

Report of the Director RCARO

The report of the Director of the RCARO is herewith submitted to the NRM for the consideration of the National RCA Representatives.

The Report contains information related to

1. Status of implementation of the RCARO Work Plan of 2009 (table)
2. A description of the Progress made in 2009 under the topics of
 - Increasing the RCA's awareness
 - Promoting Partnerships for the RCA
 - Preservation of nuclear knowledge
 - Other Activities
3. RCARO Work Plan for 2010 (table)
4. A description of the Work Plan of 2010 under the topics of
 - Increasing the RCA's awareness
 - Promoting Partnerships for the RCA
 - Preservation of nuclear knowledge
 - Increased interaction between Member States and RCARO

Proposed Action

The NRM may take note of the Report and approve the Work Plan for 2010 subject to any amendments.

Report of the Director-RCARO to the 32nd NRM

RCARO 2009 Work Performance

	Target	Activities	Milestone				Performance Indicators	Status
			Q1	Q2	Q3	Q4		
1	Increasing the RCA's awareness	1.1 Survey on the impacts of RCA Success Stories and consideration of follow-up actions					Collection of the questionnaires on the RCA Success Stories and discussion on follow-up actions	Done
		1.2 Presentations on the IAEA/RCA and RCARO Programmes to the target audiences					Presentations at meetings to the target audiences	Done - Presentations at ACRR and EAS Congress were delivered by three RCA experts.
		1.3 Participation in regional and international conferences to increase the awareness of the RCA					Successful participation in regional and/or international conferences	Done - Public relations activities were conducted through an exhibition booth at both events above.
		1.4 Enhanced RCA information service (through RCARO website upgrade, emailing service and publication of RCA brochures)					Effective operation of RCARO website and RCA emailing information service	Done except for the publication of updated RCA brochures which will be made in January 2010 based on the relevant materials to be acquired from PLCCs.

		1.5 Development of database for contact to increase the RCA's awareness					Establishment and operation of the database	Done
		1.6 Support for RCA experts on the RCA's awareness and promotion activities including support of RCA TCDC activities					Support for RCA experts on the awareness and promotion activities	Done - Support was provided both to two RCA experts for participation in the EAS Congress 2009 and to one expert for the UNESCAP/UNISDR meeting
2	Promoting partnerships for RCA	2.1 Implementation of RCA/UNDP Post-Tsunami Environment Impact Assessment Project					Successful implementation of 2009 work plan for RCA-UNDP Project (including the final meeting, project report, interactions with stakeholders).	Done - The project final meeting was held, and the project reports were published and distributed to the MSs and stakeholders.
		2.2 Partnership promotion with regional organizations					Development of major partnership projects with regional organizations	Done - Contacts were made with UNDP for the development of a new project; and UNISDR for prospectus for partnership
		2.3 Joint training programme with ARCCNM					Organization of the training programme with ARCCNM	Done - The 8th Annual General Meeting of Asian Regional Cooperative Council for Nuclear Medicine was held in Indonesia in November 2009.
		2.4 Application for the Tsunami Trust Fund of UNESCAP and					Application for the Tsunami Trust Fund of UNESCAP	The application was postponed due to the delay of the UNESCAP TTF

		cooperation with CCOP						announcement, which was informed to the 31 st NRM.
3	Preservation of nuclear knowledge	3.1 RCARO/KAIST Nuclear Engineering Master's Degree Course					Implementation of the RCA/KAIST Master's Degree Course	Done - Three students are being supported for the Course.
		3.2 RCARO Post-doctoral Fellowship Training Programme					Invitation of 3-5 Post-doctoral fellows	No applicants from MSs
		3.3 RCARO/KAERI (INTEC), RCARO/KINS (INSS) regional training workshops					Holding regional training workshops	Done - RCARO/KAERI Regional Training Workshop on Research Reactor Utilization and Radiation Application Technology was held on 12-23 October 2009 in Korea. - RCARO/KINS course was not held due to the decision of KINS to cancel the course.
4	Other activities	4.1 Holding a workshop on partnership promotion (Development of RCARO-initiated project including partnership programme, and development of strategies for future RCARO activities)					Organization of the workshop	Done - RCARO Workshop on Partnership Promotion and Sustainable Development was held in July in Korea.

