

ANNEX 4 - RCARO 2017 WORK PERFORMANCE

1. Increasing the awareness of RCA

1.1 Enhancing RCA information service through the RCA Website

RCARO has continued its efforts to further enhance the RCA website operation with a view to making it a hub for an information flow within the RCA community.

During the past 6 years since its renewal in 2011, a number of menus, resource documents and functions have been added to the RCA website to accommodate the needs of the GPs. For effective information management and improving technical compatibility, RCARO made an overall upgrade of the website including design, storage and software in a more user-friendly manner.

1.1.1 Updating data on the RCA and RCA projects

Supported by the RWAs, RCARO updated the data on RCA and its activities: meetings (NRM, GCM), RCA projects, and news of the RCA and RCA Government Parties. According to the decision of the 39th NRM, RCARO developed a platform for uploading pre-concepts for 2020-2021 RCA Programme on the RCA website for sharing them amongst the GPs (<http://www.rcaro.org/concept>). GPs were duly informed with the uploaded pre-concepts by the RCARO. RCARO also received resource documents for the first round project concepts for the 2020-2021 RCA Programme from the RCA Programme Advisory Committee (PAC) and uploaded them on the RCA website for the GPs (<http://www.rcaro.org/projectdocs/articles/view/tableid/pdc/id/2953>).

1.2 Participation in regional/international events and support for the promotion of RCA activities

RCARO continued its efforts to fulfill its mandate by promoting RCA to target audiences at appropriate occasions through presentations and exhibitions as well as providing support to RCA experts participating in such promotional activities.

1.2.1 Presentation and exhibition on RCA/RCARO activities to target audiences

Upon approval of the 45th GCM, RCARO participated in the following events in 2017;

- International Conference on the IAEA Technical Cooperation Programme: Sixty Years and Beyond – Contributing to Development, 30 May – 1 June 2017, IAEA, Austria
- World Nuclear & Radiation Expo, 7-9 June 2017, Seoul, Korea
- Asia-Pacific Ministerial Summit on Environment, 5-8 September 2017, Bangkok, Thailand

In those events, RCARO set up a booth displaying banners on the RCA and its activities, distributed RCA brochures, Success Stories and demonstrated RCA promotional video for promotion of the RCA.

At the request of the IAEA, RCARO participated in the Asia-Pacific Ministerial Summit on Environment held on 5-8 September 2017 in Bangkok, Thailand to promote the RCA. RCARO set up a booth displaying posters on overall RCA and RCA projects in Environment sector, demonstrated the updated RCA activity video and distributed RCA promotional materials such as RCA brochures and Success Stories.

For 2018 plan, RCARO conducted a survey of NRs and IAEA and collected information on 15 conferences. Amongst the events, the 46th GCM approved the following two conferences for RCARO's participation in 2018:

- 12th Congress of the World Federation of Nuclear Medicine and Biology, 20-24 April 2018, Melbourne, Australia
- Global South- South Development Expo, October, 2018, venue to be decided

In consideration of its budget availability and schedule, RCARO will make necessary arrangements for its participation to the conferences listed above.

1.2.2 Promotion of the RCA on the occasion of the International Conference on the IAEA Technical Cooperation Programme

On the occasion of its 60th anniversary, IAEA held the International Conference on the Technical Cooperation Programme: Sixty Years and Beyond-Contributing to Development on 30 May-1 June 2017 in IAEA, Austria.

Followed by the RCA exhibition at the 60th IAEA General Conference in 2016 organized by the RCARO, the 45th GCM recommended RCARO to participate in the event to represent the RCA.

In consultation with the RCA FP, RCARO submitted a booth application form to the IAEA with detailed information on the arrangements of the RCA exhibition. RCARO secured a space of 6m² (3x2m) in Rotunda and displayed a panel on the achievements and impact of TC Programme in the RCA Region specifically in the Agriculture, Human Health and Industrial sector. With the support of the GPs, RCARO showcased sample products resulted from the past RCA projects and distributed RCA brochures and Success Stories to visitors. RCARO also demonstrated the RCA activity video at the RCA booth.

An opening ceremony was held on 30 May 2017 at the RCA booth inviting the Deputy Director

General of the IAEA, RCA Chair and many other stakeholders from the GPs and IAEA. Including the Director General of the IAEA, there were over 300 visitors to the RCA exhibition.

In addition, upon the request by the IAEA, the Director of the RCARO participated in the Plenary Session 3: Taking a Regional Approach- Cooperation on Common Development Issues as a panelist. He presented the RCA promotional and partnership activities which led successful resource mobilization in forms of the UNDP/UNOSSC partnership projects and RCARO Managed Projects and its role of coordinating between the RCA GPs, IAEA and other UN Agencies to address technological and financial gap of the region.

