

Project Progress Assessment Report -RAS1022

Basic Information

Project Number:	RAS1022
Project Title:	Strengthening Regional Capacity in Non-Destructive Testing and Examination Using Nuclear and Related Techniques for Safer, Reliable, More Efficient and Sustainable Industries Including Civil Engineering (RCA)
Project Objective:	To improve regional capabilities in the application of NDT/E to support the requirements of industries, including civil engineering for sustainable industrial development.
Field of Activity:	18 Radioisotopes and radiation technology for industrial, health-care and environmental applications
SDG:	09 - Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation
Country:	Regional Asia & the Pacific
Counterpart Name:	Ilham Mukriz ZAINAL ABIDIN
Counterpart Institution:	Waste Technology Development Centre; Malaysian Nuclear Agency
1st Year of Approval:	2018
Estimated Duration (years):	4
Expected End Date:	2021-12-31
Reporting Period:	2020
Has anything affected project implementation?	Yes (Cause: Other)
Risk management:	The COVID-19 pandemic has restricted all planned activities under RAS1022 to be implemented in 2020.

Output Progress

Output:	01 - Project management team operational.
Indicator:	Management team in place (NPCs appointed and NPT constituted).
Output Base Line and Target:	
Progress Towards Target:	91-100%
Rating:	Completed
Comments on progress made:	Project implementation team was established in Q1 2018, during which the NPCs for 21 participating GPs have been appointed. NPTs to support project implementation have been constituted in Q1 2019. NPCs and NPTs of participating GPs have actively participated and contributed in RTC and Regional Workshops that had been implemented under RAS1022.

Output:	02 - Trained and competent personnel in advanced NDT/E techniques.
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Indicator:	• 60 trained personnel in advanced NDT/E techniques in DIR and CT modalities through 3 RTCs (2 participants from target GPs) to function as trainers at national level by Q4 2022. • At least 10 national training events on DIR and CT with local trainers involved by Q4 2022. 1 national training event per each Target GP.
Output Base Line and Target:	
Progress Towards Target:	31-60%
Rating:	Delayed
Comments on progress made:	1 EGM and 1 RTC in Q1 and Q3 2020 were not implemented due to Covid-19. Even though the pandemic had restricted the planned activities to be implemented, GPs had reported activities at the national level that could support the achievement of the output as below: India: - NPC India was invited as a keynote speaker in the National conference on NDT (NDE2020) held in virtual mode during Dec 10-12, 2020. The topic of the talk was “Role of Conventional and Computational radiation-based Non-Destructive Evaluation Technologies In Assessment Of Specific Industrial Components And Assemblies”. - In-house R&D project in fast CT Scan technology resulted in development of unique solution to the problem where indigenous system can be used in continuous scan mode. - A transportable industrial gamma CT scanner has been developed and patent applied. Japan: Preparations are underway by holding an RT-D course at the JSNDI Training Center in Japan. Malaysia: Malaysia had organized the first national RT-D course which offers ISO 9712 RT-D certification by Malaysia's National Certification Body in October 2020. Mongolia: Mr. G.Shatar, who participated in RTC on RT-D in 10-29, June 2019 is working in NDT Service DTU LLC and sharing the knowledge obtained by the regional training. Pakistan: Practical demonstration of DIR equipment during RT Level 3 conducted at NCNDT (November 2020). Philippines: - Conduct awareness Workshop/Seminar on Advance NDT equipments in cooperation with the local NDT Society and the equipment supplier. - Additional advance NDT equipment are required, most especially, the digital industrial radiographic equipment and the advance ultrasonic equipment (Phased Array and TOFD). The acquisition of these expensive advance NDT equipment may not be available at present time due to funding constraints. Republic of Korea: - DR/CT workshop was organized for 80 participants). - In the process setting up national Digital Radiography ISO 9712 Certification Training Course. Singapore: Phased Array UT course had been conducted in 2020. Based on the reported progress at the national level by GPs, it is expected that the progress will speed up as the project progresses and the planned output can be achieved as planned.

