

**RCA Programme Advisory Committee (PAC)**

**Report on the Evaluation of Pre-Concepts for the 2024/2025 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 RCA GPs were invited to submit Pre-Concepts by the RCA Chair on the 17<sup>th</sup> of May 2021. The following documents were made available to the facilitate submission of project proposals conforming to the RCA TC criteria.

- a) The RCA Programme Framework for 2024/29
- b) Details of past RCA Projects
- c) The Report of the Survey conducted to identify the regional priorities

A copy of the instructions provided is attached as Annex A.

The RCA GPs submitted 46 Pre-Concepts before the stipulated deadline of 1<sup>st</sup> of August and 4 Pre-Concepts after the deadline. They comprised 11 Pre-Concepts on Agriculture, 2 on Energy Planning, 9 on Environment, 20 on Human Health, 6 on Industry, 1 on Radiation Safety, and 1 on Nuclear Security. 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 50<sup>th</sup> RCA GCM for its recommendations.

**Main Observations:**

- A large number of Pre-Concepts were not in the priority areas of the RCA Regional Programme Framework for 2024-29. Some Pre-Concepts referred to the Strategic Priorities of the RCA MTS for 2017-2023.
- A few Pre-Concepts addressed a national need rather than a regional need.
- Several Pre-Concepts had been developed without consultations with the other GPs
- The nuclear technology to be used was not clear in some of the Pre-Concepts
- The focus of a few Pre-Concepts was research rather than technology transfer
- A large number of Pre-Concepts that were in areas of previous RCA Projects had no reference to the past projects and their outcomes had not been taken into consideration
- Some Pre-Concepts were technology driven rather than needs driven

**The quality of the Pre-Concepts could be improved through improved guidance by the RCA NRs and National Thematic Sector Coordinators to the proposers of the Pre-Concepts.**

**Evaluation Criteria:**

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

- Conformity to the priority areas of the RCA Regional Programme Framework for 2024-29
- Whether the Pre-Concept addresses a regional need
- The role of nuclear technology
- Whether the Pre-Concept is focused on technology transfer or research
- Whether due consideration was given to the outcomes and achievements of the previous RCA projects in the same area.

**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 B and the details of the evaluation are given in Annex C. Annex C also contains issues to be addressed in further development of the recommended projects and comments on the Pre-Concepts that were not recommended.

Thematic Sector	Number of Pre-Concepts	Proceed to formulate as a Concept	Proceed after merging	No further development	No. of Pre-Concepts to be further developed
Agriculture	11	3	0	8	3
Environment	9	3	2	4	4
Human Health	20	5	5	10	7
Industry	6	3	0	3	3
Other areas				0	0
Radiation Safety	1	1	0	0	1
Energy Planning	2	0	0	2	0
Nuclear Security	1	0	0	1	0
<b>Total</b>	<b>50</b>	<b>15</b>	<b>7</b>	<b>28</b>	<b>18*</b>

\*Without the restriction of two Concepts per GP.

**Proposed Action**

- Decision on the Pre-Concepts to be developed further
- Appointment of LCs for drafting Project Concepts for consideration at the next NRM, in accordance with the procedure for Development of RCA Projects, outlined in Annex 8 of the GOR. \* \*
- The NRs of the LCs are requested to provide the comments of the PAC contained in this paper to the appointed LCCs, including the recommendations for merger of Pre-Concepts on similar topics. (These comments should be taken into consideration in preparing the Project Concepts)

**\*\*Please note that according to the GOR, no more than two Concept Proposals shall be submitted by any GP.**

**Instructions for Proposers of Pre-Concepts for the RCA Programme for 2024/25**

As per approved procedures for development of RCA Projects implemented under the TC programme of the IAEA, Pre-Project Concepts are hereby invited from the RCA Government Parties.

All Pre-Concepts have to be endorsed by the RCA National Representative of the RCA Government Party submitting the Pre-Concept. The template for preparation of the Pre-Concepts is appended.

The Pre-Concepts should be uploaded on the RCA web-site. Instructions for uploading the Pre-Concepts will be provided by the RCARO in due course.

