

QUESTIONNAIRE

(UN System and Other Relevant Entities)

Implementation of the SAMOA Pathway and the Mauritius Strategy for the Further Implementation of the Programme of Action for the Sustainable Development of Small Island Developing States survey for the Secretary-General report in 2019.

This report is being prepared in accordance with paras 5 and 6 of A/RES/72/307. The report will (i) serve to support the intergovernmental consultations on the Outcome Document of the Mid Term Review of the SAMOA Pathway and (ii) be considered by the UNGA 74. The report will review progress on SAMOA Pathway implementation for the period January 2015 to present.

INTRODUCTION

Twenty-two Small Island Developing States are Member States of the International Atomic Energy Agency (IAEA): Antigua and Barbuda, Bahamas, Bahrain, Barbados, Belize, Cuba, Dominica, Dominican Republic, Fiji, Grenada, Guyana, Haiti, Jamaica, Marshall Islands, Mauritius, Palau, Papua New Guinea, Singapore, St. Vincent and the Grenadines, Seychelles, Trinidad and Tobago, Vanuatu.

In addition, IAEA membership of Cabo Verde, Comoros, Saint Lucia and Tonga has been approved by the IAEA General Conference but is pending the deposit of their instrument of acceptance.

The technical cooperation programme (TCP) is the IAEA's main mechanism for transferring nuclear technology and building capacities in the peaceful use of nuclear science and technology. Through the TCP, the IAEA supports the SIDS IAEA Member States, helping them to address key development priorities, including the achievement of the SDGs.

1. Financial Support: Please provide information on annual financial allocation(s)/investment(s)

(i) in absolute values and (ii) as a percentage of the total annual budgets for SIDS programme areas, for the period January 2015 to December 2018 or the most relevant period following the onset of the SAMOA Pathway. Please provide your responses in the Table in **Annex 1, no. 1**.

Between 1 January 2015 and 31 December 2018, the IAEA disbursed a total of EUR 8 310 470.41 in the SIDS IAEA Member States through its national TC programme, in the following thematic areas:

- Energy (0.37%)
- Food and agriculture (35.98%)
- Health and nutrition (38.66%)
- Industrial applications/radiation technology (6.66%)
- Nuclear knowledge development and management (2.14%)
- Safety and security (3.21%)
- Water and the environment (12.98%)

In addition, the IAEA allocated a budget of 5 901 711 Euros to regional and one interregional technical cooperation project which are specifically targeted to SIDS IAEA Member States. Additionally, SIDS IAEA Member States also participate in regional and interregional TC projects together with other Member States from the region or across regions.

2. Measuring the Progress/Implementation Status of SAMOA Pathway thematic areas:

IAEA Final

- a. With reference to the assigned areas contained within the UN Implementation Matrix, where relevant or possible, please indicate the percentage achievement of the thematic areas contained within the SAMOA Pathway. Please support your answers with quantitative evidence (progress indicators, delivery rate of programme/project funds, etc.) as appropriate.

The IAEA's technical assistance in SIDS Member States has been focusing on various areas, including oceans and seas, food security and nutrition, water and sanitation, health and non-communicable diseases, which are consistent with the areas identified in the UN Implementation Matrix.

The Agency recognizes that a coordinated approach is required to effectively address the unique developmental challenges, linked to geographic isolation, economies of scale and demographic changes, that Small Island Developing States face. Therefore, an interregional project that is addressing common challenges of SIDS in areas including nutrition, cancer control, food security, climate change and radiation safety was developed with the participation of a wide range of stakeholders from the SIDS IAEA Member States, relevant regional organisations and UN representatives to identify specific development challenges of SIDS where the IAEA can contribute in the medium term. The four-year project, which began in 2018, focuses on human resource and institutional capacity building, promotion of networking and knowledge management among SIDS. Under the framework of the project, two workshops were held in 2018 for SIDS with the aim of enhancing knowledge and skills of the participants in the use of nuclear techniques for monitoring and improvement of the marine environment and for soil and water management.

