

**RCA Programme Advisory Committee (PAC)**

**Report on the Evaluation of Pre-Concepts for the 2022/2023 TC Cycle**

**Background:**

In accordance with the RCA Procedure for development of RCA Projects to be implemented under the Technical Cooperation Programme of the IAEA, the RCA GPs submitted 46 Pre-Concepts before the stipulated deadline of 2<sup>nd</sup> of August. They comprised 12 Pre-Concepts in Food and Agriculture, 1 in Energy Planning, 6 in Environment, 15 in Human Health, 9 in Industry and 3 in Radiation Safety Sectors. These Pre-Concepts were evaluated by the RCA Programme Advisory Committee (PAC) and the results of the evaluation are contained in this Background Paper, which is submitted to the 48<sup>th</sup> RCA GCM.

**Evaluation Criteria:**

The following criteria were used by the RCA PAC in evaluating the Pre-Concepts.

- a) Conformity to the priority areas of the RCA Medium Term Strategy for 2018-2023
- b) Whether the Pre-Concept addresses a regional need
- c) The role of nuclear technology
- d) Whether the Pre-Concept is focused on technology transfer or research

A number of Pre-Concepts are in project areas of previous RCA Projects. The recommendation to develop them further is subject to taking into consideration the outcomes and achievements of these previous projects and focusing on gaps in these projects in further development of these Pre-Concepts. It is strongly recommended the LCCs make a thorough review of the previous and ongoing projects to identify the specific needs and gaps to be addressed, in developing these Pre-Concepts to Concepts and in designing the projects from the Concepts that are approved for further development.

**Outcome of the evaluation:**

The following table gives the number of projects recommended for further development and the number of projects recommended for merging, in each thematic sector. A summary of the evaluation of the Pre-Concepts is given in Annex A and the details of the evaluation is given in Annex B, which also contains comments of PAC to be considered in further development of the projects and reasons for not recommending Pre-Concepts for further consideration.

<b>Thematic Sector</b>	<b>Number of Pre-Concepts</b>	<b>Proceed to formulate as a Concept</b>	<b>Proceed after merging</b>	<b>No further development</b>	<b>No. of Concepts</b>
Agriculture	12	2	4	6	4
Energy Planning	1	1	0	0	1
Environment	6	3	0	3	3
Human Health	15	2	3	10	3
Industry	9	1	4	4	3
Radiation Safety	3	3	0	0	3
<b>Total</b>	<b>46</b>	<b>12</b>	<b>11</b>	<b>23</b>	<b>17</b>

### **Proposed Action**

- a) Agreement on the Pre-Concepts to be developed further based on the recommendation of the RCA PAC and on the availability of TC funds for the 2022/2023 TC cycle for RCA Projects and
- b) Appointment of LCs for drafting **and submitting** Project Concepts for consideration at the next NRM by **deadline in Annex C**, in accordance with the procedure for Development of RCA Projects, outlined in Annex 8 of the GOR.

## **Agricultural Sector**

### Pre-Concepts to be developed further

1. Research and development into insect pest control using nuclear and area wide methodologies. (AUL)
2. Isotope techniques to optimize irrigation water usage under water limiting conditions (SRL)

### Pre-Concepts to be merged

#### Group 1

1. Assessing and mitigating agro-contaminants to improve soil and water quality in catchments using nuclear and isotopic techniques (AUL)
2. Supporting Integrated Isotopic Approaches to Adapt Drought, Floods and Land Degradation In agro-ecosystems Induced by Human Driven Climate Change in Asia Pacific Region (CPR)

#### Group 2

1. Improving food safety control system by Strengthening multi-stakeholder supported monitoring programmes for chemical residues and contaminants in foodstuffs of plant and animal origin (BGD) \*
2. Development of suitable nuclear analytical techniques for food adulterants (IND)\*

\* The role of nuclear technology should be more clearly identified.