The following documents are available to assist the proposers of the Pre-Concepts

- a) The RCA Programme Framework for 2024/29
- b) Details of past RCA Projects
- c) The Report of the Survey conducted to identify the regional priorities

These documents can be downloaded from <http://rcaro.org/projectdocs/view/id/22729>

The Pre-Concepts should be in priority areas of the RCAGPs that are outlined in the RCA Regional Programme Framework (RPF) and should be prepared taking into consideration the achievements and outcomes of previous RCA projects, where relevant. Pre-Concepts in areas of new needs that did not exist at the time of the preparation of the RPF can be entertained only with a strong justification. The Pre-Concepts should conform to the criteria for RCA and TC projects and the RCA Strategic Directions given in pages 5 and 6 of the RPF.

It is recommended the proposers of the Pre-Concepts consult their counter-parts in other RCA GPs to obtain their views on the proposal and to avoid duplication. Information on RCA stakeholders can be found in the RCA web-site (<http://rcaro.org>), under Projects/Project Information. It is also recommended the proposers check the RCA web-site for duplications and take action through the respective NRs to look into the possibility of submitting combined Pre-Concepts.

**The deadline for submission of the Pre-Concepts is 1<sup>st</sup> of August 2021.**

You may consult the Chairman of the RCA Programme Advisory Committee, Dr. Prinath Dias at [prinathd@yahoo.com](mailto:prinathd@yahoo.com) if you need any clarifications. .

## **Agricultural Sector**

### Pre-Concepts to be developed further

1. Improved harmonization of food safety legislation to increase the adoption of phytosanitary irradiation in the Asia Pacific Region (AUL)
2. Enhancing Regional Laboratory Capabilities to Generate Reliable Data on Multi-Chemical and Associate Microbial Hazards in Food (PAK)
3. Mutational Bio-fortification for Improving the Nutritional Quality of Food Crops in Asia and the Pacific Region (CPR)

## **Environmental Sector**

### Pre-Concepts to be developed further

1. Impact of COVID-19 pandemic on the chemical compositions, sources, and health relevance of fine particulate matter in the Asia Pacific (INS)
2. Enhancing Regional Capability to Study the Impact of Climate Change on Water Resources using Isotopic Techniques (PAK)
3. Application of isotope techniques for evaluating the efficacy of artificial recharge to groundwater in water scarce RCA region (IND)

### Pre-Concepts to be merged

1. Strengthening Radiological Dose and Risk Assessment Capabilities in Economic Marine Species and Seafood Consumers due to Emerging Threats in the Asia-Pacific Region (THA)
2. Application of Advanced Radio Isotope Monitoring Techniques in the Optimization of Marine Radiation Monitoring Network in the Asia Pacific Region (CPR)

## **Human Health Sector**

### Pre-Concepts to be developed further

1. Strengthening cancer care and research by training radiation oncology health professionals in RCA Member States in data collection through radiation oncology electronic management systems (AUL)
2. To implement Quality Management Systems and Quality Assurance programs in Nuclear Medicine Practices in developing countries by providing education, leadership and training support (AUL)
3. Strengthening and empowering the role of radiology medical physics services in clinical practice through regional cooperation (AUL)
4. Enhancing the Capability of Medical Physicists in Performing Advanced Radiotherapy Dosimetry Audit via Establishment of Inter-Regional Dosimetry Audit Network (MAL)
5. Improving the Radiotherapy Capacity of Newcomer RCA Governmental Parties (JPN)

### Pre-Concepts to be merged

#### Group 1

1. Introducing Theranostics In Nuclear Medicine (AUL)
2. Improving Treatment of Cancer through Theranostics in the RCA Region (PAK)

#### Group 2

1. Enhancing and Strengthening Qualification and Capability of the Radiopharmaceutical Staff of the Member States through Education, Training and Practice (THA)
2. Enhancing Capacity and Capability for the Production of 18F-based Radiopharmaceuticals for Targeted Bioactive Molecules (MAL)
3. Diagnostic Radiopharmaceuticals development and clinical application for brain disease in response to an aging society (ROK)