Output:	03 - Developed capacity in NDT/E for inspection of civil structures.
Indicator:	• 40 trained personnel in civil structure inspection using radiation based NDT/E techniques through 2 RTCs (2 participants from each target GPs) to function as trainers at national level by Q4 2022. • At least 10 national training events on NDT/E for civil structures with local trainers involved by Q4 2022. 1 national training event per each Target GP.
Output Base Line and Target:	
Progress Towards Target:	31-60%
Rating:	Delayed
Comments on progress made:	1 RTC in Q4 2020 was not implemented due to Covid-19. GPs had reported activities that had been implemented or postponed at the national level that are related and could contribute to the achievement of the planned output as below: Bangladesh: Seminar on “Application of NDT for Quality Control and Establishment of Reliability of Infrastructure”, 21 June 2020 (postponed due to Covid-19) Malaysia: National Seminar on NDT for Civil Structure Inspection was planned to be organized in November 2020, however, postponed due to Covid-19. Myanmar: Procured ultrasonic testing instruments and equipments for building inspection with government budget. New Zealand: - Providing a leading role, as subject matter expert & meeting chairman to Expert Team Mission, Moscow Russia Feb 17th – 21st 2020. - Further development of Syllabi for NDT in Civil Structures, via remote activity & email correspondence Home Based, New Zealand March-Dec 2020. Pakistan: Procurement of concrete testing equipment is in

progress. Sri Lanka: Prepare mockup test pieces for NDT for concrete training course. It is hoped that the planned RTC still could be implemented in the future, when situation permit. It can be seen that some of the planned activities at GPs national level are very well in-line with the planned output. These, coupled with the availability of trained personnel from the planned RTC would definitely support in achieving the desired output.

Output:	04 - Established regional network for mutual recognition in NDT/E personnel certification.
Indicator:	• 20 trained personnel in the requirement of ISO 9712 and ISO 17024 for NDT/E qualification and certification system through 1 RTC (2 participants from each Target GPs) to function as the implementer of the system at the national level by Q4 2022. • At least 10 national training events on ISO 9712 and ISO 17024 with local trainers involved by Q4 2022. 1 national training event per each Target GP.
Output Base Line and Target:	
Progress Towards Target:	0-30%
Rating:	On Schedule
Comments on progress made:	<p>There is no planned activity for this output in 2020. Nevertheless, GPs continues to implement national activities that are directly related to the planned output. Details are as below: Fiji: Currently in the process of setting up Fiji NDT society Malaysia: - Malaysia's National Certification Body for NDT had been acknowledged by ICNDT to fulfilled the requirements for MRA and now is listed under Schedule 2 of ICNDT. - The NPC for Malaysia participated in the ISO/TC 135/ SC7 Non-Destructive Testing-Personnel Qualification online meeting for the drafting of the latest version of ISO 9712 in September 2020. Mongolia: In the process of upgrading the NDT personnel certification scheme by establishing of separate NDT examination centre at industrial place and digitizing of examination questions (using software for exam) at NDT Level 1 and 2 for all currently using methods. Myanmar: - National Certificate Body and Examination Body are not established yet in Myanmar. - Myanmar will try to establish the Non-Destructive Testing Society and human resources development relating with NDT. New Zealand: Commencement of building New Zealand Based NDT Training Scheme IAW global MRA and to meet the needs of New Zealand Industry for in-country training to CBIP requirements. Philippines: Participated in the virtual meeting of the ISO/TC 135/ SC7 Non-destructive Testing-Personnel Qualification via Zoom last 22-24 September 2020. Singapore: - National NDT Society achieved the ISO 17024 Certification by the Singapore Accreditation Council (SAC). - Promotion activities of Certification Body to industry, however, acceptance by industries on the Non-Destructive Testing Society Singapore (NNDTSS) personnel certification scheme is low because it is a new personnel certification scheme compared to other international schemes such as BINDT and ASNT. Thailand: - RT-1 and RT-2 Film were accredited by Thai Industrial Standards Institute (TISI) as per ISO17024 with ISO9712 scheme - UT-1 and UT-2 scheme are under project implementation and expected to be accredited by 2023. Based on the positive progress at the national level reported by NPCs, it is expected that the output can be achieved as planned.</p>

Equipment and Human Resources

Rate overall contribution towards achievement of project Outputs: Procurement and Human Resources

Equipment (EQ) / Sub-Contract (SC)	Not Applicable
Rating:	
Comments:	The project design does not provide for the particular input category within the current reporting period

Expert Mission (EM) Rating: Not Applicable

Comments: The project design does not provide for the particular input category within the current reporting period

Fellowship (FE) Rating: Not Applicable

Comments: The project design does not provide for the particular input category within the current reporting period

Scientific Visits (SV) Rating: Not Applicable

Comments: The project design does not provide for the particular input category within the current reporting period

National Training Courses (TC) Rating: Fair

Comments: All planned activities for 2020 were not implemented due to Covid-19. However, activities at the national level that support the achievements of the planned outputs have been implemented and reported by several GPs.

Meetings (MT) / Workshops (Ws) Rating: Not Applicable

Comments: Planned meetings (1 EGM and MTR meeting) were not implemented due to Covid-19.