With regard to the monitoring the marine and coastal environment, the IAEA has been supporting Fiji to build capacities with a view to contributing to the protection of natural resources, ecosystems and human health from the negative impact of inland mining and industrial activities, and from climate change (fully implemented project, 58d & e); in the Marshall Islands national capacities have been built to monitor and analyse artificial radionuclides in the marine, terrestrial and coastal environments for an informed decision making in the areas of food safety and security, human health and others (fully implemented project). IAEA's support in the area of addressing marine pollution and ocean acidification will continue in the future with the inclusion of more Pacific SIDS.

Food security and nutrition make up a substantive part of IAEA's work with the Pacific SIDS. In all five Pacific SIDS, the IAEA supports the establishment of laboratories for the management and eradication of invasive pests through the use of the Sterile Insect Technique to contribute to the sustainability of food production, its increase and overall food security (63 a and 63 f, ongoing, currently at 40%). At the regional level, IAEA partners with the Pacific Community (SPC) to enhance the resilience to climate change and disasters through access to improved crop varieties (63 a and 63 f, ongoing, currently at 30%). The IAEA has leveraged a partnership with UNIDO for a technical assistance project on increasing the trade and export capacities of selected value chains in the agro-food sector of Fiji through the adoption of an appropriate quality infrastructure, inter alia the establishment of an irradiation facility for the treatment of food and agricultural commodities against exotic pests and diseases (63 a and 63 f, ongoing, currently at 30%).

In Mauritius, support was provided to improve the productivity of landraces of cruciferous vegetables (cauliflower and cabbage) and carrot through the use of nuclear techniques for mutation breeding and biotechnology. Training was provided, and new varieties of cauliflower and cabbage were developed which are under consideration for national status. In Mauritius and the Seychelles, the support helped enhance human resources capabilities to establish effective nutritional intervention programme aimed at preventing colorectal cancer in the population and to establish operational facilities and infrastructures to facilitate research in body composition to report on the prevalence of obesity in children aged seven to nine years. This is ongoing, and data has been collected to finalize the map of both countries related to obesity and intervention programmes.

In the area of water and sanitation, the IAEA works in Vanuatu and the Marshall Islands to improve assessment and management of water resources by integrating environmental isotope tools with conventional techniques

for sustainable exploitation (65 d, ongoing, currently at 40%). In Mauritius, the IAEA provides support to assess the sources of pollution in rivers and rivulets of suburban regions. National capacities for monitoring dissolved nitrate, phosphorus and boron contamination were enhanced in the country.

Health and non-communicable diseases have been another major focus of IAEA's work in SIDS. Across all five Pacific SIDS, the IAEA has been working with national institutions to reduce morbidity and mortality, improve survival rates and the quality of life of cancer patients as well as to provide quality diagnostic services (all ongoing, currently at 40%).

In Mauritius, support has been provided by the IAEA to enhance the national capacity for the management of cancer and other non-communicable diseases through early detection and effective treatment. Human resources capacities were enhanced, and the expertise was deployed to support the sustainable service in the country and to expand the radiotherapy and nuclear medicine services.

Between 1 January 2015 and 31 December 2018, the IAEA conducted integrated missions for Programme of Action for Cancer Therapy (imPACT) reviews to Belize, Dominica, Fiji, Guyana and Mauritius with the aim to bring all relevant stakeholders together to discuss ways to address comprehensive cancer control at the national level. The results of the imPACT reviews are:

Belize: imPACT review was conducted in December 2016; based on the report's recommendations Belize has developed its national cancer diagnostic capacities, supported by the IAEA (equipment and training of relevant healthcare workforce).

Dominica: imPACT review was conducted in January 2015; the Ministry of Health was provided with the imPACT review report (including recommendations). The implementation of the recommendations and the development of an NCCP was hindered by the two major hurricanes that destroyed much of the health infrastructure in 2016 and 2017.

Fiji: The capacity of Ministry of Health in cancer control planning was enhanced. In 2016 and 2017, high level representatives from the Fiji Ministry of Health attended relevant trainings co-organized with WHO, US-NCI and UICC. A bankable document for the establishment of the first radiotherapy service in Fiji was developed, jointly with national experts, based on a 2015 comprehensive assessment of cancer control capacities and needs, followed by a 2016 cost-benefit analysis for RT and a radiotherapy feasibility study conducted by IAEA experts.

Guyana: the imPACT review was conducted in December 2018; the outcome and results are expected not before Q3-2019.

