

= Scenario of RCA Promotional Video =

I. Background

1. Purpose: To increase the awareness of RCA and its activities and
To develop partnership with international organizations in co-financing projects
2. Where to Use? At International conferences and meetings related to nuclear science and technology
To be presented in plenary sessions and also during booth activities
3. Length: Approx. 6 min
4. To Whom? Experts and Non-experts (policy-makers, end-users, fund-providers, general public)
5. The contents should
 - be easy to understand
 - stress the socio-economic benefits Member States gained through RCA projects
 - deliver the intention of building partnership with international organizations
 - be interesting and creative to draw attention
 - reflect requests from RCA Member States

6. Theme of the Video: RCA Projects for Regional Prosperity

7. Composition of the Scenario

Prologue	5 %	- General Contributions of Nuclear Technology
Introduction to RCA	25 %	- Milestones of RCA - RCA Region and Member States
RCA Projects	50 %	- Success Stories in four Major RCA Project Areas: Industry, Agriculture, Environment, and Human Health
RCA's Decision-making Process	5 %	- NRM, GCM
Introduction to RCARO	5 %	- Roles in publicity and partnership projects
Epilogue	10 %	- RCA's future direction

	VIDEO	NARRATION
<p>Prologue :contributions made through nuclear technology and science</p>	<p>#the earth from a satellite view</p> <p># natural disasters by climate change (collapsing iceberg/ floods/ typhoons/ desertification)</p> <p># industrial chimneys pumping out greenhouse gases</p> <p># a symbolic diagram of nuclear technology (possibly an atom with electrons circulating around)</p> <p># clean nature, grass field and hills, blue sky</p> <p># Children emerge over the grass hill with smiling faces.</p> <p># Children blow bubbles.</p> <p># Several bubbles rise up to the sky with each bubble representing each RCA project area: environment, health, industry, agriculture, and energy</p> <p># Close up one bubble of agriculture</p> <p># Within the bubble, it shows examples of nuclear technology in agriculture with changing images of rice field, flowers of various colors produced through irradiation, ect</p> <p># Close up the other bubbles with changing images related to the corresponding area</p> <p># A graph with rising bars indicates expanding application of nuclear technology in RCA region</p>	<p>Climate change/ Environmental pollution/ Desertification of valuable farm lands</p> <p>The Earth needs solutions to the pressing problems</p> <p>Nuclear Technology is a promising hope that has many applications surrounding human well-being, providing clean and sustainable solutions for future generations</p> <p>Major areas of the application of nuclear technology by RCA have been agriculture, industry, medicine, and environment</p> <p>Due to the great benefit of nuclear technology, the use of it has continued to expand in the RCA region</p>

Title	RCA for Regional Prosperity	
bridge	Milestones of RCA	
Milestones of RCA	<p># an RCA meeting at IAEA</p> <p># fishery, sea, boats, fishermen fishing with nets, fish, smiling fishermen</p> <p># photos of the first UNDP/IAEA/RCA industrial project in 1982 (shaking hands, signing on documents)</p> <p># photos of RCA training programmes (participants, certificate, trainer's instruction, field activities)</p>	<p>With increasing awareness of the useful application of nuclear technology in various areas, the Regional Cooperative Agreement was initiated by IAEA in 1972 for its member states in Asia and the Pacific.</p> <p>After one year in 1973, the first RCA project on preservation of fish and fishery products was launched</p> <p>In 1982, the first UNDP/IAEA/RCA industrial project was implemented</p> <p>From its birth in 1972 to the present, RCA has invested US\$59million in various regional projects. To date, 104 partnership projects in sectors such as agriculture, human health, industry, and environment have been completed and 15 projects are currently under progress.</p> <p>Through the RCA projects, about 8,200 participants benefited from 502 regional training courses, and another 2,200 personnel could participate in 191 regional workshops and/or technology conferences and took the opportunity to acquire advanced knowledge on nuclear</p>

	<p># photos of the Medium Term Strategy(MTS) meeting</p> <p># the opening ceremony of RCARO</p>	<p>science and technology.</p> <p>The RCA Medium Term Strategy for 2006-2011 was established in 2006</p> <p>Currently 15 projects in five sectors are under progress in the collaboration with the 17 RCA Member States</p> <p>As RCA secretariat, RCA Regional Office was established in Korea in 2002</p>
<p>Introduction to RCA</p>	<p># RCA logo</p> <p># Starting from a world map, get closer to the RCA region</p> <p># fill RCA region with a different color starting from South Asia, then Southeast Asia, and then the Pacific.</p> <p># indicate Nepal and Palau with a blinking color</p> <p># Camera gets away from the RCA region to encompass the whole world, emphasizing the significant proportion of the RCA region in the world</p>	<p>RCA, the Regional Cooperation Agreement, is an intergovernmental agreement among IAEA Member States of South Asia, South East Asia and the Pacific region to cooperate with each other and the IAEA</p> <p>The 17 RCA Member States are Pakistan, India, Bangladesh, Myanmar, Thailand, Vietnam, Malaysia, Singapore, Indonesia, the Philippines, China, Mongolia, Korea, Japan, Australia, and New Zealand.</p> <p>Now that Nepal and Cambodia want to join RCA, the RCA region will continue to expand, encompassing nations of great economic and industrial importance in the globe</p>