## **Energy Planning Sector**

### Pre-Concepts to be developed further

1. Enhancing Regional Capacity and Foundation of Nuclear Energy Development in Asia-Pacific Region (CPR)

## **Environmental Sector**

### Pre-Concepts to be developed further

1. Radiological Impact Assessments from Emerging Nuclear and Climate Challenging on Coastal and Marine Environment and Seafood Consumers in the Asia-Pacific Region (THA)
2. Source determination of black carbon to assess its impact on climate change and human health in the Asia-Pacific region (INS) \*
3. Enhancing the Regional Collaboration in Water Isotope Monitoring for Climate Change Research and Projection in Asia Pacific Region\*(VIE) \*

\*Recommendation is subject to taking into consideration the outcomes and achievements of previous and ongoing projects in this project area and focusing on gaps in these projects in further development of the Pre-Concept.

## **Human Health Sector**

### Pre-Concepts to be developed further

1. Strengthening Comprehensive Adaptation of Hypofractionated Radiotherapy from Physics to Clinic in the RCA Region (ROK)
2. Improvement and standardization of radiotherapy in palliative care in the RCA Region (JPN)

### Pre-Concepts to be merged

1. Strengthening radiation medicine by enhancing the clinical training of medical physicists through regional cooperation (AUL)\*
2. Improving the Safety and Quality of Radiotherapy in Asia-Pacific Region through Medical Physicist Training and Auditing (CPR)\*
3. Quality audit and training on advanced radiotherapy treatment in Asia-Pacific (AUL)\*

\*Recommendation is subject to taking into consideration the outcomes and achievements of previous and ongoing projects in this project area and focusing on gaps in these projects in further development of the Pre-Concept.

## **Industrial Sector**

### Pre-Concepts to be developed further

1. Quality Management Practices at Radiation Processing Facilities (MAL)

### Pre-Concepts to be merged

#### Group 1

1. Integrated capacity augmentation in regional infrastructure and expertise in composite non-destructive evaluation modalities for sustainable societal growth (IND)\*
2. Enhancing regional capabilities in advanced non-destructive testing (NDT) techniques and applications for improved safety and inspection performance in industries (MAL)\*

#### Group 2

1. Strengthening and consolidating the capabilities of RCA Government Parties in application of emerging radioisotope techniques for efficiency improvement in industrial systems (PAK)\*
2. Development and applications of radioisotope techniques for investigation of flow dynamics and design validation of complex industrial and environmental systems (IND)\*

\*Recommendation is subject to taking into consideration the outcomes and achievements of previous and ongoing projects in this project area and focusing on gaps in these projects in further development of the Pre-Concept.

## **Radiation Safety Sector**

### Pre-Concepts to be developed further

1. Strengthening Medical Preparedness and Response for a Nuclear/Radiological Emergency in the RCA Region (ROK)\*\*\*
2. Developing theoretical and technical capabilities in Occupational Radiation Protection (AUL)\*\*\*
3. Strengthening Regional Cooperation on Treatment Method and Radiation Protection of Tritiated Waste from Nuclear Facilities in Asia Pacific Region (CPR)\*\*\*

\*\*\* The recommendation for further development of these projects is subject to their focus is being on areas not addressed by the non-RCA TC Projects on Radiation Safety, the RCA GPs have participated in the past.

## Thematic Sector: Agriculture

	GP	Title	Recommendation	Comment
A1	Cambodia	Establishment of Irradiation Laboratory in the Educational University	No further development	The objective of the project is to establish an irradiation facility in the proposing GP. Does not address a regional need and therefore is not appropriate to be considered as a RCA Project.
A2	Australia	Assessing and mitigating agro-contaminants to improve soil and water quality in catchments using nuclear and isotopic techniques	Proceed to formulate as a Concept merging with Pre-Concept on “Supporting Integrated Isotopic Approaches to Adapt Drought, Floods and Land Degradation In agro-ecosystems Induced by Human Driven Climate Change in Asia Pacific Region ” submitted by China.	The achievements of the past RCA Project RAS/5/055 and the objectives of the ongoing project RAS/5/084 should be reviewed and the specific gaps that need to be addressed should be identified in further development of this Pre-Concept. Duplication with RCA Project RAS2018006 on groundwater pollution also should be avoided.
A3	Australia	Research and development into insect pest control using nuclear and area wide methodologies.	Proceed to formulate as a Concept	The recommendation proceed is subject to substantiating the claimed link to MTS C2.1. The focus of the project should be on human resources development rather than on research and development. The title should be accordingly revised.
A4	China	Supporting Integrated Isotopic Approaches to Adapt Drought, Floods and Land Degradation In agro-ecosystems Induced by Human Driven Climate Change in Asia Pacific Region	Proceed to formulate as a Concept merging with Pre-Concept on “Assessing and mitigating agro-contaminants to improve soil and water quality in catchments using nuclear and isotopic techniques ” submitted by Australia	The achievements of the past RCA Project RAS/5/055 and objectives of the ongoing project RAS/5/084 should be reviewed and the specific gaps that need to be addressed should be identified in further development of this Pre-Concept. Duplication with RCA Project RAS2018006 on groundwater pollution also should be avoided. The title should be concise and reflect the project objective.