### **Industrial Sector**

#### Pre-Concepts to be developed further

1. Radiation Processing Applications for Wastewater Treatment and Recycling in the Asia-Pacific Region (CPR)
2. Enhancing capacity of applying artificial intelligence (AI) to Interpretation of radiographs in industrial radiography testing in the RCA region (VIE)
3. Augmentation of regional NDT resources based on nuclear and related techniques for industrial growth and societal benefits (IND)

### **Other Areas**

#### Radiation Protection

#### Pre-Concepts to be developed further

1. Developing theoretical and technical capabilities in Occupational Radiation Protection (AUL)

## Annex C

### Agriculture

Code	GP	Title	Recommendation	Comments
AGR 1	AUL	Research and development into insect pest control using nuclear and area wide methodologies.	Not Recommended	Not a priority area identified in the RPF
AGR 2	AUL	Improved harmonization of food safety legislation to increase the adoption of phytosanitary irradiation in the Asia Pacific Region	Recommended	Due consideration should be given to outcomes of RAS5050 and RAS5057 in further development of the project. Suggest “Harmonization of food safety legislation to increase the adoption of phytosanitary irradiation in the Asia Pacific Region” as the title.
AGR 3	VIE	Reducing greenhouse gas emissions, enhancing soil quality and crop productivity by implementing soil carbon sequestration initiatives using nuclear and isotopic techniques	Not Recommended	The project is not in a priority area of the RPF and the justification provided cannot be considered satisfactory.
AGR 4	VIE	Assessing the nitrogen fixation in the intercropping with legumes system by <sup>15</sup> N natural abundance technique to improve nitrogen fertilizer use efficiency in sloping cultivation in the RCA region	Not Recommended	Not a priority area of the RPF. The project is on studying nitrogen fixation using N-15, a technique that was introduced to RCA GPs many years ago.
AGR 5	PAK	Development of mungbean genotypes having high yield potential, genetic resistance against diseases and multi-environment adaptability for the sustainability of increased production in the Asia Pacific Region	Not Recommended	There is a high degree of duplication with the previous RCA Projects RAS 5040 and RAS 5045 without new additional components. The last two objectives have been achieved through the well-established Network AOAPM through the previous project RAS 5045 to the current RAS 5088.
AGR 6	PAK	Regional surveillance and	Not Recommended	The diseases of rice mentioned in the Pre-Concept are not emerging but

Code	GP	Title	Recommendation	Comments
		management of emerging rice diseases by adopting integrated approach in the Asia Pacific Region		common for most of the GPs , and what is more important, the proposal is to address surveillance and management by adopting integrated approaches rather than through developing new disease resistant variety. The content mentioned in the pre-concept highly duplicated with the previous projects RAS 5045 (stress tolerance improvement) and RAS 5077 (green variety with improved disease resistance)
AGR 7	PAK	Enhancing Regional Laboratory Capabilities to Generate Reliable Data on Multi-Chemical and Associate Microbial Hazards in Food	Recommended	The project is in a specific area identified in the RPF. But, the previous project mentioned (RAS5078) is not an RCA Project and the status of the RCA GPs that did not participate in RAS5078 but wish to participate in the proposed project should be clarified. The challenges of food safety and testing capabilities still need to be elaborated and discussed with more focus. Need to spell out the testing capabilities and the food safety challenges to be addressed.
AGR 8	CPR	Mutational Bio-fortification for Improving the Nutritional Quality of Food Crops in Asia and the Pacific Region	Recommended	The pre-concept addresses a new aspect of food crop improvement, namely nutrition quality (special terminology: bio-fortification) to resolve the poor diets and inadequate nutritional intake, by mutation techniques. Further information on the details of nutritional components to be improved is needed.
AGR 9	MAL	Development of capacity building using stable isotope and related techniques for food authenticity to support national agenda of food safety and security.	Not Recommended	There is a high degree of duplication with the current project RAS5081 (Use of Advanced Nuclear Techniques for Verifying Food Authenticity). The proponent has not considered the objectives and expected outcomes of this project in preparing the Pre-Concept.
AGR 10	MAL	Improving nutritional and other important quality traits of high yielding mutants using mutation breeding and related techniques for food and nutrition security.	Not Recommended	This is a general project on radiation induced mutation plant breeding, and there had been a number of projects on this topic in the past. There is no reference to past achievements and how this project will be built on the outcomes of previous projects. The other GPs have not been consulted.
AGR 11	VIE	Breeding high nutrition and quality for major crops by mutation, biotechnology and genetic resources exchange	Not Recommended	Duplication with the previous project RAS 5045(Improvement of Crop Quality and Stress Tolerance for Sustainable Crop Production Using Mutation Techniques and Biotechnology) and RAS5088 (Enhancing Crop Productivity and Quality through Mutation by Speed Breeding) without any new elements.