		4.2 Participation in RCA policy meetings			—	Participation in the 31 th NRM, 38 th GCM (+ RCARO SAC)	Done - RCARO attended 31 st NRM, 38 th GCM and RCA MTS WGM.
		4.3 Operation of the Committee for the Selection and Appointment of RCARO Director				Appointment of RCARO Director as planned	Done - A new RCARO-Dir was appointed at the 31 st NRM.
		4.4 Operation of the RCARO Local Steering Committee of the host country	—	—	—	Operation of RCARO Local Steering Committee of the host country	Done - The committee was held three times
		4.5 Increased participation of the MSs in RCARO activities	—	—	—	Inviting 3-4 temporary staff from MSs	Done - Four temporary staff members were invited each from THA, CPR, PAK, and INS in 2009.
5	EB contribution	5.1 Extra-budgetary contribution of RCARO to the IAEA		—	—	EB Contribution of RCARO to the IAEA	Done

Summary of RCARO 2009 Work Performance

1. Increasing the RCA's awareness

1.1 Survey on the impacts of RCA Success Stories and consideration of follow-up actions

As decided at the 37th GCM in 2008, RCARO carried out a survey on the impact of the RCA Success Stories. Based on the positive result of the survey, it was decided at the 31st NRM in 2009 that the third batch would be published in the areas of energy planning; tracer applications, soil and water quality, and animal production. As decided at the 38th GCM in 2009 that one of the four Success Stories would be published in booklet form on a trial basis and four in leaflet form, RCARO has prepared drafts through consultation with the RCA Focal Person and relevant PLCCs, which are to be circulated for review by NRs before the 32nd NRM in 2010.

1. 2 Presentation on the IAEA/RCA and RCARO programmes to the target audiences

Presentations on the activities of RCA and RCARO were made:

- RCA Project Final Review Meeting (RAS/8/109) on “Radiation Processing of Polymeric Materials for Agricultural Applications and Environmental Applications” held 16-20 March 2009 in Daejeon, Korea;
- The 2nd Asian Congress of Radiation Research held 17-20 May 2009 in Seoul, Korea;
- RCA Executive Technical Meeting (RAS/7/015) on Characterization and Source Identification of Particulate Air Pollution in the Asian Region held 13-17 July 2009 in Daejeon, Korea;
- National Nuclear Conference held 19-21 August 2009 in Nha Trang, Vietnam;
- RCARO/KAERI Regional Training Workshop on Research Reactor Utilization and Radiation Application Technology was held 12-23 October 2009 at the International Nuclear Training and Education Center, Korea Atomic Energy Research Institute; and,
- East Asian Seas Congress 2009 held 23-27 November 2009 in Manila, Philippines. Three RCA experts, Mr Ross Jeffree, Mr Ron Szymczak and Ms Elvira Sombrito, gave presentations to audiences at their designated session under the titles of “The Role of the IAEA/MEL in Supporting Regional Seafood Safety,” “Discharges to the Marine Environment from Nuclear Activities in the Asia-Pacific Region-the Rapid Emergence of Nuclear Power,” and “The RCA/UNDP Regional Project for Post-tsunami Environment Impact Assessment using Nuclear and Isotopic Techniques,” respectively.

1.3 Participation in regional and international conferences to increase the awareness of the RCA

Through presentations and public relations activities distributing RCA brochures, success stories etc at exhibition booths, RCARO attended the following events:

- The 2nd Asian Congress of Radiation Research (ACRR 2009) held 17-20 May 2009 in Seoul, Korea; and,
- East Asian Seas Congress 2009 held 23-27 November 2009 in Manila, Philippines. Financial assistance for the participation of the three RCA experts in the EAS Congress 2009 was provided by RCARO, as decided at the 37th GCM.

1.4 Enhanced RCA information service (through RCARO website upgrade, emailing service and publication of RCA brochures)

RCARO continued an emailing service. As decided at the 38th GCM regarding the integration of the RCA websites, RCARO consulted with MAL to complete the incorporation of the RCA Members Only Homepage into the RCARO website. For an enhanced server-based operation of RCARO website, professional consultants were contracted to assist in its operation from November 2009 onwards. The publication of updated RCA brochures would be made in January 2010 after further revisions based on more information and assistance from the RCA Focal Person and relevant PLCCs.