A5	Bangladesh	Improving food safety control system by Strengthening multi-stakeholder supported monitoring programmes for chemical residues and contaminants in foodstuffs of plant and animal origin.	Proceed to formulate as a Concept merging with Pre-Concept on “Development of suitable nuclear analytical techniques for food adulterants” submitted by India.	The recommendation to proceed is subject to verification of the role of nuclear techniques. The role of nuclear technology should be clearly stated in the Project Concept. Duplication should be avoided with the ongoing RCA Project on food authentication (RAS/5/081).
A6	India	Improvement of traditional land races, local farmers’ varieties of in Asia-Pacific region through radiation induced mutagenesis.	No further development	A number of RCA projects on mutation breeding has been implemented in the recent past (RAS/5/077, RAS/5/070, RAS/5/056) in addition to a new project in 2020/2021. (RAS2018005). It may be possible to achieve the objectives of this Pre-Concept through the technology transferred through the above mentioned projects.
A7	India	Development of suitable nuclear analytical techniques for food adulterants	Proceed to formulate as a Concept merging with Pre-Concept on “Improving food safety control system by strengthening multi-stakeholder supported monitoring programmes for chemical residues and contaminants in foodstuffs of plant and animal origin” submitted by Bangladesh.	The recommendation to proceed is subject to verification of the role of nuclear techniques. The role of nuclear technology should be clearly stated in the Project Concept. Duplication should be avoided with the ongoing RCA Project on food authentication (RAS/5/081).
A8	Malaysia	Securing mutant genotypes through systematic germplasm collection and material exchange for Asia Pacific Region	No further development.	The network for exchange of mutant germplasm has been established well and advanced through the RCA projects RAS5040 and RAS5077. Nuclear/radiation technology is not a major component of the proposal.

A9	Pakistan	Development of Early Maturing Rice Genetic Stock to raise Socio-economic condition of Paddy Farmers	No further development	A number of RCA projects on mutation breeding has been implemented in the recent past (RAS/5/077, RAS/5/070, RAS/5/056) in addition to a new project in 2020/2021 (RAS2018005). It may be possible to achieve the objectives of this Pre-Concept through the technology transferred through the above mentioned projects. The problem to be addressed refers to a need of the proposing GP rather than a regional need. Focus of the project is on research rather technology transfer.
A10	Indonesia	Phytosanitary Irradiation as Quarantine Treatment of Tropical Fruit to Meet Technical Export Requirements	No further development	The Pre-Concept address a problem in the proposing GP rather than a regional need. A similar project titled "Application of Food Irradiation for Food Security, Safety, and Trade" (RAS/5/042) had been implemented in the past. There is an RCA project on food irradiation in the 2020/2021 cycle (RAS2018016)
A11	Vietnam	Developing climate resilient crops through mutation breeding and biotechnology techniques	No further development	A number of RCA projects on mutation breeding has been implemented in the recent past (RAS/5/077, RAS/5/070, RAS/5/056) in addition to a new project in 2020/2021.(RAS2018005). It may be possible to achieve the objectives of this Pre-Concept through the technology transferred through the above mentioned projects.
A12	Sri Lanka	Isotope techniques to optimize irrigation water usage under water limiting conditions	Proceed to formulate as a Concept	The technology of isotopic analysis for ground water management had been transferred through previous RCA Projects RAS/7/022 and RAS//7/030. The specific gaps to be addressed through this project should be stated in the Concept Paper, in relation to the outcomes and achievements of past RCA projects on isotope hydrology. Duplication also should be avoided with past and current non-RCA projects on water resources management