## Environment

Code	GP	Title	Recommendation	Comments
ENV 1	INS	Impact of COVID-19 pandemic on the chemical compositions, sources, and health relevance of fine particulate matter in the Asia pacific	Recommended	The Project Concept should be built on past efforts and clearly identify the expected socio-economic impact. It should justify the need for this project in view of the expertise generated through previous projects.
ENV 2	NEP	Monitoring and Quantifying the Impact of Wildfires on Air quality in Asian Region	Not recommended	The objective of the project is not clear. It is not clear how monitoring the quality of air particulate resulting from wildfires will be useful in the management of biomass burning. The health impacts from biomass burning are sufficiently documented that is why national environmental regulations ban this practice.
ENV 3	PAK	Enhancing Regional Capability to Study the Impact of Climate Change on Water Resources using Isotopic Techniques	Recommended	The Project Concept should be prepared taking the following into consideration. The title should be changed. Suggest "“Enhancing Understanding of the Impact of Climate Change on the quantity of major water fluxes in the hydrologic cycle using Isotopic Techniques””. Need to map the cause-effect relationship between global warming and the parameters to be investigated. It is necessary to add an explanation whether historical data is available for each GPs and how it is correlated with this proposed project, especially on global warming. The project should be built on previous RCA projects on water resources management and with due consideration to the capabilities the RCA GPs can be expected to have, as a result of the previous RCA projects.
ENV 4	THA	Strengthening Radiological Dose and Risk Assessment Capabilities in Economic Marine Species and Seafood Consumers due to Emerging Threats in the Asia-Pacific Region	Recommended with merger (ENV 6)	Should be merged with ENV6. Since the capability of monitoring marine radioactivity has been developed under RAS7028, what additional capabilities are required to meet the objective of this project should be stated. The purpose of the use of radiotracers should be clarified. How more tritium data would improve risk assessment should be clarified.
ENV 5	CPR	Use of Isotope Techniques for Sustainable Geothermal Resources Development in the Asia and Pacific Region	Not recommended	The project is not in a priority area of the RPF. There is no reference to the previous project on Geothermal Energy.
ENV 6	CPR	Application of Advanced Radio Isotope Monitoring Techniques in	Recommended with merger (ENV 4)	Should be merged with ENV4. The Concept should be developed taking into consideration the expertise developed through RCA Project RAS7028.



Code	GP	Title	Recommendation	Comments
		the Optimization of Marine Radiation Monitoring Network in the Asia Pacific Region		
ENV 7	CPR	Enhancing Regional Capabilities for Marine Microplastics Monitoring and Evaluation Using Nuclear and Isotopic Techniques in the Asia Pacific Region	Not recommended	The nuclear technology to be used is not mentioned. One of the goals of the project is to “establish” isotope methods for detecting micro-plastic pollution. Could be more appropriate as a CRP.
ENV 8	PHI	Application of I-129 and other radionuclides for reconstructing impacts of past human nuclear activities and as oceanographic tracer	Not recommended	The project is a good research study and cannot be expected to lead to any socio-economic benefits. The Pre-Concept does not contain the endorsement of the NR.
ENV 9	IND	Application of isotope techniques for evaluating the efficacy of artificial recharge to groundwater in water scarce RCA region	Recommended	The Project Concept should contain information on the RCA GPs that practice artificial ground water recharge or have plans to do so. It should also describe how this project would be built on previous projects on isotope hydrology.