Mauritius: the imPACT review was conducted in December 2018; the outcome and results are expected not before Q3-2019.

- b. Please report on any other targets/indicators used by your organization to assess progress on implementation of the SAMOA Pathway? If the SDG goals and targets are used please explain how current progress measures against these indicators/targets?

The IAEA uses SMART indicators and links these to the SDGs targets. Monitoring and evaluation is conducted to assess progress against those indicators as well as the SDGs targets.

- c. If no specific indicators/targets are used by your organization, please indicate how your organization measures progress in lieu of targets and indicators?

N/A

3. Successful Examples – This section examines best practices and successful interventions that have made significant impact on the ground. **(Word Limit for responses: 2500).**

From among the programmes/projects that have been implemented by your organization over the reporting period, please elaborate on a few of the most successful. Please provide your responses in the Table in **Annex 1, no. 3.**

- i. Why are these considered a success?
 - ii. What were the results? Please support with qualitative/quantitative evidence if possible/relevant
 - iii. Please elaborate on the critical factors that contributed to the intervention's success and any key lessons learned?
- a. Where there any other key results/outputs achieved and describe its impacts, if any.

Name of Project/ Programme/ Activity	Main Themes/ Goals addressed		Target Countries, Regions, Sectors	Goals	Intervention Type (Tech transfer, Capacity development etc.)	Total Budget (EUR)	Implement ation Period
	Samoa Pathway	SDGs					
Applying nuclear science and technology in SIDS in support of the SDGs and the SAMOA Pathway	All themes	9 IAEA specific SDGs	All SIDS	To increase the application of nuclear science and technology in support of the Sustainable Development Goals (SDGs) and the Samoa Pathway targets of Small Islands Developing States	Human resource capacity development Active promotion of networking and knowledge management among SIDS Strengthening of the existing physical infrastructure for the application of nuclear technology	920,782.58	2018-2021
Improving Accessibility to Cancer Diagnosis and Treatment through Strengthening of Current Systems and the Introduction of Advanced Radiotherapy, Brachytherapy, Radionuclide Imaging and Diagnostic Imaging	Health and Non-Communicable Diseases	SDG 3	Papua New Guinea	To provide access to better health for all citizens, particularly to strengthen and improve cancer diagnosis, treatment infrastructure and manpower within the context of the national cancer plan.	Capacity development in the area of radioisotope and radiation treatment, nuclear medicine imaging Technology transfer whereby a computed radiotherapy system was procured along with dosimetry equipment and a brachytherapy emergency container	161,300	2016-2018
Improving the Productivity of Dairy Cattle through On-Farm Application of Achieved Research Information on Feeding Practices	Food Security and Nutrition	SDG2	Mauritius	To enhance the productivity of smallholder dairy farming through improved reproduction practices and better feeding with locally available forages and browse species.	Procurement of equipment and training provision	41,200	2016-2018
Strengthening Capacity for Training and Research on Application of Stable Isotope Techniques in Assessment of Risk Factors for Non-	Health and Non-Communicable Diseases	SDG3	Mauritius	To support development and evaluation of effective policies and interventions for reducing premature mortality from non-communicable diseases	Human Resources development through training and expertise deployment to assess Establish effective nutritional style intervention programme aimed at preventing colorectal cancer in the	189,290	2018-2021

Communicable Diseases					population developed and implemented		
Evaluating an Intervention Programme on Obesity and Obesity-Related Risk Factors in Children	Food Security and Nutrition Health and Non-communicable Diseases	SDG2 SDG 3	Seychelles	To evaluate an intervention programme on obesity and obesity related risk factors in children	National facilities were supported to facilitate research in body composition and to report on prevalence of obesity in children aged 7 to 9 years	95,400	2016-2019
Supporting Human Resource Development and Implementation of Strategic Activities for Nuclear Technology and its Application in the Caribbean Region	All themes	All 9 IAEA-specific SDGs	Caribbean SIDS	Capacity establishment, programme knowledge management and facilitation of cooperation among Member States	Capacity building, partnerships	792,897	2018-2019
Strengthening Human Capacities of Caribbean Countries in Radiation Medicine	Health and Non-Communicable Diseases	SDG 3	Caribbean SIDS	To improve the knowledge, skills and competencies of human resources in radiation medicine for the safe and effective diagnosis and treatment of patients in the Caribbean Member States	Capacity building, partnerships, Tech transfer	684,285	2018-2021
Strengthening Cradle-to-Grave Control of Radioactive Sources	Management of chemicals and waste, including hazardous waste	SDG 3	Caribbean SIDS	To protect the people and the environment from potential adverse effects of ionizing radiation while enabling and fostering the safe and secure use of radioactive sources to promote sustainable socioeconomic development	Capacity building, partnerships, Tech transfer	777,416	2016-2019
Establishing and Strengthening Sustainable National Regulatory Infrastructures for the Control of Radiation Source	Management of chemicals and waste, including hazardous waste	SDG 3	Caribbean SIDS	To bring governmental and regulatory infrastructure for the control of radiation sources in countries of the region which are new or have a low progress status in compliance with IAEA safety standards	Capacity building, partnerships, Tech transfer	1,485,813	2016-2019

