

ANNEX 4 - RCARO 2016 WORK PERFORMANCE

1. Increasing the awareness of RCA

1.1. Publicity activities for increasing the awareness of RCA

1.1.1. Publication of the 6th batch of RCA success stories

According to the revised guideline approved by the 37th RCA NRM, the 38th RCA NRM agreed that two success stories be published from projects which had been successfully completed between 2013 and 2014: one success story from RAS 1012 on industry, and one combined success story from RAS 6064 and RAS 6066 on medical sector.

Based on the approved procedure and timeline, RCARO, in cooperation with the LCCs of RAS1012, RAS6064 and RAS 6066, completed the drafts and circulated them to the NRs, the LCCs, the RCA-FP and relevant experts for their review. Reflecting the comments from the NRs, the drafts were revised and progressed into a full designed version and were circulated at the 38th RCA NRM for NRs' approval.

Upon approval of the 38th NRM, the RCARO published the Success Stories in leaflet form and distributed to relevant stakeholders. Copies will be also handed out at appropriate occasions.

1.1.2 Updating RCA promotional video

Since its production in 2011, the RCA promotional video has been used effectively at the regional/international events to promote the RCA and its activities and also in the GPs for their promotional uses at national level.

The RCARO updated the video reflecting changes of NRs from BGD, FIJ, INS, ROK, LAO, NEP, PAK, PHI, PLW and SIN.

In addition, the RCARO produced a short video clip on recent RCA activities with support of the IAEA and RCA GPs such as AUL, BGD, CPR, IND, INS, JPN, MAL, NEP, PHI, PAK, ROK, SRL, THA and VIE. The video contains information on RCA policy meetings (NRM and GCM), RCA projects in 4 thematic areas; Agriculture, Environment, Human Health and

Industry as well as RCARO.

The RCA promotional video and video clip were demonstrated at the RCA booth on the occasion of the 60th Anniversary of the IAEA and received much attention of the audiences.

1.2 Enhancing RCA information service through the RCA Website

The RCARO has continued to enhance the RCA information service through maintaining and updating the information on RCA and its activities on the RCA website.

1.2.1 Enhanced web service with improved access system

Since its renewal in July 2011, the RCARO has provided RCA information service through the RCA website, providing up-to-date information on the RCA and a platform for communication and information sharing among users.

To enhance the RCA web information service, the RCARO presented a working paper to review and identify means to improve the current RCA information service at the 37th NRM for consideration of the NRs. Upon approval of the 37th NRM, the RCARO held an expert meeting on establishment of guidelines for enhancement of the RCA information service on 15-16 June 2015 Busan, Korea and the meeting made recommendations and developed guideline on designation of RCA Web Administrator (RWA) in each GP, efficient provision of RCA information by the IAEA and the GPs and making a public version of the RCA Annual Report to be uploaded on the RCA website. As the recommendations and guidelines were approved by the 44th GCM, the RCARO carried out the follow-up actions as follows.

For designation of RWAs, the RCARO received nominations from 16 GPs and the IAEA. To facilitate the activities of the RWAs, the RCARO developed a platform named 'RWA Corner' on the RCA website and a manual to guide the RWAs for their management of the corner.

IDs and PWs together with the manual were distributed to the RWAs for their access to the corner and creation of accounts for national stakeholders.

The RCARO also published the 2015 RCA Annual Report for public according to the guideline and uploaded it on the RCA website where it can be viewed or downloaded by the public freely.

1.2.2 Updating data on the RCA and RCA projects

The RCARO has updated information on the RCA and RCA projects; policy meetings (NRM, GCM), RCA projects, news of the Government Parties and related policy documents on the website.

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

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

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

Upon approval of the 44th GCM, the RCARO participated in the following events in 2016:

- The 20th Pacific Basin Nuclear Conference on 5-9 April 2016, Beijing, China
- International Conference on Nuclear Science and Technology in August 2016, Bangkok, Thailand

In those events, the 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.

The RCARO also supported RCA Government Party's promotional activities by providing relevant materials: the 46th Scientific Meeting of the ANZSNM in April 2016, Rotorua, New Zealand; National Conference on Nuclear Science & Technology and Atomic Energy Applications and the 2nd National Conference on Medical Physics held in October 2016, Viet Nam.