### Human Health

Code	GP	Title	Recommendation	Comments
HH 1	AUL	Introduction To Clinical Positron Emission Tomography	Not recommended	The pre-concept is related to the general field of nuclear medicine in RPF, but it is very generic (PET) without specific focus. There have been a number of past RCA projects dealing with clinical applications of PET including introduction to clinical PET( RAS6049, RAS6061 and RAS6063.) It is not developed based on the outcomes and achievements of these projects and the current pre-concept seems to duplicate the past efforts. The nature of described activities (individual team training of 6-12 weeks in Australia) does not fit the nature of the RCA projects
HH 2	AUL	Strengthening cancer care and research by training radiation oncology health professionals in RCA Member States in data collection through radiation oncology electronic management	Recommended	The need for a project to train on the use of a data management system needs to be verified. The benefits to be gained by sharing data among GPs should be identified. The alignment with the future directions of the RPF needs to be improved. The Project Concept should address these issues.

Code	GP	Title	Recommendation	Comments
		systems		
HH 3	AUL	Introducing Theranostics In Nuclear Medicine	Recommended with merger (HH6)	The Project Concept should be developed following merger with HH6 of Pakistan. The proposed training periods of 6-12 weeks is not be feasible under RCA mechanisms. The project Concept should be developed with due consideration of the RCA mechanisms.
HH 4	AUL	Strengthening and empowering the role of radiology medical physics services in clinical practice through regional cooperation	Recommended	There have been RCA projects on strengthening the capability of medical physicists including the field of radiology. It is recommended to develop the concept based on outcomes and achievements of past projects. The Project Concept should demonstrate there is no duplication with previous projects.
HH 5	AUL	To implement Quality Management Systems and Quality Assurance programs in Nuclear Medicine Practices in developing countries by providing education, leadership and training support	Recommended	Suggest "Implementation of Quality Management Systems and Quality Assurance programs in Nuclear Medicine Practices in developing countries" as the title. The Project Concept should be developed in consultation with the other GPs The project activities should be those that can be implemented under RCA mechanisms (RTCs, Expert missions and Meetings). The linkage with future directions of the relevant priority area in the RPF should be made clearer.
HH 6	PAK	Improving Treatment of Cancer through Theranostics in the RCA Region	Recommended with merger (HH3)	The Project Concept should be developed following merger with HH3. The sections regarding new technical area, continuation of a previous project, consultation with other stakeholders are missing from the pre-concept. The project should be developed with due consideration of the outcomes of previous projects, and in consultation with the stakeholders of other GPs.
HH 7	PAK	Strengthening the use of IMRT in Cervical Cancer in Asia Pacific Region	Not recommended	The focus of the pre-concept is rather narrow, application of one technology (IMRT) in the external beam radiotherapy of cervical cancer. An RCA project on implementation of IMRT has been implemented previously, and the relationship to the project is not really addressed in the pre-concept. There needs to be a wider focus for one RCA project. IMRT, IGBT and cervical cancer have been covered in the previous RCA Projects RAS6072, RAS6085, RAS6086 and RAS6062.
HH 8	PAK	Strengthening usage of Stereotactic Ablative Body Radiotherapy (SABR) in the	Not recommended	The technology, SABR, is the same as SBRT, of which RCA has implement projects previously. There is not much difference except that this pre-concept focuses on oligometastases. A total of 110 Radiation Oncologists, Medical Physicists and Radiation