SUCCESSFUL EXAMPLES

Mediterranean Fruit Fly

The Dominican Republic has regained access to export markets in January 2016 that had been closed (resulting in costs of roughly \$40 million in lost exports) due to an outbreak of Mediterranean fruit fly. This achievement was made possible thanks to the coordinated efforts of several organizations, including the Moscamed Programme in Guatemala/Mexico, the USDA, FAO, the IAEA, the Inter-American Institute for Cooperation on Agriculture (IICA), the International Regional Organization for Plant and Animal Health (OIRSA) and the Ministry of Agriculture of the Dominican Republic. Area-wide eradication actions were successfully coordinated and implemented in Punta Cana and other infested areas in the Altagracia Province. Assistance included operations

IAEA Final

to suppress and eradicate the pest as well as to establish a surveillance programme. These coordinated efforts have prevented the fly from spreading to other Caribbean and mainland countries, including Mexico and the US, thus avoiding large economic losses in the region.

Isotope Hydrology in Cuba

In Cuba, the IAEA implemented a national technical cooperation project with the aim to increase knowledge on the origin and sources of groundwater, its occurrence, time of recharge, presence of pollutants and the magnitude of saline intrusion, and to contribute to the sustainable management of water resources. In 2016, the project provided considerable support for the installation of an isotope monitoring network for precipitation. In addition, local staff were trained in the design and installation of a network for groundwater sampling and radon applications in hydrological studies. As of 2018, the laboratory is now fully operational, and Cuba has the capability to produce and interpret isotopic data to better manage its water resources.

Radio-Guided Surgery in Cuba

In the framework of a national technical cooperation project in Cuba, nearly 50 participants representing 9 hospitals across Cuba (HHA, INOR, CIMEQ, INEF, Salvador Allende, Celestino Hernández, Maria Curie, Vladimir I. Lenin and Conrado Benítez) were part of the very first multidisciplinary course in radio-guided surgery with the aim of improving the level of medical care received by patients with cancer and other related diseases, approaching the highest levels of international recommendation. This project is part of the national programme to control cancer in the country, guaranteeing the sustainability of human resources and the infrastructural capacity to establish, develop and optimize the clinical uses of radio-guided surgery techniques for diagnosis and treatment.

IAEA School of Radiation Emergency Management for Caribbean Community (CARICOM) States and Training of First Responders to Prepare for a Potential Radiological Emergency in the Caribbean

Between 26 November and 7 December 2018, the first School of Radiation Emergency Management for Member States was held at the Texas A&M University, United States of America, with 24 participants from 8 Caribbean Member States, as well as the Caribbean Disaster Emergency Management Agency (CDEMA). The two-week training course focused on strengthening national and regional capacity to respond to nuclear and radiological incidents and emergencies. Knowledge gained from the training will support participants to develop and manage sustainable emergency preparedness and response (EPR) programmes, based on the IAEA safety standards, technical guidelines, and EPR tools and training materials. The training involved lectures, practical exercises, field visits, group work and knowledge sharing sessions. The skills development sessions include the use of radiation detectors, personal protective equipment, and public communication in emergencies.

Partnerships

The IAEA is a contributing organisation of the CARICOM-UN Cooperation work plan.

