

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

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Summary of the Pre-Concepts received

Thematic Sector	Number	Government Parties
Agriculture	12	AUL(2), BGD(1), CPR(1), IND(2) , INS(1), KAM(1), MAL(1), PAK(1), SRL(1), VIE(1)
Energy Planning	1	CPR(1)
Environment	6	IND(1), INS(1), MON(1), PAK(1), THA(1), VIE(1)
Human Health	15	AUL(2), CPR(2), IND(2), JPN(2), KAM(1), MAL(2), ROK(1), THA(2), VIE(1)
Industry	9	IND(3), MAL(4), MON(1), PAK(1)
Radiation Safety	3	AUL(1), CPR(1), ROK(1)
Total	46	

Evaluation Criteria

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

A number of Pre-Concepts are in project areas of previous and current RCA Projects and the outcomes and achievements of these projects should be taken into consideration in further development of these Pre-Concepts

Summary of the Recommendations of PAC

Thematic Sector	Number of Pre-Concepts	Proceed to formulate as a Concept	Proceed after merging	No further development	No. of Concepts
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
Total	46	12	11	23	17

Details of the Recommendations

Agriculture Sector

Pre-Concepts to be developed further

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

Agriculture Sector

Pre-Concepts to be merged

Set 1

Assessing and mitigating agro-contaminants to improve soil and water quality in catchments using nuclear and isotopic techniques (AUL)

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)

Agriculture Sector

Pre-Concepts to be merged

Set 2

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)

Development of suitable nuclear analytical techniques for food adulterants (IND)

Energy Planning Sector

Pre-Concepts to be developed further

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

Environmental Sector

Pre-Concepts to be developed further

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

Human Health Sector

Pre-Concepts to be developed further

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

Human Health Sector

Pre-Concepts to be merged

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

Industrial Sector

Pre-Concepts to be developed further

- Quality Management Practices at Radiation Processing Facilities (MAL)

Pre-Concepts to be merged

Set 1

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

Industrial Sector

Pre-Concepts to be merged

Set 2

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

Radiation Safety Sector

Pre-Concepts to be developed further

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

PAC has provided detailed comments on each of the Pre-Concepts in Annex B of the Background Paper

Annex C of the Background Paper contains the timeframe for the development of the program for 2022/23.