1.5 Development of database for contact to increase the RCA's awareness

RCARO collected data from MSs based on its plan that outlined goals, scope, and contents of the database on stakeholders and end-users and a timeline for actions to be taken. A trial version of database containing the collected data was demonstrated at the 31st NRM.

1.6 Support for RCA experts on the RCA's awareness and promotion activities including support for RCA TCDC activities

RCARO provided financial support for the participation of two RCA experts in the East Asian Sea Congress 2009 held 23-27 November 2009 in Manila, Philippines, and for one expert to seek partnerships.

2. Promoting partnerships for RCA

2.1 Implementation of the RCA/UNDP Post-Tsunami Environment Impact Assessment Project

After the Project Final Review Meeting was held 20-23 October 2009 in Manila, Philippine, the Project Final Report detailing the results of the project was published and distributed to the MSs and relevant international organizations, end-users and stakeholders. As one of the end-users, National Water Resources Board of Sri Lanka showed interest in the application of the project outcome.

2.2 Partnership promotion with regional organizations

To promote partnership and develop joint projects seeking new funds, the following activities were conducted by the Dir-RCARO:

- Schedule and procedure relating to the development of new partnership projects was discussed with the representatives of **UNDP**;
- Ways to seek cooperative partnership through designation of a relevant expert of each side were discussed at the Meeting with the Executive Director of Partnerships in Environmental Management for the Seas of East Asia (**PEMSEA**) Mr Raphael P.M. Lotilla;
- Ideas on developing new partnership projects and calling for promotion of the RCA partnerships with UN organizations were shared at a meeting of the Local Government Alliance for Disaster Risk Reduction held on 11 August 2009 in Incheon, Korea with the UN Assistant Secretary General for Disaster Risk Reduction, Ms Margareta Wahlstrom, and Senior Regional Coordinator for Asia and the Pacific, Bangkok, of the United Nations International Strategy for Disaster Reduction (**UNISDR**), Mr. Jerry Velasquez and others; and,
- With focus on an availability of the Economic and Social Commission for Asia and the Pacific (**ESCAP**) Trust Fund for Tsunami, Disaster and Climate Preparedness, an RCA expert Mr Ron Szymczak pursued partnerships at the UNESCAP/UNISDR Consultation Meeting on Coastal and Climate Hazards held 17–18 September 2009 in Bangkok, Thailand.

2.3 Joint training programme with ARCCNM

RCARO provided financial assistance for 25 participants of the ARCCNM/ASNM training course on the use of advanced nuclear medicine for cancer diagnosis, which was held in Yogyakarta, Indonesia on 19-20 November 2009.

2.4 Application for the Tsunami Trust Fund of UNESCAP and cooperation with CCOP

RCARO plan for application for UNESCAP Tsunami Trust Fund was reported to the 30th NRM in 2008. The details of recipients' obligations; contents of the work scope with the fund; and the mechanism to formulate a proposal were reported to the 37th GCM in 2008. Due to the delay of the UNESCAP TTF announcement, however, it was decided that the application for the Fund would be postponed at the 31st NRM held in 2009.

3. Preservation of nuclear knowledge

3.1 RCARO/KAIST Nuclear Engineering Master's Degree Course

Three students from Member States have been in enrollment in RCARO/KAIST Nuclear Engineering Master's Degree Course in 2009. To promote RCARO/KAIST Course and recruit students, the Dir-RCARO and a KAIST professor visited MAL and THA in July 2009.

3.2 RCARO Post-doctoral Fellowship Training Programme

There was no applicant from the MSs for the Programme this year.

3.3 RCARO/KAERI, RCARO/KINS regional training workshops

RCARO/KAERI Regional Training Workshop on Research Reactor Utilization and Radiation Application Technology was held 12-23 October 2009 at the International Nuclear Training and Education Center of the Korea Atomic Energy Research Institute, with participation of 17 trainees from 10 MSs. However, RCARO/KINS regional training course on nuclear safety, which had been planned in cooperation with the International Nuclear Safety School of the Korea Institute of Nuclear Safety, was not held due to the internal circumstance of KINS.