1.2.3 Supporting RCA experts for increasing awareness of RCA

RCARO has provided support for the RCA experts in their activities which could enhance awareness of the RCA and its activities.

For the cycle from September 2016 to August 2017, RCARO successfully supported 4 selectees from BGD, INS, THA and VIE for their participation in international conferences to promote the RCA activities.

For the next cycle, RCARO invited GPs for nominations of appropriate experts and received a total of 24 nominations from 8 GPs (BGD, INS, MAL, NEP, PHI, SRL, THA, VIE). According to the guideline, RCARO selected 2 selectees from MAL and INS in consultation with SAC. RCARO will make necessary arrangements to support the selectees for their RCA promotional activities in 2018.

2. Expanding support for the benefit of the Government Parties and development of RCA

2.1 Implementation of RAS6083

Upon approval of the 43rd GCM on developing a pilot project, RCARO, as the LCC of the project, developed and finalized a project proposal entitled “Improving patient care and enhancing Government Parties capacity in nuclear medicine programs in RCA region”. The project is approved and classified as RAS6083 and is to be implemented for 3 years from 2016 funded by the Korean Government.

2.1.1 Implementing expert missions

Based on the work plan, 5 expert missions to BGD, PHI, INS, MAL and THA were carried out, engaging 8 experts in the requested fields. The expert mission to KAM had been rescheduled to

the 3rd quarter of 2018 due to delay of construction of a medical center.

The materials of the expert missions provided by the respective NPCs were uploaded on the project platform on the RCA website.

2.1.2 Conducting a regional workshop and progress review meeting

With the support of the Government of Vietnam, a project review meeting combined with a workshop on Theranostics was held on 20-24 February 2017 in Hanoi, Vietnam, inviting LCC, NPCs, PMO and TO and local experts in nuclear medicine.

The meeting reviewed the progress made in 2016, confirmed detailed activities of 2017 and also shared information on Theranostics applying nuclear medicine techniques. Meeting report and presentations were uploaded on the project platform on the RCA website.

Additionally, requested by the participating countries at the project coordination meeting, RCARO is in the process of developing an e-learning module on Theranostics, in consultation with the TO of the project. The module is expected to be completed in the first quarter of 2018.

Decided at the progress review meeting, a regional training course on Theranostics and Dementias was held on 4-8 December 2017 in Osaka, Japan for 23 participants from participating countries. The training course was accredited by the European Accreditation Council for Continuing Medical Education (EACCME) which provided a great opportunity for participants not only to enhance expertise in nuclear medicine but also receive international recognition for participation in the training.

2.1.3 Submission of progress report

In line with the guidelines and operating rules of the RCA, RCARO, as the LCC, received NPC reports from participating countries and will submit Project Progress Assessment Report (PPAR) to the IAEA in January 2018. Summary of the 2017 activities will be presented at the 40th NRM in 2018.

2.2 Implementation of the RCARO Managed Projects

Aiming to benefit the GPs and development of the RCA, RCARO submitted a strategic paper to the 36th NRM in 2014, proposing new initiatives to meet the needs of the GPs and supplement the RCA Programme.

A Working Group on the RCARO' future role was established to discuss on this initiatives and

through discussions and deliberations, the WG established detailed procedures and guidelines on the possible options for the RCARO's future role such as Supplementary Projects, Research Projects and Training Projects under the framework of the RCARO Managed Projects.

The 38th NRM in 2016 endorsed the integrated approach, procedure and implementation of the RCARO Managed Project for 2016/2017 recommended by the WG, one of which is implementation of a Research Project(RP).

2.2.1 Implementing a Research Project

For implementation of a RP in 2017, RCARO conducted a survey of NRs in the fourth quarter of 2016 and found that "Environment" was the most common area of interest. Based on the survey result, RCARO invited RCA GPs to submit RP theme proposals in the area of Environment and received 7 proposals from 5 GPs (BGD, INS, MAL, PHI and VIE).

The received RP theme proposals were tabled at the 39th NRM and the meeting decided that all 7 proposals would be forwarded to the Research Review Committee (RRC) for its review. According to the procedure, the RCA PAC took the role as the RRC assisted by technical experts in the relevant area.

For review of the proposals, the 24th SAC recommended engaging 2-3 experts in the relevant area from the RCA region and/or IAEA to enhance technical review and provide inputs to the RCA PAC. Against this, RCA FP provided a list of experts in the relevant field of research and experience. With the input of the experts, the RRC provided a report to the RCARO on its review on the proposals.

The RRC's evaluation report which was supplemented with RCARO's advice on the budget availability, was considered by the SAC. Based on the recommendations and comments of the RRC, the SAC recommended that the concept on the Air Pollution from INS to be forwarded for further improvement and approval by the 46th GCM.