Code	GP	Title	Recommendation	Comments
		treatment of Oligometastatic disease (Pulmonary, Hepatic or Spinal Metastasis) in Asia Pacific Region		Therapists have been trained on SBRT under RCA Projects RAS6065 and 6085.
HH 9	PAK	Strengthening the usage of Stereotactic Radiotherapy in the treatment of brain metastasis in Asia Pacific Region	Not recommended	There have been two consecutive RCA projects on Stereotactic RT(2012~2019) and brain metastasis was included in project activities. With the current contents, it seems to duplicate recent past projects.
HH 10	ROK	Establishing an Asia-Pacific Regional Network in Radiation Medicine to Overcome Women's Cancers (RCA	Not recommended	The objective/scheme of the pre-concept is very vague and not focused. Although the pre-concept mentions about areas which are included in the future directions of RPF, they are simply mentioned and loosely tied to each other, and it is difficult to imagine that a project can be formed without more focused targets/scheme.
HH 11	ROK	Diagnostic Radiopharmaceuticals development and clinical application technology for brain disease in response to an aging society	Recommended with merger (HH12 and HH17)	This Pre-Concept is in line with both priority 3 & 4 of future directions of Nuclear Medicine of the RPF. However, the description of the project is not detailed enough. The Project Concept should be developed merging with HH12 and HH17.
HH 12	THA	Enhancing and Strengthening Qualification and Capability of the Radiopharmaceutical Staff of the Member States through Education, Training and Practice	Recommended with merger (HH11 and HH17)	The Project Concept should justify the need for this project in view of the ongoing RCA Project RAS6097 - Enhancing Capacity and Capability for the Production of Cyclotron-Based Radiopharmaceuticals (RCA). It should be built on the outcomes of this project if the need can be justified and should be merged with HH11 and HH17. This pre-concept states that there has been no IAEA project on radiopharmaceuticals, which is incorrect.
HH 13	VIE	Enhancing capacity of applying artificial intelligence (AI) to treatment planning systems in RCA region.	Not recommended	Application of AI in radiotherapy planning (medical physics) is still in a research or very early stage of application, it will be rather educational or research purpose rather than technology transfer purpose. Adding an activity to HH18 on creating awareness on the use of AI in treatment planning has been recommended.
HH 14	PHI	Enhancing the Quality of Radiation Planning in Spine Stereotactic Body Radiation Therapy in Developing Countries.	Not recommended	There have been two consecutive RCA projects on SBRT(2012~2019) and spine tumor was included in project activities. Although this pre-concept focuses on only contouring for spine SBRT, it seems to duplicate recent past projects. A total of 110 Radiation Oncologists, Medical Physicists and Radiation Therapists have been trained on SBRT under RCA Projects RAS6065 and 6085. The project is described as a national project for the proposing GP.

Code	GP	Title	Recommendation	Comments
HH 15	CPR	Improving Hypofractionation Radiotherapy Utility Through Standardized Protocols and Advanced QA/QC Management in the Asia-Pacific Region	Not recommended	A new 4 year RCA project on hypofractionation RT is expected to be approved for 2022/23 TC cycle. It is too early to develop another concept on hypofractionation RT.
HH 16	MAL	Developing Radiobiology Education And Research Capacity Within the RCA Region	Not recommended	This is not in line with future directions specified in the RPF. There needs to be a strong justification. The area (radiobiology education/research) is important, but achieving all the aims described in the pre-concept seems to be extremely difficult within the activities of an RCA project. A socio-economic impact cannot be expected.
HH 17	MAL	Enhancing Capacity and Capability for the Production of 18F-based Radiopharmaceuticals for Targeted Bioactive Molecules	Recommended with merger (HH11 and HH12)	The Project Concept should justify the need for this project in view of the ongoing RCA Project RAS6097 - Enhancing Capacity and Capability for the Production of Cyclotron-Based Radiopharmaceuticals (RCA). It should be built on the outcomes of this project if the need can be justified and should be merged with HH11 and HH12.
HH 18	MAL	Enhancing the Capability of Medical Physicists in Performing Advanced Radiotherapy Dosimetry Audit via Establishment of Inter-Regional Dosimetry Audit Network (RCA)	Recommended	There have been RCA projects on enhancing the capability of medical physicists in performing radiotherapy dosimetry audit. It is recommended to develop the concept based on outcomes and achievements of past projects. This pre-concept can be developed in alignment with future directions of either radiation oncology or medical physics. If it is in line with future directions in radiation oncology, as currently described, stronger justification would be necessary. The Project Concept should address these issues. Consider adding one activity to create awareness on the use of Artificial Intelligence (AI) in treatment planning (with reference to Pre-Concept HH13)
HH19	JPN	Improving the Radiotherapy Capacity of Newcomer RCA Governmental Parties	Recommended	The Project Concept should be developed in consultation with the new GPs. Should explore TCDC opportunities to the maximum possible extent. Newcomer RCA GPs have participated in some past RCA projects in radiation oncology and medical physics. The trained professionals through the past projects could be the asset for this project.
HH20	IND	Radiotherapy Incident Reporting Programme for Comprehensive improvement in quality of patient care and safety by collective Education and Training (RIPCET)	Not recommended	The objective of the project is to encourage RCA GPs to contribute to the SAFRON database of the IAEA, and to train GPs to do so. IAEA already has an online mechanism for training on SAFRON. The project is not aligned with the RPF.