4. Other activities

4.1 Holding a workshop on partnership development

RCARO Workshop on Partnership Promotion and Sustainable Development was held in Jeju, Korea on 7-9 July 2009, and several candidate concepts for new projects were prioritized. The results and recommendations of the Workshop were reported to the 38th GCM, in which it was

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approved that RCARO would develop the Concept Papers on Nuclear Nano-Molecular Imaging Technologies; and Electron Beam Applications.

The report of the workshop is given as annex.

4.2 Participation in RCA policy meetings

RCARO attended two policy level meetings, namely, the 31st NRM held in Tokyo, Japan on 21-24 April 2009, and the 38th GCM held in Vienna International Centre, Austria on 11 September 2009. RCARO also served as Secretariat for the 8th and 9th Meetings of RCARO SAC. In addition, it participated as observer in the Meeting of the Working Group on Extending the RCA Medium Term Strategy for 2012-2017 held in IAEA Headquarters, Vienna, Austria on 27-31 July 2009.

4.3 Operation of the Committee for the Selection and Appointment of RCARO Director

RCARO provided secretariat assistance for the operation of the Committee at the 31st NRM, in which Mr Mun-Ki Lee was appointed as the new Director.

4.4 Operation of the RCARO Local Steering Committee of the host country

The Committee meeting was held three times in 2009, in which the major administrative and managerial matters of RCARO were reviewed.

4.5 Increased participation of the MSs in RCARO activities

Four temporary staff from THA, PAK, CPR, and INS took part in RCARO activities.

5. Extra-budgetary contribution of RCARO to the IAEA

An extra-budgetary contribution by RCARO and the Korean Government was made to support the RCA Project (RAS/6/049) on Strengthening Clinical Applications in RCA MSs.

RCARO 2010 Work Plan

	Target	Activities	Milestone				Performance Indicators
			QT 1	QT 2	QT 3	QT 4	
1	Increasing awareness of RCA	1.1 Publicity activities for increasing RCA's awareness					1.1.1 Publication and distribution of the third round of RCA Success Stories (4 stories leaflets + 1 booklet)
							1.1.2 Production of promotional video on RCA activities
							1.1.3 Publication of revised RCA brochure
		1.2 Enhanced RCA information service through RCARO website					1.2.1 Successful operation of RCARO website
							1.2.2 Incorporation of information on RCA projects from RCA Members Only Homepage (MAL) into RCARO website
							1.2.3 Updating data on RCA stakeholders/end-users by Member States
							1.2.4 Collection and input of new data from participants list of past and future RCA meetings
		1.3 Participation in regional/international meetings and support for the promotion of RCA activities					1.3.1 Presentation and exhibition on RCA/RCARO activities to targeted audiences
							1.3.2. Support to RCA experts for increasing awareness and promotion of RCA

2	Promoting partnerships for RCA	2.1 Development of project in partnership with UNDP					Project development and application for partnership with UNDP
		2.2 Pursuing partnership with UNESCAP					Consultation on the partnership for the Tsunami Trust Fund (TTF) of UNESCAP where the fund is available in 2010
		2.3 Exploring partnership development with regional/international organizations					Exploration and negotiation of partnership with regional//international organizations
3	Preservation of nuclear knowledge	3.1 RCARO/KAIST Nuclear Engineering Master's Degree Course					Implementation of the RCARO/KAIST Master's Degree Course
		3.2 Support to the RCARO/ARCCNM training course					Holding the RCARO/ARCCNM training course
		3.3 RCARO/KAERI regional training workshop					Holding the KAERI/RCARO regional training workshop
4	Increased interaction between Member States and RCARO	4.1 Increased participation of Member States in RCARO activities					Inviting 3-4 temporary staff from MSs to RCARO
		4.2 Participation in RCA policy meetings					Participation in the 32 nd NRM, the 39 th GCM and the MTS related meetings
		4.3 Participation in the 11 th FNCA Coordinators Meeting					Participation in the 11 th FNCA Coordinators Meeting
		4.4 Holding a workshop on enhancing RCARO interactions with Member States					Holding a workshop to review RCARO activities and future work plan including interaction with MSs
		4.5 Extra-budgetary contribution of RCARO					EB contribution of RCARO to the IAEA

RCARO 2010 Work Plan

1. Increasing awareness of RCA

1.1 Publicity activities for increasing RCA's awareness

1.1.1 Publication of RCA Success Stories (third round)

RCARO will publish a third round of RCA Success Stories on 4 areas (*energy, tracer applications, animal production and soil erosion*). In addition, a success story in booklet type will be published on a trial basis as decided by the 38th GCM.