To commemorate the 60th Anniversary of the IAEA, the 38th NRM recommended RCARO to seek opportunities to participate in the General Conference taking note of the successful

exhibition of the 40th Anniversary of the RCA carried out by the RCARO in 2012. In this regard, RCARO made a proposal for an exhibition and submitted an official request for the space to the IAEA in consultation with the RCA FP and the RCA Chair.

A space of 10 square meters (2mx5m) in the hallway to the C building was allotted by the IAEA. The RCARO set up a booth and displayed 4 posters on overall RCA, RCA activities in four thematic sectors: agriculture and environment, human health and industry and Success Stories and Partnership projects respectively. A short video clip on the recent RCA activities was also produced based on the data provided by the RCA GPs and presented at the booth. With support of the GPs, RCARO showcased sample products of the past RCA projects and distributed RCA brochures and Success Stories as well as some souvenirs to visitors.

For 2017 plan, the RCARO conducted a survey of NRs and the IAEA and collected information on 6 conferences. Amongst the 6 events, the 45th GCM approved the following two conferences for RCARO's participation 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, September 2017, Seoul, Korea

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

1.3.2 Supporting RCA experts for increasing awareness of the RCA

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

For the cycle from September 2015 to August 2016, the RCARO successfully supported selectees from VIE and INS for their participation and RCA promotional activities at the international conferences held in May and July 2016 respectively.

With regards to the cycle from September 2016 to August 2017, the RCARO invited the GPs for

nominations of appropriate RCA experts and received a total of 9 nominations from 5 countries (BGD, INS, PHI, THA and VIE). According to the guideline, RCARO selected 4 selectees from BGD, INS, THA and VIE in consultation with the SAC. The RCARO will make necessary arrangements to support the selectees for their RCA promotional activities in 2017.

2. Expanding support for the benefit of the GPs and development of the RCA

2.1 Implementing the pilot project

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

2.1.1. Implementing project coordination meeting

With the support of the Korean Government, the RCARO hosted the First Coordination Meeting held on 11-15 April 2016 in Gwangju, Korea inviting 29 participants from 16 participating GPs, PMO and TO from the IAEA. The meeting reviewed the current status of Nuclear Medicine in participating countries and set detailed work plan for 2016-2018. A total of 13 expert missions to 11 countries by 25 experts in the areas of oncology, cardiology and neurology and 3 regional meetings combined with technical workshops are to be implemented under the project.

According to the decision of the meeting, the RCARO established a corner on the RCA website for the project to share information and facilitate communication and expert networking amongst project participants (<http://www.rcaro.org/RAS6083>).

Meeting documents were uploaded on the corner and the RCARO will continue uploading project related materials used during expert missions, training courses and workshops. Access information to the corner is given to all related stakeholders for their utilization of the project materials.

2.1.2. Implementing expert missions

According to the work plan, 3 expert missions (EMs) focusing on the requested thematic areas were implemented in 2016; CPR in October, MYA in November and PAK in December. The EMs were conducted in conjunction with national conferences and experts transferred skills and knowledge to local nuclear medicine practitioners and related experts in the field. There were also discussions and scientific meetings with referring doctors to facilitate appropriate use of diagnostic and therapeutic nuclear medicine for treatment of cancer.

2.1.3. Conducting regional workshop and progress review meeting

Progress review meeting and regional workshop will be held on 20 - 24 February 2017 in Hanoi, Viet Nam based on the work plan and decision of the project coordination meeting.

2.1.4. Monitoring and submission of progress report

In line with the guidelines and operating rules of the RCA, the RCARO, as the LCC, received NPC reports from participating countries and submitted Project Progress Assessment Report (PPAR) to the IAEA. Summary of the 2016 activities will be presented at the 39th NRM in 2017.

2.2. Developing new RCARO initiated programme

Aiming to benefit the GPs and development of the RCA, the 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's 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 endorsed the integrated approach, procedures and implementation of the RCARO Managed Projects for 2016-17 recommended by the WG on RCARO's future role.

2.2.1 Developing new RCARO initiated programme

As it was endorsed at the 38th RCA NRM that in 2016 the RCARO Managed Projects

commence with a Training Project (TP), specifically on the topic of informing the new RCA GPs about the RCA programme, policy, procedures and related matters, an introductory workshop for new RCA GPs on the RCA programme and its policy was held on 23-25 November 2016 in Coral Coast, Fiji. The Workshop was attended by 23 participants from new RCA GPs, the RCA-FP, representatives from the Ministry of Foreign Affairs of Fiji, and representatives from international organizations based in Fiji.