Code	GP	Title	Recommendation	Comments
		under the umbrella of IAEA/SAFRON.		

## Industry

Code	GP	Title	Recommendation	Comments
IND 1	PAK	Strengthening the capabilities of signal analysis, interpretation and database compliance of NDT methods for the assessment of critical components degradation in nuclear, conventional and industrial plants during In-Service Inspection in the Asia Pacific Region	Not recommended	The problem and objective of this concept is not clear. The relationship with the previous project is also not mentioned.
IND 2	PHI	Enhancing Capacity for Structural Integrity Inspection and Assessment of Civil Structures using Non-Destructive Testing (NDT) Techniques	Not recommended	The project is aimed at meeting a need of the proposing GP rather than a regional need. Previous and ongoing projects related to NDT in civil structures (RAS8110 and RAS1022) have not be taken into consideration.
IND 3	CPR	Radiation Processing Applications for Wastewater Treatment and Recycling in the Asia-Pacific Region	Recommended	The Project Concept should confirm this is a well-established technology.
IND 4	CPR	Improving Safety and Quality of Non-Destructive Testing in Asia and Pacific Region Through Modern Management Means and Regional Cooperation in Standard Development and Training of Industrial Radiography Personnel	Not recommended	The project is related to radiation safety which should be addressed through radiation safety / regulatory programmes.

Code	GP	Title	Recommendation	Comments
IND 5	VIE	Enhancing capacity of applying artificial intelligence (AI) to Interpretation of radiographs in industrial radiography testing in the RCA region.	Recommended	The title should be revised to reflect focus on nuclear technique than AI, i.e., AI is the enabler for better/ safer applications of nuclear techniques. Candidate AI methods should be identified in the Project Concept
IND 6	IND	Augmentation of regional NDT resources based on nuclear and related techniques for industrial growth and societal benefits (IND)	Recommended	The Project Concept should be developed in consultation with stakeholders of other GPs

## Other areas

### Radiation Protection

Code	GP	Title	Recommendation	Comments
RP 1	AUL	Developing theoretical and technical capabilities in Occupational Radiation Protection	Recommended	The project should be focused on new GPs since other GPs have received support under previous regional projects on occupational exposure control (RAS9064 and RAS9080) and national TC projects. Duplication with national projects of new GPs should be avoided. The project should be implementable with the level of financial resources available for RCA TC projects.

### Energy Planning

Code	GP	Title	Recommendation	Comments
EP 1	AUL	Developing fusion science human capacity in the Indo-Pacific	Not Recommended	The project is not in a priority area of the RPF. Could be considered for a Coordinated Research Project.
EP 2	VIE	Building R&D roadmap on Small Modular Reactor Technology and Safety towards a flexible power generation (RCA)	Not Recommended	The project is not in a priority area of the RPF. Could be considered for a Coordinated Research Project.

**Nuclear Security**

<b>Code</b>	<b>GP</b>	<b>Title</b>	<b>Recommendation</b>	<b>Comments</b>
NS 1	AUL	Leveraging Nuclear Science and Technology to Strengthen Border and Nuclear Security	Not recommended	<p>The project is not in a priority area of the RPF. Even though it is an important area, IAEA had been providing assistance to all MS on nuclear security through national and regional programmes (eg. RAS9038, RAS9051, RAS9060, RAS9070). These efforts could be expected to continue in the future.</p> <p>The urgent need for Nuclear Security and border control is not properly addressed although the benefits of applying non-intrusive inspection imaging and nuclear forensics techniques are explained.</p>