The drafts for the RCA Success Stories are to be submitted to the SAC and NRs for review and approval at the 32nd NRM.

1.1.2 Production of promotional video on RCA activities

Promotional activities to increase RCA's awareness have been pursued by RCA and RCARO, for which more effective materials to attract attention of audience/spectators would be needed. As promotional video is considered to be an effective tool for promotional activities, RCARO proposes to make a suitable one in 2010. If successfully developed, the promotional video can be used at suitable regional events, together with other materials such as slides, brochures and success stories.

RCARO is to start production of the video, if approved by the NRM. The schedule for the video production will be highly dependent, however, on the progress to be made in procuring necessary input materials from NRs and in the production service. For such a plan, Member States' feedback and inputs will be essential to make a successful video.

1.1.3 Publication of revised RCA brochure

The revised version of RCA brochure will be published upon approval by the 32nd NRM.

1.2 Enhanced RCA information service through RCARO website

1.2.1 Successful operation of RCARO website

RCARO will redesign its homepage to further upgrade and make it user friendly with a view to making it a hub for information flow within the RCA community. With the contract made to a professional company for RCARO website operation last year, the services to be provided by the website will continue to be improved by RCARO for better accessibility and usability in 2010.

1.2.2 Incorporation of information on RCA projects from RCA Members Only Homepage (MAL) into RCARO website

As decided at the 38th GCM in 2009 regarding the centralization of RCA websites, RCARO incorporated the RCA Members Only Homepage (MOH) and RCARO website through consultation and assistance with MAL.

RCARO is to make all the RCA project information open to public for enhancing of RCA awareness in the website, if approved by the 32nd NRM, while the previous MOH had allowed access to the information only to registered members.

1.2.3 Updating and use of data on RCA stakeholders/end-users by Member States

The database for RCA stakeholders and end-users was developed and demonstrated at the 31st NRM held in April 2009 in Tokyo. The database can easily provide information on RCA stakeholders and end-users, by search and sort function, to facilitate contact among RCA community members as well as with end-users.

RCARO will update the database on the RCA stakeholders and end-users. Cooperation of relevant stakeholders in the Member States will be required to update the database. The advice of Member States on the effective use of the database is also solicited.

1.2.4 Collection and input of new data from participants list of past and future RCA meetings

To collect more data on RCA stakeholders/end-users, RCARO will collect relevant data from the participant list of past and future RCA meetings.

1.3 Participation in regional/international meetings and support for RCA activities

RCARO will continue its effort to promote RCA to target audiences at appropriate occasions by presentation, exhibition, and to provide support to RCA experts in 2010.

1.3.1. Presentation and exhibition on RCA/RCARO activities to targeted audiences

To demonstrate the RCA's activities and performance, RCARO will promote RCA and its activities by presentation and exhibition at appropriate events such as:

- WNU School on Radioisotopes (15 May – 4 June, Seoul, Korea)
 - RCARO and Dr. John Easey will make a presentation on RCA and RCARO and hand out the RCA brochure and success stories;
- China International Isotope and Radiation Processing Technology and Equipment Exhibition and Symposium (11-13 June, Shanghai, China);
- Int'l Conference on Nuclear Power Plant Technology and Safety (17-18 June, Hanoi, Vietnam); and,
- Other relevant meetings to be identified.

1.3.2. Support to RCA experts for increasing awareness and promotion of RCA

RCARO will provide support for RCA experts in increasing RCA's awareness at appropriate occasions such as regional/international meetings.

2. Promoting Partnerships for RCA

2.1 Project development and application for partnership with UNDP

RCARO will apply for the UNDP Fund which has its timeframe and agenda for project development, based on the following two project concepts decided at the 38th GCM in 2009:

- 1) Promoting and accelerating new evolving nuclear nano-molecular imaging technologies and related cyclotron technologies in the region; and,
- 2) Electron beam applications to food preservation, treatment of environmental pollutants, etc.

