementation of the RCA Programme, key policy decisions of the NR meetings and achievements of the non- technical activities, and submitted it to the 46th RCA NRM for review and comments.

#### 5.2 Provision of Extra-Budgetary(EB) contribution to the IAEA

RCARO provided an extra-budget of \$70,000 to support the RCA activities implemented on the margins of 2024 IAEA General Conference and the Ministerial Conference and \$50,000 to support the effective implementation of the RCA Programme and projects in need of financial support.

### 6. Financial Report on “other cooperative activities”

Project Name	Budget (EUR)
RCARO Managed Projects(RCARP02,03)	36,740
US DOE Partnership Project	40,663
ARCCNM Partnership Project	26,257
<b>Total</b>	<b>103,660</b>

**Annex. Table of Activities, Timelines and Indicators for RCARO Projects/Activities in 2024**

#	Objectives	Activities	Timeline				Status
			Q1	Q2	Q3	Q4	
1	Increasing the awareness of the RCA	1.1 Host of RCA Side-event during the 68th IAEA GC					Completed <ul style="list-style-type: none"> <li>RCA Side-event hosted</li> </ul>
		1.2 Host of RCA Special Exhibition at the IAEA Ministerial Conference 2024					Completed <ul style="list-style-type: none"> <li>Exhibition at the IAEA Conference hosted</li> </ul>
		1.3 Supporting RCA experts to outreach to the international community and forums					Completed <ul style="list-style-type: none"> <li>Expert’s participation to 20th World Conference on Non-Destructive Testing supported</li> <li>Experts to be supported in 2025 selected</li> </ul>
		1.4 Provision of RCA information through the RCA Integrated Information System					Completed <ul style="list-style-type: none"> <li>Roles of RCA website and PCMF for archiving RCA information confirmed</li> <li>Comments of the NRs on the data hub reflected</li> </ul>
		1.5 Publications					Completed <ul style="list-style-type: none"> <li>RCA Newsletters and RCA Issue Brief published</li> <li>RCA Annual Report is being drafted and to be finalized after review by the IAEA/GPs</li> </ul>

2	Addressing the needs of the Government Parties for development of the RCA	2.1 Introductory Workshop for the new RCA NRs				Completed	<ul style="list-style-type: none"> <li>Workshop hosted in Korea</li> </ul>
		2.2 [EB Project] Implementation of RAS9092				Completed	<ul style="list-style-type: none"> <li>Regional Workshop on the Development of a National Radiation Emergency Plan (NREP) held</li> </ul>
						Completed	<ul style="list-style-type: none"> <li>Expert Mission to PHI conducted</li> </ul>
						Completed	<ul style="list-style-type: none"> <li>Online Final Review Meeting held</li> </ul>
		2.3 [RP02] Implementation of the RP on Air Quality and Environmental Impact Assessment of Industrial Activities in the Region				Completed	<ul style="list-style-type: none"> <li>Two versions of achievement report published</li> </ul>
		2.4. [RP03] Implementation of the Research Project on Closing the Gap in Access to Radiotherapy in RCA				Completed	<ul style="list-style-type: none"> <li>Online Research Training Course on outcome assessment held in February</li> </ul>
						Completed	<ul style="list-style-type: none"> <li>Online Research Coordination Meeting held in May</li> </ul>

						<ul style="list-style-type: none"> <li>CSIs' final reports submitted for review by Research Review Committee</li> </ul>
		2.5. Survey on research needs				<p>Completed</p> <ul style="list-style-type: none"> <li>Call for proposals conducted</li> <li>Platform for proposals on the website developed</li> </ul>
3	Empowering next generation in Nuclear Science and Technology in the RCA	3.1. Fellowship Programme				<p>Completed</p> <ul style="list-style-type: none"> <li>Five fellows (FIJ, IND, INS PHI, THA) selected for fellowships in the RCARO</li> </ul>
		3.2 Scholarship Programme				<p>Completed</p> <ul style="list-style-type: none"> <li>Nine students granted scholarships</li> </ul>
		3.3 Expansion of the capacity building activities				<p>Completed</p> <ul style="list-style-type: none"> <li>A survey and discussions with relevant universities and institutes in Korea conducted</li> </ul>
4	Enlarging the horizon of the RCA Programme through establishing partnerships	4.1 [US DOE] Implementation of the "Project on Supporting the Adoption of eBeam Technology and its Applications in Areas of Food and Agriculture, Industry, Human Health and Environment Treatment"				<p>Completed</p> <ul style="list-style-type: none"> <li>Experts to the Hands-on Electron Beam Technical Workshop in Texas A&amp;M invited</li> </ul>
						<p>Completed</p> <ul style="list-style-type: none"> <li>Expert Missions to Mongolia and Cambodia implemented</li> </ul>

						Completed	<ul style="list-style-type: none"> <li>Hands-on Regional Workshop on eBeam Applications held in Ho Chi Minh City, Viet Nam held</li> </ul>
		4.2 [ASEANTOM] Implementation of the “Project on Enhancing Emergency Preparedness and Response Capabilities in the ASEAN Region through Building Technical Capacity in Radiation Monitoring and Dose Assessment (Phase 2)”				Completed	<ul style="list-style-type: none"> <li>Online Workshop for Beginner Countries hosted</li> </ul>
						Completed	<ul style="list-style-type: none"> <li>Regional Training Course held in Korea</li> </ul>
						Completed	<ul style="list-style-type: none"> <li>Participated in the 11th Annual Meeting of ASEANTOM</li> </ul>
		4.3. [ARCCNM] Implementation of a Joint Workshop				Completed	<ul style="list-style-type: none"> <li>Joint Workshop held in Korea</li> </ul>
		4.4 [FNCA] Participation in FNCA Events				Completed	<ul style="list-style-type: none"> <li>Participated in the FNCA Coordinators Meeting</li> </ul>
5	Facilitating the better implementation of the RCA Programme	5.1 Provision of support to the RCA Chair and policy meetings/activities				Completed	<ul style="list-style-type: none"> <li>Supported the RCA Chairs’ Committee, 46<sup>th</sup> NRM, 53<sup>rd</sup> GCM and other policy meetings</li> </ul>
		5.2 Provision of Extra-Budgetary (EB) contribution to the IAEA				Completed	<ul style="list-style-type: none"> <li>Contributed EB \$120,000 to support the RCA Programme</li> </ul>