The review result by the RRC and the recommendation of the SAC were also forwarded to the countries submitted the proposals for their reference. Reflecting comments of the RRC, a refined INS proposal was tabled at the 46th GCM and approved as the Research Project Theme (RPT) of the RCA RP.

In addition, the RRC made some recommendations taking account of lessons learned through

implementing activities under the current procedure for development of a RP. One of them was to revise the current procedures not to proceed with technical review of the proposals that do not meet key compliance requirements. In this connection, RCARO and the Chair of the RCA PAC made a revision of the procedure to reflect RRC's recommendations. The revised procedure was also presented to the 46th GCM and it was approved for future arrangements of RPs.

As a follow up, RCARO invited GPs for submission of research proposals related to the approved Research Project Theme (RPT) on "Air Quality and Environmental Impact Assessment of Industrial Activities in Asian region". A total of 11 RCA GPs submitted research proposals to the RCARO: AUL, BGD, INS, ROK, MAL, MON, NEP, NZE, PAK, PHI and SRL. According to the approved procedure, RRC reviewed the proposals based on their technical merits, compatibility with the RPT and capacity to conduct the proposed research and provided a report which confirmed participation of the following 10 GPs: 3 as agreement holders (AUL, NZE, ROK), 7 as contract holders (BGD, INS, MAL, MON, NEP, PHI and SRL).

The project will be implemented for 3 years from 2018 to 2020 in consultation with the RRC. The first research coordination meeting will be held in the 2nd quarter of 2018.

2.3 Supporting the IAEA for RCA administrative matters

The 45th GCM agreed that the IAEA be assisted by the RCARO in its secretariat functions such as preparation of the RCA policy meetings and coordination of WG activities.

To facilitate the RCARO's assistance to the IAEA on its secretariat functions, the IAEA and RCARO have signed Practical Agreements on 14 September 2017 at the IAEA.

2.3.1 Providing support for RCA policy meetings

RCARO has provided support to the IAEA in preparation and coordination of the 39th NRM and the 46th GCM including preparation of agendas and background documents through close consultation with the IAEA, RCA Chair and RCA GPs.

2.3.2 Providing support for the WGs for execution of the RCA MTS 2018-2023

According to the decision at the 45th GCM, RCARO assisted the IAEA and Chairs of the WGs for the execution of the RCA MTS 2018-2023 in coordinating the joint WG Meeting held in February in the IAEA Headquarters, Vienna.

Recommended by the 39th NRM to host a joint meeting for WGs on Human Resource Development and MTS 2018-2023 Coordination, RCARO organized a meeting from 31 July to

2 August 2017 in Seoul, Korea.

3. Enhancing and exploring partnerships with regional/international organizations

3.1 Implementation of the RCA/UNOSSC project on Electron Beam (EB) applications

RCA/UNOSSC project on electron beam applications (Phase 1) was implemented from 2013 to 2015 with the aim of promoting and disseminating the use of electron beam applications in the region. Considering the continuous needs and demands of participating countries, a proposal for RCA/UNOSSC project (Phase 2) was submitted to the UNOSSC and was approved for the implementation for three years, 2017-2019, with a total budget of US\$500,000.

The project (Phase 2) aims to scale up the capabilities of participating countries in application of electron beam technologies in the areas of food irradiation, advanced material and environment treatment and to strengthen the expert network through regional training courses, expert missions and review meetings.

3.1.1 Holding a project coordination meeting of the RCA/UNOSSC project on electron beam applications

According to the work plan, a project coordination meeting was held on 10-11 May in Phuket, Thailand, with the support of the Government of Thailand. The meeting invited 24 participants from 15 participating countries, UNOSSC and RCARO. Each country's development status on the technology was presented and analyzed at regional level in order to set a strategic plan for the project. The meeting reviewed and agreed on the details of the project work plan 2017-2019, specified contents and qualifications of trainees for regional training courses, and target countries for six expert missions to be held.

3.1.2 Conducting a regional training course

RCA/UNOSSC Regional Training Course in Advanced Knowledge and On-site Training on Electron Beam Applications for Degradation of Environmental Pollutants in the Asia Pacific region was held from 13 to 21 July 2017, inviting 14 trainees from 13 participating countries. The course provided advanced knowledge and experimental experiences on the subject through lectures and hands-on training. The survey taken after the RTC showed that the course has achieved its objectives with 85% of satisfaction.

3.1.3 Implementing expert missions

Expert Missions to MYA and MAL were held; MYA in August in the areas of industry and

environment, and MAL in November in the areas of agriculture and environment, respectively. Experts from the region were dispatched to the countries to give consultations to relevant personnel on building human and institutional capacities and to deliver lectures to local experts.

3.1.4 Submission of progress/financial reports

Upon the rules and regulations of the UNOSSC, quarterly financial reports and yearly progress report have been submitted.