RCARO plans to have a couple of meetings with the Chief of the fund in Bangkok and others involved to discuss the detailed agenda for application to the fund. The two concept papers, which were submitted to the 38th GCM, have been refined as decided at the GCM and will be submitted to the 32nd NRM for further comment and review.

The tentative schedule for the project development, subject to change due to conditions and schedule of the UNDP Fund, is as follows:

- (1) Application of the two candidate projects for the Fund: July, 2010;

- (2) Presentation on the projects to a steering committee of the Fund: September, 2010; and
- (3) If selected, project(s) launch for execution: October, 2010.

2.2 Pursuing partnership with UNESCAP

If the UNESCAP Tsunami Trust Fund (TTF) is available in 2010, RCARO will pursue consultation for the TTF application in cooperation with relevant experts in the Member States.

2.3 Exploring partnership development with regional/international organizations

RCARO will explore international funding sources, in terms of funding availability, relevance with RCA, and other terms and conditions, to identify appropriate partners. Then RCARO will identify feasible joint projects to initiate consultation with the partners.

It was noted from the investigation RCARO has done so far that it is difficult to develop partnership projects with novel applications of nuclear techniques other than the RCA project. In this regard, RCARO will focus on the feasibilities of expanding the application of RCA project results and further development of the RCA projects.

3. Preservation of Nuclear Knowledge

3.1 RCARO/KAIST Nuclear Engineering Master's Degree Course

The nuclear knowledge preservation programme was initiated by RCARO in cooperation with the Korea Advanced Institute of Science and Technology (KAIST) for Nuclear Engineering Master's Degree Course. Currently, three students are enrolled. RCARO/KAIST will select students from Member States for the 2010 fall and 2011 spring semesters.

3.2 RCARO/ARCCNM training course

Encouraged by the successful holding of RCARO/ARCCNM Training Course held in 2008 and 2009, RCARO/ARCCNM will select trainees and hold the course in Dhaka, Bangladesh in December 2010.

3.3 RCARO/KAERI regional training workshop

RCARO will hold a regional training workshop on research reactor utilization and radiation

application technology in October or November, ROK in cooperation with KAERI. The RCA MSs are solicited to recommend appropriate candidates for the workshop.

4. Increased interaction between Member States and RCARO

4.1 Inviting 3-4 temporary staff to RCARO from Member States

RCARO has selected 4 temporary staff from MSs to work at RCARO in 2010. Now a temp staff from Bangladesh assists RCARO in merging the MOH data into the RCARO website, and three from Mongolia, China, and Thailand are planned to work subsequently at RCARO in 2010.

4.2 Participation in the 32nd NRM, the 39th GCM and MTS related meetings

RCARO will participate in the RCA policy meetings, including the 32nd NRM in Manila in April 2010 and the 39th GCM in Vienna in September 2010. At present, RCARO participated in the MTS Working Group meeting for Regional Strategic Priorities and Analysis of Regional Profile held in February 2010, Vienna. RCARO will also provide assistance to the operation of RCARO SAC meetings as secretariat.

4.3 Participation in the 11th FNCA Coordinators Meeting

On behalf of RCA, RCARO participated in the 11th FNCA Coordinators Meeting held in March 2010, Tokyo, to discuss cooperative matters between RCA and FNCA.

A summary of the views expressed on the three projects in cooperation between RCA and FNCA could be given as follows:

- FNCA esteems the cooperation with RCA is valuable and hopes to strengthen the collaboration by RCA participation in some FNCA test activities
- The participation of non-FNCA RCA Member States in the cooperation with FNCA is encouraged
- There was no mention of enlarging the cooperative scope with RCA to other areas.

4.4 Holding a workshop on enhancing RCARO interactions with Member States

With a view to increasing RCARO interaction with the Member States, RCARO plans to hold

a workshop to discuss effective interactions for support to the Member States, to review on RCARO activities and to discuss future work plan, in participation of SAC Members, NRs and other relevant experts, among others.

RCARO proposes holding the workshop for 3 to 4 days in the week of 12 July in Busan, Korea, and requests for active participation of SAC members, NRs, and RCA experts.

4.5 Extra-budgetary contribution of RCARO to the IAEA

An EB contribution by RCARO and the ROK Government will continue in 2010 subject to the budget availability of RCARO.