Comments and Recommendations by CP

Rating by CP

Rate the project progress: Good

Comments: Even though we are facing the Covid-19 pandemic, several activities at the national level related to the project outputs have been reported by NPCs.

Rate the support received from the Agency: Very Good

Comments: Although all planned activities for 2020 could not be implemented, the Agency introduced innovative ways to optimise the resources allocated for the project and support the achievement of the planned project outputs and objectives through the procurement of equipment.

Lessons from previous projects or learned during implementation:

The determination of GPs to implement activities at the national level during this pandemic period supports the progress and achievement of the project outputs.

Recommendations (if any) to PMO : To still implement the activities planned for 2020 when the pandemic situation is cleared.

Recommendations (if any) to Technical Officer(s) :

Recommendations (if any) to NLO : N/A

Recommendations (if any) to others :

Outcome Progress

Outcome: Competencies for optimized application of radiation-based NDT/E to the industries enhanced, including civil engineering through advanced technology and standardized NDT/E implementation.

Indicator: • Pool of trained personnel in advanced NDT/E techniques in DIR and CT modalities. - Target countries: Bangladesh, Indonesia, Mongolia, Myanmar, Pakistan, Philippines, Singapore, Sri Lanka, Thailand, Viet Nam. - At least 6 trained personnel from each target countries by Q1 2022. • Pool of trained personnel in civil structure inspection using radiation based NDT/E techniques. - Target countries: Bangladesh, Indonesia, Mongolia, Myanmar, Pakistan, Philippines, Singapore, Sri Lanka, Thailand, Viet Nam. - At least 4 trained personnel from each target countries by Q1 2021. • GPs fulfilled the requirements for Mutual Recognition Agreement (MRA) in NDT/E certification. - Target: At least 4 countries fulfilled the requirements for MRA by Q4 2022.

Outcome Base Line and Target: - Baseline: 60 trained personnel (6 from each Target GPs) on DIR during 2015-2016 under RAS 1020. - Baseline: 0 trained personnel in Q1 2019 for NDT/E for civil structure (based on past effort analysis). - Baseline: 0 for MRA

Progress Towards Target: 31-60%

Rating: To be achieved as planned

Comments: Activities that could not be implemented in 2020, could still be implemented, when the situation permits. It can be seen that even though quite restricted, GPs still managed to implement minimum activities at the national level, and this could support the achievement of the planned outcome as planned.

Feedback by IAEA

Rating and comments on the project progress by TO

Rating of the project progress: Good

Comments: It wouldn't be fair to evaluate objectively the project in 2020's worldwide health situation. Despite it, is remarkable that some activities have been carried out. It is expected that as soon as situation improves, activities will be develop as it is planned.

Name: Gerardo Antonio Antonio MAGHELLA SEMINARIO

Date: 2021-02-01 10:33

Rating and comments on the project progress by PMO

Rating of the project progress: Good

Comments: Good

Name: Sinh Van HOANG

Date: 2021-02-19 08:37

Planned Regional Event under RAS1022 in 2021

No.	Title of Event	Planned Date	Objective/purpose	Remarks
1	RTC on the Computed Tomography (CT) in associated with 3D image analysis for industrial components.	22 – 26 February 2021	<p><u>Objective:</u> To train and educate participants in computed tomography in associated with 3D imaging analysis</p> <p><u>Target participants:</u> Member of national project team with at least 3 years of experience in industrial CT.</p> <p><u>Estimated number:</u> 20</p>	<p>Virtual Mode</p> <p>1 lecturer</p> <p>Propose to be implemented in Q3 2021</p>
2	Regional workshop on NDT in civil engineering structures during maintenance and post disaster.	14 – 16 June 2021	<p><u>Objective:</u> To support the establishment of working group on NDT in civil engineering leading to the establishment of national training programme in their home countries</p> <p><u>Target participants:</u> Member of national project team with at least 3 years of working experience in the field NDT or construction</p> <p><u>Estimated number:</u> 20</p>	<p>Virtual Mode</p> <p>1 lecturer</p>
3	Regional workshop on harmonization of certification schemes and participation in APCNDT.	18 – 22 October 2021	<p><u>Objective:</u> to support the harmonization of certification schemes for mutual recognition in NDT/E personnel certification</p>	<p>Virtual Mode</p> <p>1 lecturer</p>

			<p><u>Target participants:</u> Professionals from MSs directly involved in training, qualification and certification scheme as per ISO 9712 and ISO 17024</p> <p><u>Estimated number:</u> 20</p>	<p>* APCNDT has been postponed to 2023</p>
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