The Workshop provided comprehensive information on the IAEA/RCA programme and its policy for new RCA GPs. The Workshop also provided a forum for the participants to discuss on the development of possible future RCA projects/programmes.

2.3. Supporting the IAEA for RCA administrative matters

The lack of financial and human resources in the IAEA for RCA related matters has been noted in recent years. At the 44th GCM, the IAEA again presented its challenges in staffing and after discussions, the meeting suggested to discuss this issue at the 3rd Working Group meeting in connection with the RCARO's future role.

The Working Group Meeting recommended that in order to reduce the workload regarding secretariat duties for the RCA carried out by the IAEA, outsourcing to individual experts or organizations including the RCARO could be used to address specific needs such as preparation of documents and further recommended the IAEA to consider defining for consideration of the NRs those secretariat duties for the RCA which must be kept in house and those that might be outsourced.

At the 38th NRM, the IAEA clarified its secretariat duties against this and it was presented that duties related to RCA policy meetings i.e. RCA GCMs and NRMs, are possible to be outsourced, while duties on RCA programme and project management have some limitations in outsourcing. Among duties under RCA programme and project management, management of RCA projects must be kept in-house.

Based on the clarification by the IAEA at the 38th NRM and recommendation of the WG on the

future role of the RCARO, the RCARO presented on its possible support to the IAEA on its RCA secretariat functions at the 45th GCM and it was agreed that IAEA be assisted by the RCARO in administrative duties that can be outsourced, specifically preparations for policy meetings, and that the IAEA will continue to be responsible for the management of the RCA projects. It was also agreed that the RCARO coordinate administrative and logistical arrangements for the RCA WGs in close consultation with the IAEA.

According to the recommendation, the RCARO has put its efforts to coordinate meetings of WGs to be held in February 2017 in consultation with the RCA-FP and respective Chairs of the WGs.

3. Enhancing and exploring partnerships with regional/international organizations

3.1 Development of a follow-up project of RCA/UNOSSC project on electron beam (EB) applications

The RCA/UNOSSC project on electron beam applications has been completed in 2015 with successful implementation of the final progress meeting in Siem Reap, Cambodia. In the meeting, the outcomes have shown a high interest in the use of EB at national level and a follow-up project was recommended in view of the increased demand for distribution and sharing of EB technology and increased establishment of EB facility in the next few years in the participating countries.

Based on the result of the project and the recommendation of the 21st SAC to explore the possibility of continuation of the project and seeing the need to continue the development and utilize the achievements made during this project, the RCARO submitted a proposal for a follow-up project to the UNOSSC and received a positive response by the latter. Upon approval by the UNOSSC, the follow-up project is expected to commence in the first half of 2017. The RCARO will carry out necessary arrangements for continuation of the project.

3.2. RCARO/ARCCNM training workshop

Since 2008, the 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 2016, RCARO continued to support the training course held from 14 to 16 July in Shenyang, China.

3.3. Participation in the 17th FNCA Coordinators meeting

On behalf of RCA, Director of the RCARO participated in the 17th FNCA Coordinators Meeting held on 8-9 March in Tokyo, Japan, and presented achievements of the RCA and discussed cooperative activities with the FNCA done in 2015.

4. Assisting the GPs 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). As carried out in the past years, the RCARO continued its support to three students in 2016; two from INS and one from VIE.

4.2 RCARO/KAERI regional training workshop

Since 2008, the RCARO has been hosting a regional training workshop in cooperation with the Korea Atomic Energy Research Institute (KAERI). In 2016, an introductory workshop on radiation technology and its applications was held from 10 to 21 October, inviting 15 trainees from 13 RCA GPs.

4.3 IAEA/RCARO/KINS joint training course on radiation safety for countries with no radiation safety infrastructure in the region

In recent years, a few countries including Cambodia, Nepal, Fiji, Palau, and Laos that are at the beginner stage in applying nuclear technology have become new members of the RCA. Towards

supporting these countries in better participating in RCA programmes and further harmonized development of the RCA, an introductory training course could be useful and needed, considering no radiation safety infrastructure and policy in place in those countries.