The IAEA has signed five partnerships with Caribbean technical organizations to join efforts towards contributing to SAMOA pathway and regional development priorities. In 2017, IAEA signed Practical Arrangements (PA) with the Caribbean Disaster Management Agency (CDEMA) and the Caribbean Public Health Agency (CARPHA). The PA with CDEMA formalizes cooperation to enhance and strengthen technical support for Caribbean Member States in the area of emergency preparedness and response, while the PA with CARPHA provides a framework for joint work on the use of nuclear science to prevent disease and promote and protect health.

In 2018, the IAEA signed Practical Arrangements with the Caribbean Community Climate Change Centre (CCCCC), the Caribbean Agricultural Health and Food Safety Agency (CAHFSA) and the University of the West Indies Mona Campus. All three of these PAs will strengthen and enhance cooperation in bringing nuclear science and technology to Caribbean Member States for sustainable socioeconomic impact.

In addition, the IAEA signed an Agreement with the Pacific Community for Cooperation to support Sustainable Development in the Asia-Pacific Region (year?).

4. Addressing Gaps and Challenges:

- a. From among the programmes/projects that have been implemented by your organization over the reporting period, please elaborate on any implementation challenges that have been encountered (**Word Limit for responses: 2500**).

Overall challenges that were noted with regard to the implementation of technical cooperation projects included scarce institutional capacities, lack of basic infrastructure for the control of radiation sources, as well as a limited number of personnel available that could be trained in areas of need.

What have been the lessons learned and how will these be taken into account for the remaining implementation period of the SAMOA Pathway? (2019-2024)?

A graded approach for the planning and implementation of national programmes has been introduced. Strong emphasis is now placed on regional, cross-cutting activities. Where appropriate, SIDS Member States were encouraged to recruit more specialists to address the national needs. More expert missions are conducted instead of sending fellows or scientific visitors.

5. Outreach/Publications

Please include a link to the annual progress report(s) of your organization, or any other relevant progress report(s). If present, please identify the sections relevant to SIDS/SAMOA Pathway implementation. Please also add any other publication issued by your organization the covers SIDS

Technical Cooperation Report for 2017

https://www-legacy.iaea.org/About/Policy/GC/GC62/GC62InfDocuments/English/gc62inf-4_en.pdf

Technical Cooperation for 2016

https://www-legacy.iaea.org/About/Policy/GC/GC61/GC61InfDocuments/English/gc61inf-7_en.pdf

IAEA Annual Report for 2017

https://www-legacy.iaea.org/About/Policy/GC/GC62/GC62Documents/English/gc62-3_en.pdf

IAEA Annual Report for 2016

https://www-legacy.iaea.org/About/Policy/GC/GC61/GC61Documents/English/gc61-3_en.pdf

Webarticles

- <https://www.iaea.org/newscenter/news/the-iaea-technical-cooperation-programme-engages-with-the-needs-of-sids>
- <https://www.iaea.org/newscenter/news/learning-by-doing-newcomers-from-small-pacific-island-countries-receive-hands-on-training-in-designing-iaea-technical-cooperation-projects>
- <https://www.iaea.org/newscenter/news/helping-small-island-developing-states-sids-to-improve-soil-and-water-management>
- <https://www.iaea.org/newscenter/news/iaea-hosts-interregional-meeting-on-safety-and-security-of-radioactive-sources-in-small-island-developing-states>
- <https://www.iaea.org/newscenter/news/iaea-provides-emergency-assistance-mediterranean-fruit-fly-outbreak-caribbean>