**Thematic Sector:** Energy Planning

	<b>GP</b>	<b>Title</b>	<b>Recommendation</b>	<b>Comment</b>
EP1	China	Enhancing Regional Capacity and Foundation of Nuclear Energy Development in Asia-Pacific Region	Proceed to formulate as a Concept	The recommendation to proceed is subject to improving the alignment of the project with the priority areas of Energy Planning in the RCA MTS for 2018-2023.

**Thematic Sector:** Environment

	<b>GP</b>	<b>Title</b>	<b>Recommendation</b>	<b>Comment</b>
EN1	Thailand	Radiological Impact Assessments from Emerging Nuclear and Climate Challenging on Coastal and Marine Environment and Seafood Consumers in the Asia-Pacific Region (RCA)	Proceed to formulate as a Concept	The project is in a priority area of the MTS 2018-2023 for the Environmental Sector under Coastal and Marine resources. It should further develop the capabilities developed through previous RCA Projects RAS/7/021 and RAS/7/028, addressing specific gaps. The project should be more focused on the radiation impacts on marine species and consumers. The title should be revised accordingly and be made more concise.
EN2	India	Integrated multi-isotope (H, O, C, S, B and Sr) and geochemical tracing of thermal waters of RCA region	No further development	The project is not in a priority area identified in the MTS for 2018-2023. The overall benefit of the project is not clearly stated.
EN3	Mongolia	Capacity Strengthening on Air Pollution Monitoring using Nuclear Analytical Techniques	No further development.	The project addresses a national need of the proposing GP rather than a regional need. The problem to be addressed had been addressed through past RCA projects on Air-Pollution. May consider collaborating with Indonesia (EN 5)

EN4	Pakistan	Groundwater Radioactivity and Geochemical data Mapping in Era of Extensive Tube-Well Mining & Climate Change: Devising a Strategy for Sustainable Groundwater Resource Management	No further development	The project addresses a need of the proposing GP rather than a regional need. The principle focus of the objectives seem to be research rather than technology transfer. There is duplication with new RCA Project on “Enhancing Regional Capability for the Effective Management of Ground Water Resources Using Isotopic Techniques” (RAS2018006) and the ongoing RCA Project “Assessing Deep Groundwater Resources for Sustainable Management Through the Utilization of Isotopic Techniques” (RAS/7/030).
EN5	Indonesia	Source determination of black carbon to assess its impact on climate change and human health in the Asia-Pacific region	Proceed to formulate as a Concept	There had been a number of RCA projects on air-pollution in the past (RAS/7/029, RAS/7/023, RAS/7/015, RAS/7013). Black carbon measurement had been a component of projects RAS/7/013 and RAS/7/015. The role of nuclear technology is not clear. The recommendation to proceed is subject to the project focusing on areas that had not been addressed by previous RCA projects. There should be a clear role for nuclear technology. May consider collaborating with Mongolia. (EN 3)
EN6	Vietnam	Enhancing the Regional Collaboration in Water Isotope Monitoring for Climate Change Research and Projection in Asia Pacific Region	Proceed to formulate as a Concept	The use of a nuclear technology is not specifically mentioned, but the use of isotope hydrology is implied. The technology of isotopic hydrology had been transferred through previous RCA Projects RAS/7/022 and RAS//7/030. The specific gaps to be addressed through this project should be stated in the Concept Paper, in relation to the outcomes and achievements of past RCA projects on isotope hydrology. The Concept Paper should also indicate the socio-economic impact of the project