	# fast changing images of dynamic industrial development in RCA Member States (construction sites, manufacturing process, heavy traffic on highway)	
bridge	Success Stories of RCA's contribution to the region	
RCA project - Success Stories	<p># A diagram shows four RCA project areas</p> <p># Focusing on the sector of industry in the diagram, a list of RCA projects in the form of RAS documents appears. The documents for the projects of Success Stories are selected.</p> <p>- Images concerning RCA Success Stories in industry</p> <p># laboratory, experiments to synthesize new materials</p> <p># an animation explains the technical principle</p> <p># products by the technology application</p>	<p>In the face of fast growing population and the consequent need for industrial infrastructure, nuclear technology is of great potential in dealing with current problems in developing countries. For the purpose of benefiting RCA Member States, RCA projects have been conducted in accordance with each member state's national goals.</p> <p>Here are successful RCA projects in the four major RCA project areas</p> <p>In industry/ New materials were developed by using natural polymers through the application of radiation. When exposed to radiation such as gamma-ray, molecules break, stick together, or attached to another one. The result substance is radiation free. In this way, RCA Member States could develop their capacity to tailor new substances for their specific needs.</p>

	<p># a scen of NDT implementation</p> <p># specifics of NDT(screen showing the result of the test, ect)</p> <p># smiling workers wearing safety equipment with background of an industrial facility</p> <p>- Images concerning RCA Success Storyies in agriculture</p> <p># terraced paddy filed in the Philippines, lambs and horses in the grass field in Mongolia (some famous agricultural scenes of RCA Member States)</p> <p># irradiation of crop seeds</p> <p># healthy, growing crops in the filed</p> <p># livestock (chickens, pigs, cows, ect)</p> <p># An animation explains the use of isotope in the investigation of digestion process.</p> <p># artificial insemination of animals</p>	<p>Non-destructive Test is also a major industrial application of radiation. Through detecting structural problems of industrial facilities well in advance, NDT enables RCA Member States to maintain their plants and factories in a safe and cost-saving way</p> <p>In agriculture/ For many of RCA Member States, agriculture is their major economic part. In order to increase livestock productivity and crop yields, isotope technologies have been useful.</p> <p>With exposure to radiation, genes in seeds mutate, which results in a divers genetic pool. By choosing crop species of strong resistance against pest and harsh environment, farmers can increase their crop yields.</p> <p>Isotope technology has been also used to increase livestock productivity in RCA Member States. By investigating the course of digestion of ruminant animals, specific feed could be designed with consideration of nutritional and medical effects.</p> <p>Furthermore, by inspecting hormones in animal secretions</p>
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	<p># harvesting farmers, smiling farmers feeding livestock</p> <p>- Images concerning RCA Success Stories in environment</p> <p># hazardous gas emission from factory chimneys</p> <p># vehicle fumes in a traffic jam</p> <p># waste-water flows</p> <p># oil spill from an oil tanker to sea</p> <p># an animation explains how radiotracers work</p> <p># a diagram of electron beam accelerator's treatment on removing harmful flue gases</p> <p># data collection from a sampling station</p> <p># a researcher analyzing the data using equipments</p>	<p>by using isotopes, pregnancy can be checked and artificial insemination could be adopted in a timely fashion for better management of livestock breeding. An RCA Member State, Pakistan showed a successful case of artificial insemination of livestock.</p> <p>The application of nuclear technology in agriculture resulted in increased income of farmers in RCA Member States by more than 30 % in the case where the medicated special feed was used.</p> <p>In environment/ Many large cities are facing serious economic and health problems due to environmental factors like air, water, and marine pollution. Addressing the problems involves a variety of applications from the use of isotopes as tracers for selected pollutants, to the use of electron accelerators for removing harmful flue gases from fossil-fueled plants.</p> <p>Nuclear techniques have been used to monitor air particulate matter, to identify the sources of origin of the individual specks of pollutants, and to 'map' their pathways through the air. As a result of RCA programme,</p>
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<p># the PNRI's relevant office</p> <p># cover and inside of the National Air Quality Status Reports</p> <p># researchers in doing sample collection, measurement and analysis</p> <p># toxic chemicals concentration and dispersion characteristics of water bodies sampled</p> <p># a diagram of FRN</p> <p># an example of the land management strategy (China)</p> <p>- Images concerning RCA Success Stories in human health</p> <p># treatment in hospital</p> <p># X-ray</p> <p># diagnosis of cancer</p> <p># a smiling lady patient who received proper treatment of a cancer due to early detection of the disease</p>	<p>The Philippine Nuclear Research Institute (PNRI) has produced the first long-term database (going back to 1997) for fine and coarse particulate matter in Metro Manila. It resulted that the data have been reported in the National Air Quality Status Reports since 2002 as mandated by the Philippine Clean Air Act.</p> <p>Numerous analytical techniques are used for investigations such as radionuclide contamination, measurement of concentrations of various chemical and the dispersion characteristics of water bodies.</p> <p>Also, effective land management strategies to combat soil erosion-caused degradation were made possible from the nuclear analytical techniques.</p> <p>In human health/ The human health sector has benefited from the application of nuclear technology in numerous ways. The use of X-rays as a diagnostic tool is well known but there are also numerous ways in which radioisotopes can be used in diagnosis and treatment of many common diseases. In most RCA Member States, emphasis is put on diagnosis and treatment of cancer, early detection and</p>
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	<p># an animation of tracing vitamin and mineral absorption in a human body</p> <p># food-based dietary</p> <p># SPECT/PET usage</p> <p># DAT package and trainees using the DAT program</p> <p># a researcher in doing sample collection, measurement and analysis</p> <p># a group of people to discuss around a ground-water spot</p> <p># protection zones for aquifers</p> <p># diagrams and graphs showing numerical data about the achievements made through RCA projects</p>	<p>treatment of other common non-hereditary and hereditary diseases, and identification of nutritional deficiencies.</p> <p>As a result of RCA programme, Most of the RCA Member States have acquired the capability of using more advanced imaging techniques such as SPECT and PET. RCA also has contributed to the Nuclear Medicine Programme of the Member States by providing Distance Assisted Training package to train nuclear medicine technologies.</p> <p>In addition, isotopic techniques are used to find clean drinking water. Combined with conventional hydrological techniques, they has produced more accurate assessments and predictions of ground-water behavior that resulted in proper management of the region's drinking water resources, such as establishment of protection zones for aquifers in the Philippines and Thailand.</p> <p>RCA has completed 104 projects and conducts 15 ongoing projects in collaboration with Member States and international organizations.</p>
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	<p># photos of RCA training programmes (participants, certificate, trainer's instruction, field activities)</p>	<p>Through RCA projects, RCA contributed to the human resource development in the RCA region, which led to enhanced capacity and skills in nuclear techniques.</p> <p>RCA has conducted 502 training courses attended by 8,245 persons, and 191 regional workshops and technical seminars attended by 2,236 persons. Besides RCA has supported 124 fellowships for training and dispatched 1,033 experts to member states to assist their project implementation</p>
bridge	RCA's decision-making process	
Decesion-making process of RCA	<p># On an RCA yearly plan, April and September are marked with the two important meeting</p> <p># photos and videos of NRM and GCM</p> <p># RCARO's participation in the meetings, taking administrative roles such as rapporteur</p> <p># inside the offices of RCARO in KAERI, Korea</p>	<p>RCA holds two important meetings a year: one is Meeting of National RCA Representatives in April and the other is General Conference Meeting in September.</p> <p>At NRM and GCM, proposed RCA projects are discussed and approved, and the progress status of ongoing projects are checked.</p> <p>Administrative work for effective operation of RCA is taken over by RCA Regional Office, which was established in Korea in 2002</p>

