



Project Description for ARASIA TC Programme

TC Cycle 2020-2021

Project Number: RAS7036

Project Title: Promoting Networking and Enhancing Cooperation Among States Parties in Environmental Radiation Monitoring (ARASIA).

Overall Objective: To promote networking for monitoring radioactivity in different environmental compartments (terrestrial, marine, atmospheric) in ARASIA State Parties.

Project Duration: (2020 – 2021)

Project Description: Most of the Cooperative Agreement for Arab States in Asia for Research, Development and Training related to Nuclear Science and Technology (ARASIA) States Parties (SPs) have established technical capacity and physical infrastructure for environmental radiation monitoring purposes at various degrees of development and for different purposes. The objectives of the national monitoring programmes include the need to make assessments of doses to the public, preparedness to nuclear/radiological emergency situations, assessment of the radioactivity levels in the environment, maintaining scientific competence in the area of radioactivity measurements, and carrying out radiological research. An important step towards preparing the conditions for gradually achieving the long term strategic goal of integration among the various national programmes of ARASIA SPs within the region would be to promote best practices and guidelines for monitoring with the active technical support of the IAEA. This will be very beneficial to all SPs, whether a national monitoring programme has a focus on dose assessments, emergency preparedness or radioecological research. The development of best practices and the adoption of guidelines for monitoring by ARASIA SPs can act as a driver to gradually promote the voluntary harmonization and sharing of data among the country's monitoring programmes. Such an approach will lead to the enhanced quality of the monitoring programmes in the region and will be consistent with the long term goals for further harmonization and data sharing among the ARASIA SPs, eventually leading to the creation of an ARASIA database of baseline radionuclides in different environmental compartments. It is also suggested under the present project to develop appropriate guidelines that define for each sampling medium which key radionuclides should be measured and monitored as a minimum standard acceptable to all ARASIA SPs, including guidelines for the radionuclides of interest to be monitored during different types of radiological/nuclear emergency situations.

Problem to be addressed: There is little coordination regarding the exchange of radiological information among ARASIA SPs, in particular the reporting results of radiation monitoring programmes. Therefore, there is a need to harmonize the parameters



for each sampling media that is considered a priority by the majority of the ARASIA SPs. This is particularly needed for reporting of monitoring results and facilitating exchange of data across borders (for external gamma dose rate and air monitoring). Guidelines are needed that define for each sampling medium which key radionuclides should be measured and monitored as a minimum standard acceptable to all ARASIA SPs, including guidelines for the radionuclides of interest to be monitored during different types of radiological/nuclear emergency situations.

This project is proposed as a regional activity for the following reason(s): The ARASIA's Medium Term Strategy (MTS) emphasizes the importance of building and sustaining scientific competence in the area of radioactivity measurements and radiological research in ARASIA SPs, and stresses the need to develop adequate regional capabilities through networking and cooperation among ARASIA SPs for monitoring radioactivity levels in the environment, making assessments of doses to the public and preparedness to nuclear/radiological emergency situations. The regional approach under the proposed project would provide the possibility for networking and direct exchange of experiences and good practices amongst the participating counterpart institutions.

Stakeholders: In each ARASIA SP, there are stakeholders and role players that can support and/or benefit from such a project. In Kuwait, the Radiation Protection Department (RPD), Ministry of Health, and the Kuwait Institute for Scientific Research (KISR) collect the data of radioactivity concentrations in different environmental compartments, in addition to the continuous monitoring of the ambient radiation dose. Similar stakeholders' involvement and coordination mechanisms exist in other ARASIA SPs. Relevant national authorities, regulatory bodies, government agencies, emergency response authorities, research organizations, and the public at large in the region will benefit from the project. Every effort will be made to ensure that the concerned parties are actively engaged in the project through providing them with an insight of its importance and overall benefits.

Partnerships: In each participating ARASIA SP, it is expected that the main counterpart institution will develop scientific and technical partnerships with other relevant national institutions. Effective partnership ties and collaborative arrangements will be worked out as appropriate between relevant national authorities, relevant government agencies and research organizations within the region.

Role of nuclear technology: The IAEA has been helping the ARASIA SPs through technical cooperation (TC) projects at different degrees in developing their national capabilities for detection and monitoring of radiation levels in terrestrial, atmospheric and marine environments. It would be expected that the role of the IAEA in this project focuses on supporting the following: (1) Enhancing technical institutional capabilities; (2) promoting good practices and developing guidelines for use by ARASIA SPs; and (3) facilitating networking and data exchanges among ARASIA SPs, as appropriate.