Taking these circumstances into consideration, a training course on radiation safety was initiated by the IAEA under the framework of RAS9073. The IAEA suggested the RCARO to co-host the training course which would focus on building up the competence and expertise needed by national regulatory bodies in the region for the establishment and operation of an adequate regulatory programme for the safety and security of radiation sources.

In cooperation with the KINS (Korea Institute of Nuclear Safety), the training course was held from 8 August to 2 September 2016 for 4 weeks in Daejeon, Korea. 16 participants from 8 countries including new RCA Government Parties such as Cambodia, Fiji, Laos, and Nepal attended the training course.

Divided into three major parts, core training, industrial practices and medical practices, the course covered various subjects related to the safety issues and also provided technical visits to related institutes in Korea. Lecturers, not only from the KINS but also from Korea Atomic Energy Research Institute (KAERI) and Korea Institute of Radiological and Medical Sciences (KIRAMS), participated in the training course to give lectures in specified fields.

According to the course questionnaire taken after the course, 91% of the participants showed satisfaction with the source. Evaluation tests taken after each major project showed an average of 85% of achievements, indicating that the course has contributed to acquiring of adequate knowledge and expertise of trainees.

5. Increased interaction between the GPs and the RCARO

5.1 RCARO fellowship programme

Three fellows from PHI, MAL and THA were selected for the 2016 RCARO fellowship programme and PHI and MAL fellows completed their programme successfully. The fellow from THA is currently involved in the programme until February. Fellows have contributed to

updating stakeholder/end-user database on the RCA website; collecting information on regional and international events; and assisting the implementation of joint training courses with the KAERI and the KINS.

5.2 Holding a workshop on enhancing RCARO interactions with the GPs

With a view to increasing interaction with the GPs, the RCARO hosts a workshop to discuss ways to increase interaction with the GPs and accommodate the needs of the GPs and the RCARO, inviting relevant stakeholders.

This year, the workshop was replaced by the IAEA/RCARO/KINS joint training course on radiation safety for countries with no radiation safety infrastructure in the Asia-Pacific region held from 8 August to 2 September 2016 in Daejeon, Korea.

6. RCARO's future role

6.1 Holding a Working Group meeting on the RCARO's future role

The Working Group (WG) for the RCARO's future role was formed to consider the future role of the RCARO, including the issues raised in the Strategic Paper reported by Director of the RCARO at the 36th NRM. Eight WG members are Dr. John Easey (Chair), Dir-RCARO and appointees from CPR, JPN, NZE, PAK, PHI and ROK.

Following the 1st WGM in June 2014, the 2nd WGM was held in Jan. 2015 to discuss issues raised in the Strategic Paper reported by Director of the RCARO. 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 (SPs), Research Projects (RPs) and Training Projects (TPs). Concerns were also raised on adequate resources and IAEA's role in the RCA in implementing these initiatives by the RCARO during the 2nd WGM.

The report of the 2nd WGM was presented to the 44th GCM and the meeting endorsed the 3rd WGM to discuss issues related to the RCARO's future role, taking consideration of several issues in the subject and the advice from the Office of Legal Affairs of the IAEA regarding the

IAEA's role in the RCA. In addition, taking note of the challenges in staffing faced by the IAEA, the 44th GCM agreed to discuss this issue in connection with the RCARO's future role at the WGM, inviting representatives from the IAEA.

The 3rd WGM was held on 19-21 January in Jeju, Korea inviting 22 participants including WG members, the RCA FP and other relevant stakeholders. It consisted of the following three sessions;

- Session I: The RCARO's Future Role I: RCARO Managed Projects
 - Presentations on the SP, RP, and TP procedures established at the 2nd WGM
 - IAEA's analysis on its role under the RCA
 - RCA MTS 2018-2023
 - Presentation on integrated approach to the future role of the RCARO in support of the RCA programme
- Session II: The RCARO's Future Role II: 2016 Action Plan on RCARO Managed Projects
 - Presentation on the 2016 Action Plan
- Session III: The RCARO's Future Role III: Support to IAEA and Other Matters
 - IAEA's challenges in staffing related to the RCA administration
 - Other matters on the RCARO's future role

Prior to Session I, the term 'RCARO Initiated Programme' which had been introduced and used during the previous meetings was agreed to be changed to 'RCARO Managed Projects' to more appropriately reflect that the projects are proposed by the GPs and the processes involved.