bridge	RCA Regional Office, the RCA secretariat	
Introduction to RCARO	<p># a panorama of Korea Atomic Energy Research Institute</p> <p># the building where RCARO is located</p> <p># inside the Regional Office, staff at desks</p> <p># photos of the post-tsunami project</p> <p># 4 editions of RCA brochures</p> <p># 3 batches of 13 RCA Success Stories</p>	<p>Located within the premises of Korea Atomic Energy Research Institute, RCA Regional Office takes the role of RCA secretariat and carries out its own partnership projects with international organizations</p> <p>For example, the RCA Regional Office has coordinated a collaborative project with UNDP on the environmental impact of Post-tsunami. The project was successfully completed with its final report issued in 2009.</p> <p>RCA Regional Office also publicizes RCA activities.</p> <p>So far, 4 editions of RCA brochures and 3 batches of 13 Success Stories have been published and distributed by RCARO</p>
bridge	RCA future direction	
Epilogue	<p># streets in RCA MSs with a lot of people and traffic(dynamic)</p>	<p>RCA is committed to the socio-economic development of RCA Member States</p>

	<p># logos of UNDP, FAO, ADB, ect</p> <p># shaking hands, signing on documents</p> <p># a diagram with RCA region in the center</p> <p># Arrows start from RCA region and stretch toward logos of UNDP, FAO, ADB, ect, which were allocated surrounding RCA region</p> <p># RCA region gets brighter</p> <p># children of various origins in RCA region with their arms around each other's shoulders</p> <p># The children look up to the sky.</p> <p># A symbol of atom rises to the sky and RCA logo appears.</p>	<p>For better use of RCA project results, RCA plans to evaluate RCA project outcomes.</p> <p>RCA will continuously pursue partnership projects with international organizations such as UNDP, FAO, ADB, and other NGOs to make greater contribution to the RCA region.</p> <p>As a regional community, RCA Member States will continue to cooperate for the ultimate goal of prosperity, security and clean environment for future generations, by realizing the promising benefits of nuclear technology</p>
Closing	Thank you	
Title	Produced by RCA Regional Office on behalf of RCA	