**Thematic Sector:** Human Health

	<b>GP</b>	<b>Title</b>	<b>Recommendation</b>	<b>Comment</b>
HH1	Thailand	Enhancing Safety and Effectiveness in Diagnostic Radiology through Training of Medical Imaging Professionals in Quality Practices	No further development	This Pre-Concept addresses a national need of the GP rather than a regional need. The link to MTS for 2018-2023 is not clear.
HH2	Thailand	Enhancing Safety and Effectiveness in Diagnostic Radiology through Training of Medical Imaging Professionals in Quality Practices	No further development	There is duplication with the new RCA Project on " Enhancing Capacity and Capability for the Production of Cyclotron-Based Radiopharmaceuticals" (RAS2018007). This Project Concept may be reconsidered after the assessing the outcomes of RAS2018007 after it is completed.
HH3	Vietnam	Strengthening the capabilities and capacities of PET/ CT simulation for radiotherapy in the RCA region.	No further development.	Although it quotes the usefulness of PET/CT scanning for radiotherapy, the expected outcome shows the project activities focus on PET/CT simulation training. RAS6093 dealing with this technical focus is being implemented from 2019 to 2022.
HH4	India	To estimate the employment and return to work rates, cost of care, overall economic burden in patients of common cancers undergoing radiotherapy treatment.	No further development	The project is more of research in nature and not in the strategic priorities. It only is indirectly related to cancer management. There was a similar study by Harvard, released at the World Economic Forum. The nature is a socio-economic study. May be reformulated as a CRP.
HH5	India	Regional Radiotherapy Incident Programme for Comprehensive improvement in quality of patient care and safety by collective Education and Reporting (RIPCER) under the umbrella of IAEA/SAFRON.	No further development	The link with RCA MTS is not clear. Other resources to can be mobilized to enrich the database of SAFRON.

HH6	Malaysia	Establishing a sustainable system for recognition of medical physicist profession	No further development	The concept is indirectly related to medical physics, but the scope of the project is beyond RCA's activities.
HH7	Malaysia	Monitoring radioactivity in food and drinking water	No further development	The project is not in a priority area of the MTS 2018-2023.
HH8	China	Improving the Safety and Quality of Radiotherapy in Asia-Pacific Region through Medical Physicist Training and Auditing	Proceeding to formulate as a Concept merging with Pre-Concepts on "Strengthening radiation medicine by enhancing the clinical training of medical physicists through regional cooperation" proposed by Australia (HH10) and "Quality audit and training on advanced radiotherapy treatment in Asia-Pacific" proposed by Australia (HH12) is recommended.	Duplication should be avoided with ongoing RCA Project "Enhancing Medical Physics Services in Developing Standards, Education and Training through Regional Cooperation" (RAS/6/087)
HH9	Cambodia	Strengthening Cancer Management Programmes in RCA States Parties in Collaboration with Oncology Societies	No further development	The objective is very similar to that of the ongoing RCA Project "Strengthening Cancer Management Programmes in RCA States Parties through Collaboration with National and Regional Radiation Oncology Societies" (RAS/6/086).
HH10	Australia	Strengthening radiation medicine by enhancing the clinical training of medical physicists through regional cooperation	Proceeding to formulate as a Concept merging with Pre-Concepts on "Improving the Safety and Quality of Radiotherapy in Asia-Pacific Region through Medical Physicist Training and Auditing" proposed by China (HH8) and "Quality audit and training on advanced radiotherapy treatment in Asia-Pacific" proposed by Australia (HH12) is recommended.	Duplication should be avoided with ongoing RCA Project "Enhancing Medical Physics Services in Developing Standards, Education and Training through Regional Cooperation" (RAS/6/087)