During Session I, based on the presentations on SP, RP, and TP procedures, the IAEA's analysis on its role under the RCA, RCA MTS 2018-2023 and integrated approach to the future role of the RCARO in support of the RCA Programme, there were extensive discussions on RCARO Managed Projects. It was agreed that RCARO Managed Projects should comprise SPs, RPs and TPs and the selection of projects will depend on the decision of the NRs and availability of fund. The meeting also agreed that it was important for an integrated approach to be taken with regard to the processes and procedures for the selection and implementation of activities proposed for

the RCARO Managed Projects in support of the RCA programme under the existing Agreement. The meeting finalized the criteria and guidelines for SPs, RPs, and TPs and recognized that it is preferable to have SPs, RPs and TPs under the umbrella of the RCA. Noting the report of the OLA, the majority of WG members were of the opinion that the RCARO Managed Projects could be properly delivered within the current RCA.

However, the JPN member of the WG raised several legal concerns on the proposed SPs, RPs, and TPs, while the CPR member of the WG stated that RCA programme should be planned and conducted under the RCA and strict enforcement of the RCA and IAEA's involvement in RCA activities should be required.

It was recommended that the 38th NRM endorse this integrated approach and procedures for the RCARO Managed Projects and concerns raised by JPN and CPR may be shared with the NRs during the 38th NRM.

In Session II, the RCARO presented its 2016 Action Plan and progress on funding issues. With the opinion provided by the IAEA Office of Legal Affairs on the involvement of the IAEA and the fund secured to initiate RCARO Managed Projects, it was concluded that it would be possible to commence RCARO Managed Projects in 2016, if approved by the 38th NRM. It was recommended that in 2016 a TP be implemented for the new RCA GPs on RCA programme, policy, procedures, and related matters.

During Session III, the IAEA's challenges in staffing related to the RCA administration and other matters were discussed. The IAEA's challenges in RCA secretariat duties were recognized and it was recommended that outsourcing to individual experts or organizations including the RCARO could be used. In this regard, it was further recommended that the TC Department may consider defining for consideration of the NRs those secretariat duties for the RCA which must be kept in house and those that might be outsourced. In addition, the NRs are encouraged to come to a consensus on an acceptable position under which the RCARO can provide secretariat support.

Lastly, the meeting recommended that the RCARO participate in the working group for the MTS 2018-2023 on the financial gap analysis and resource mobilization and also expressed its

high appreciation to the RCARO in fund raising and promotion of the RCA.

In line with the conclusions and recommendations of each session, the meeting set up an action plan with timeline. The report of the 3rd WGM of RCARO's future role was reported to the 38th NRM for consideration of the NRs.

The 38th NRM endorsed the integrated approach, procedures and implementation of the RCARO Managed Project for 2016-17 recommended by the WG on RCARO's future role and RCARO initiated a TP in 2016.

7. Other activities

7.1 Participation in the RCA policy related meetings

The RCARO participated in the 38th NRM held on 17-20 May in Mongolia and the 45th GCM in September. Director of the RCARO delivered presentations on the RCARO's activities. The RCARO also served as a secretariat for the RCARO SAC meetings prior to the meetings above.

7.2 Participation in expert meetings on the RCA

In relation to the Regional Programme Framework (RPF) for Asia and the Pacific for 2018-2028, The IAEA organized a meeting on 22-26 February 2016, Vienna, Austria, inviting National Liaison Officers (NLOs) and National Representatives (NRs) for Asia and the Pacific Region. The RCARO participated in the meeting as an observer and shared views on the issues discussed.

Decided by the 44th GCM, the WG on MTS 2018-2023 hosted a meeting on execution of the RCA MTS, specifically on the preparation of proposed WGs in the MTS 2018-2023. Requested by the Chair of WG, the RCARO participated in the meeting on 13-15 May prior to the 38th NRM in Mongolia and made a presentation on TOR of the WG on resource mobilization.

7.3 Extra-budgetary (EB) contribution of the RCARO to the IAEA

The RCARO made an extra-budgetary contribution of US \$40,000 to support RAS6083 in

which the RCARO takes the role of the LCC.