3.2 RCARO/ARCCNM training workshop

Since 2008, RCARO has been supporting the RCARO/ARCCNM training workshop to educate nuclear medicine physicians and scientists in developing and less developed Asian countries and further to foster regional cooperation to promote nuclear medicine in those countries.

In 2017, RCARO continued to support the training course held from 4 to 6 October in Yokohama, Japan.

3.3 Participation in the 18th FNCA Coordinators meeting

On behalf of the RCA, RCARO participated in the 18th FNCA Coordinators Meeting held on 7-8 March 2017 in Tokyo, Japan to discuss cooperative matters between the RCA and FNCA. Representing the RCA, Director of RCARO presented the achievements of the RCA and cooperative activities with the FNCA in 2016.

4. Assisting the Government Parties in addressing regional and national needs

4.1 RCARO/KAIST Nuclear Engineering Master's Degree Course

With the aim of assisting the Government Parties in capacity building related to nuclear science and technology, Nuclear Engineering Master's Degree Course was initiated by the RCARO in cooperation with the Korea Advanced Institute of Science and Technology (KAIST). Since 2003, 29 students from the GPs had been supported by the programme. After 14 years of its implementation, RCARO organized the first alumni workshop on 15-16 November 2017 in Da Nang, Vietnam, inviting former participants of this programme to provide an opportunity to share the experience after the degree and develop an alumni network.

This year, a total of five students have been supported by the programme, three from INS and one each from BGD and VIE.

4.2 RCARO/KAERI regional training workshop

Since 2008, RCARO has been hosting a regional training workshop in cooperation with Korea Atomic Energy Research Institute (KAERI). In 2017, an introductory workshop on radiation technology and its applications was held from 23 October to 3 November, inviting 17 trainees from 13 RCA GPs.

4.3 IAEA/RCARO/KINS joint training course on radiation safety for countries with limited radiation safety infrastructure in the region

As the countries at the beginning stage in applying radiation technologies have become new members of the RCA, there have been demands for safety training for better usage of the radiation technologies in the region. Followed by the regional training course on organization and implementation of a national regulatory programme for the control of radiation sources held in 2016, RCARO, in cooperation with the IAEA and Korea Institute of Nuclear Safety (KINS), hosted a joint Regional Training Course on Safety Regulation of Radioisotopes and Emergency Preparedness from 12 to 16 June in Daejeon, Korea.

This course was held in conjunction with a training course for Arab Network of Nuclear Regulators, Asian Nuclear Safety Network and Forum of Nuclear Regulatory Bodies in Africa, with the aim of contributing to building up competence and expertise of personnel in preparing for any operational emergency that could result in radiological hazard to the public and the environment. A total of 27 participants were trained, amongst which 10 were from the RCA GPs and supported by the RCARO. The result of the course questionnaire showed that 91% of the participants were satisfied with overall curriculum and facilities.

4.4 RCARO/KIRAMS training course on radiation safety in nuclear medicine and radiation therapy

To address regional technological and capability gaps on radiation safety in nuclear medicine and radiation therapy, RCARO organized two training courses on radiopharmaceuticals and radiation therapy in cooperation with KIRAMS.

The regional training course on the safety of cyclotron based radiopharmaceuticals was held on 10-14 July 2017 in Seoul. A total of 14 experts (BGD, INS, IND, KAM, MAL, MON, MYA, NEP, PAK, PHI, SIN, SRL, THA and VIE) participated in the training course and were trained with information on safe production of radioisotope and synthesis of radiopharmaceuticals.

According to the test conducted before and after the training course, the participants showed 40%

increase of scores on understanding of the topics. And 92% of the participants were satisfied with the course organisation, programme and personal and institutional benefit to strengthen the level of related expertise.

The training course on the safety of radiation therapy was held on 16-20 October 2017 in Seoul, Korea, inviting 13 medical physicists from 13 GPs. Participants were trained with lectures and technical visits on safe treatment and risk management of radiation therapy.

5. Other activities

5.1 Participation in the RCA policy related meetings

RCARO participated in the RCA policy related meetings including the 39th NRM in April and the 46th GCM in September and made presentations on the RCARO activities. RCARO also served as a secretariat for the RCARO SAC meetings prior to the meetings above.

5.2 Participation in the WG meeting on resource mobilization

As a member of the WG on financial gap analysis and resource mobilization, RCARO participated in the joint WG meeting on execution of the RCA MTS 2018-2023 on 13-16 February 2017 and shared views on the issues discussed.

5.3 RCARO Fellowship Programme

Three fellows from NEP, PAK and LAO were invited to participate in the 2017 RCARO Fellowship Programme. They have contributed to collecting information on regional and international events; assisting the implementation of joint training courses with KIRAMS and KAERI; and updating data on the website.

5.4 Provision of Extra-Budgetary (EB) contribution

RCARO made an extra-budgetary contribution of US \$100,000 to support the project RAS6083.