HH11	China	Improving the Diagnostic Accuracy and the Therapeutic Effectiveness in Common Malignant Tumors by New Nuclear Techniques in Asia Pacific Region	No further development.	The focus of the Concept is same as that of the ongoing RCA Project “Strengthening Capacity to Manage Non-Communicable Diseases Using Imaging Modalities in Radiology and Nuclear Medicine” (RAS/6/093).
HH12	Australia	Quality audit and training on advanced radiotherapy treatment in Asia-Pacific	Proceeding to formulate as a Concept merging with Pre-Concepts on “Improving the Safety and Quality of Radiotherapy in Asia-Pacific Region through Medical Physicist Training and Auditing” proposed by China (HH8) and “Strengthening radiation medicine by enhancing the clinical training of medical physicists through regional cooperation” proposed by Australia (HH10) is recommended.	Duplication should be avoided with ongoing RCA Project “Enhancing Medical Physics Services in Developing Standards, Education and Training through Regional Cooperation” (RAS/6/087)
HH13	Korea	Strengthening Comprehensive Adaptation of Hypofractionated Radiotherapy from Physics to Clinic in the RCA Region	Proceed to formulate as a Concept	The definition of hypofractionated radiotherapy should be clearly defined, and its advantage and challenges (disadvantages) should be carefully evaluated and described.
HH14	Japan	Improvement and standardization of radiotherapy in palliative care in the RCA Region	Proceed to formulate as a Concept	Significance of radiotherapy in palliative care and its benefit should be highlighted more clearly if the design moves further into concept stage.
HH15	Japan	Construction and execution of on-site team support for start-up facilities of high-precision radiotherapy with high quality medical, technology, and team medical care in Asia-Pacific countries	No further development	Recommend implementation of this project after specific needs of the GPs are determined through a comprehensive audit as proposed in Pre-Concept on “Quality audit and training on advanced radiotherapy treatment in Asia-Pacific” (HH12)

**Thematic Sector:** Industry

	<b>GP</b>	<b>Title</b>	<b>Recommendation</b>	<b>Comment</b>
IN1	India	Development of radiation processed polymer composites for electrical and sensing applications	No further development	The project is research oriented and not for transfer of a well-developed technology. Could be considered for a CRP.
IN2	India	Integrated capacity augmentation in regional infrastructure and expertise in composite non-destructive evaluation modalities for sustainable societal growth (RCA 2022-2023)	Proceed to formulate as a Concept merging with the Pre-Concept titled “Enhancing regional capabilities in advanced non-destructive testing (NDT) techniques and applications for improved safety and inspection performance in industries” proposed by Malaysia(IN4)	The title should be concise, clear and reflect the objectives of the project.  Digital Industrial Radiography had been covered in the previous and current RCA Projects RAS/1/022, RAS/1/020, RAS/1/013, RAS/8/110. The recommendation to proceed is subject to addressing specific gaps of previous projects. The Concept Paper should highlight the specific gaps to be addressed in relation to the outcomes and achievements of the previous RCA Projects
IN3	India	Development and applications of radioisotope techniques for investigation of flow dynamics and design validation of complex industrial and environmental systems	Proceed to formulate as a Concept merging with the Pre-Concept titled “Strengthening and consolidating the capabilities of RCA Government Parties in application of emerging radioisotope techniques for efficiency improvement in industrial systems” proposed by Pakistan (IN9)	The previous RCA project RAS/1/012 had been on investigation of process dynamics in complex industrial systems with radiotracers. The recommendation to proceed is subject to addressing specific gaps of this project. The Concept Paper should highlight the specific gaps to be addressed in relation to the outcomes and achievements of RAS/1/012.
IN4	Malaysia	Enhancing regional capabilities in advanced non-destructive testing (NDT) techniques and applications for improved safety and inspection performance in industries	Proceed to formulate as a Concept merging with the Pre-Concept titled “Integrated capacity augmentation in regional infrastructure and expertise in composite non-destructive evaluation modalities for sustainable societal growth (RCA 2022-2023)” proposed by India. (IN2)	Digital Industrial Radiography had been covered in the previous and current RCA Projects RAS/1/022, RAS/1/020, RAS/1/013, RAS/8/110. The recommendation to proceed is subject to addressing specific gaps of previous projects. The Concept Paper should highlight the specific gaps to be addressed in relation to the outcomes and achievements of the previous RCA Projects