IAEA Final

- <https://www.iaea.org/newscenter/news/iaea-works-to-strengthen-national-regulatory-infrastructure-in-the-caribbean>
- <https://www.iaea.org/newscenter/multimedia/videos/ambassador-david-stuart-explores-and-explains-the-challenges-faced-by-sids>
- <https://www.iaea.org/newscenter/news/iaea-holds-training-course-on-setting-up-national-inventories-of-sealed-radioactive-sources-in-the-caribbean>
- <https://www.iaea.org/newscenter/news/cuban-rice-variety-bred-for-tolerance-to-salinity-and-rice-mites-stays-relevant-in-cubas-fields-and-its-cuisine-for-almost-20-years>
- <https://www.iaea.org/newscenter/news/representatives-from-nine-caricom-states-tour-the-iaea-incident-and-emergency-centre>
- <https://www.iaea.org/newscenter/news/better-planning-better-projects-regional-workshop-on-project-design-takes-place-in-jamaica>
- <https://www.iaea.org/newscenter/news/first-school-for-drafting-regulations-on-radiation-safety-for-iaea-member-states-from-the-caribbean-takes-place-at-iaea-headquarters>
- <https://www.iaea.org/newscenter/news/small-island-developing-states-partnership-and-resource-mobilization-addressing-common-challenges-in-the-caribbean-and-the-pacific>
- <https://www.iaea.org/newscenter/news/first-iaea-cdema-meeting-takes-place-at-iaea-headquarters-vienna>
- <https://www.iaea.org/newscenter/news/iaea-and-cdema-sign-practical-arrangement-to-enhance-cooperation-in-preparedness-and-response-for-nuclear-or-radiological-emergencies>
- <https://www.iaea.org/newscenter/news/iaea-paho-follow-up-meeting-on-emergency-preparedness-and-response-for-radiological-emergencies-in-the-caribbean-sub-region>
- <https://www.iaea.org/newscenter/news/iaea-participates-in-ninth-general-meeting-of-the-caribbean-community-and-associated-institutions-and-the-united-nations-system>
- <https://www.iaea.org/newscenter/news/better-control-of-radioactive-sources-caribbean-regulators-start-first-of-a-kind-training>
- <https://www.iaea.org/newscenter/news/first-meeting-between-iaea-and-caribbean-community-climate-change-centre-takes-place>
- <https://www.iaea.org/newscenter/news/supporting-safety-in-the-caribbean-iaea-helps-member-states-establish-regulatory-infrastructures>
- <https://www.iaea.org/newscenter/news/building-regulatory-capacity-in-jamaica-iaea-welcomes-delegation-from-new-jamaican-authority>
- <https://www.iaea.org/newscenter/news/toward-cradle-to-grave-control-in-the-caribbean-iaea-supports-member-state-source-management-efforts>
- <https://www.iaea.org/newscenter/pressreleases/iaea-helps-strengthen-radiation-medicine-in-the-caribbean>
- <https://www.iaea.org/newscenter/news/training-first-responders-to-prepare-for-a-potential-radiological-emergency-in-the-caribbean>
- <https://www.iaea.org/newscenter/news/helping-small-island-developing-states-sids-to-improve-soil-and-water-management>

IAEA Final

- <https://www.iaea.org/newscenter/news/iaea-and-university-of-the-west-indies-mona-agree-to-collaborate-on-training-and-knowledge-management>
- <https://www.iaea.org/newscenter/news/national-training-on-basic-radiation-protection-and-regulation-takes-place-in-guyana>
- <https://www.iaea.org/newscenter/news/improving-crops-to-feed-latin-america-and-the-caribbean-first-results-of-a-regional-project-presented-at-an-iaea-meeting>
- <https://www.iaea.org/newscenter/multimedia/videos/combating-the-effects-of-climate-change-in-the-caribbean>
- <https://www.iaea.org/newscenter/news/find-seek-and-secure-iaea-supports-caribbean-member-states-in-the-handling-of-orphan-sources>
- <https://www.iaea.org/newscenter/news/iaea-and-cahfsa-sign-practical-arrangement-for-agriculture-and-food-safety>

- a. Does your organization manage any website dedicated exclusively to SIDS?

The IAEA does not operate a website directly linked to SIDS, however, the IAEA website posts numerous informational pages and news stories linked to how the IAEA is assisting SIDS to achieve the SDGs and the SAMOA Pathway initiatives.

- <https://www.iaea.org/newscenter/multimedia/videos/iaea-to-help-small-island-developing-states>

6. Preparations for the Mid-Term Review – A High-Level review of the Samoa Pathway will take place on 27th of Sept. 2019 in UNHQ, as mandated by [A/RES/72/307](#).

- a. Is your organization conducting or planning to conduct any internal review of SIDS programmes in preparation for the Mid-term review of the Samoa Pathway? If so, please provide.

Under consideration.

- b. Please elaborate on any other activities being undertaken in preparation for the High-Level Review in 2019.

Under consideration.

7. Other Matters – Please include any other information as relevant.

N/A

Thank you for completing the Survey!