IN5	Malaysia	Promoting the Application of Radiation To Support Agriculture and Aquaculture Activities	No further development.	The principle focus is research rather than technology transfer.
IN6	Malaysia	The Application of Radiation Processing Technology in Producing Smart Coating Materials	No further development	The project is research oriented and not for transfer of a well-developed technology. Could be considered for a CRP.
IN7	Malaysia	Quality Management Practices at Radiation Processing Facilities	Proceed to formulate as a concept.	
IN8	Mongolia	Development of 3D printed nucleonic gauges for mining industry	No further development	The project is research oriented and not for transferring a well-established technology. It is not in a priority area of the MTS2019-2023.
IN9	Pakistan	Strengthening and consolidating the capabilities of RCA Government Parties in application of emerging radioisotope techniques for efficiency improvement in industrial systems	Proceed to formulate as a Concept merging with the Pre-Concept titled "Development and applications of radioisotope techniques for investigation of flow dynamics and design validation of complex industrial and environmental systems" proposed by India.(IN3)	The recommendation to proceed is subject to addressing specific gaps of previous RCA Projects RAS/8/111, RAS/8/107, RAS/8/099 and areas not covered by them. The Concept Paper should highlight the specific gaps to be addressed in relation to the outcomes and achievements of these projects.

**Thematic Sector:** Radiation Safety

	<b>GP</b>	<b>Title</b>	<b>Recommendation</b>	<b>Comment</b>
RS1	Republic of Korea	Strengthening Medical Preparedness and Response for a Nuclear/Radiological Emergency in the RCA Region	Proceed to formulate as a Concept	This project is a logical extension of the current project on “Strengthening the Capacity to Respond to Radiological Emergencies of Category II and III Facilities in the Asia-Pacific region” implemented with EB funds. However, in view of the TC support provided to IAEA Member States in the Asia-Pacific Region on Radiation Safety over a long period of time through non-RCA Regional Projects, the recommendation for further development of the project is subject to addressing specific gaps and needs in RCA GPs, taking into consideration the outcomes and achievements of non-RCA Projects on Medical Response to Radiological / Nuclear Emergencies. A thorough stakeholder analysis should be performed in further development of the project.
RS2	Australia	Developing theoretical and technical capabilities in Occupational Radiation Protection	Proceed to formulate as a Concept	In view of the TC support provided to IAEA Member States in the Asia-Pacific Region on Radiation Safety over a long period of time through non-RCA Regional Projects, the recommendation for further development of the project is subject to addressing specific gaps and needs in RCA GPs, taking into consideration the outcomes and achievements of non-RCA Projects on Occupational Radiation Protection. A needs analysis and assessment need to be performed in further development of the project
RS3	Peoples Republic of China	Strengthening Regional Cooperation on Treatment Method and Radiation Protection of Tritiated Waste from Nuclear Facilities in Asia Pacific Region	Proceed to formulate as a concept	The recommendation to proceed is subject to a) establishing the linkage to MTS for 2018-2023 b) demonstration of a regional need and c) verification that this project area had not been covered in non-RCA projects on Radiation Safety.

## Action Plan for the Development of the RCA Programme for 2022/2023 TC Cycle

Dates	Actions to be required
13 Sep 2019	At the 48 <sup>th</sup> RCA GCM, NRs will select those Pre-Concepts to be developed further as 1 <sup>st</sup> Round Concept Proposals
20 Sep 2019 ~ 14 Nov 2019	Preparation of 1 <sup>st</sup> Round Concept Proposals by NRs
15 Nov 2019	Deadline for receipt by Chair RCA PAC of 1 <sup>st</sup> Round Concept Proposals from the NRs
16 Nov 2019 ~ 30 Nov 2019	RCA PAC Members review 1 <sup>st</sup> Round Concept Proposals and send to Chair RCA PAC by 30 Nov deadline
1 Dec 2019 ~ 3 Dec 2019	Chair RCA PAC consolidates the RCA PAC reviews and provides feedback to submitting NRs
4 Dec 2019 ~ 15 Jan 2020	NRs prepare 2 <sup>nd</sup> Round Concept Proposals
16 Jan 2020	NRs submit 2 <sup>nd</sup> Round Concept Proposals to Chair RCA PAC
One week in Jan or Feb 2020	RCA PAC Meeting to review 2 <sup>nd</sup> Round Concept Proposals and prepare report to the 42 <sup>nd</sup> RCA NRM
April or May 2020	Chair RCA PAC presents the Concept Review Report at the 42 <sup>nd</sup> RCA NRM. NRs will prioritize and select 2 <sup>nd</sup> Round Concepts to be developed further as draft Project Designs and assigns LCCs