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**ACUERDO REGIONAL DE COOPERACIÓN PARA LA PROMOCIÓN DE LA
CIENCIA Y LA TECNOLOGÍA NUCLEARES EN AMÉRICA LATINA Y EL CARIBE**

**PROCEDURES MANUAL
FROM ARCAL**

**ANNUAL REPORT
PROJECT COORDINATORS
JAMAICA 2018**



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ACUERDO REGIONAL DE COOPERACIÓN PARA LA PROMOCIÓN DE LA CIENCIA Y LA TECNOLOGÍA
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INTRODUCTION

RLA1012: "Developing a Capacity Building Programme to Ensure Sustainable Operation of Nuclear Research Reactors through Personnel Training"(ARCAL CLI)

The project began in 2016 with the aim of transferring knowledge through theory and practical training to increase the number and quality of trained professionals and technicians in the operation and maintenance of Nuclear Research Reactors to ensure the sustainable operation of these RR in region.

1. EXECUTIVE SUMMARY

Jamaica was responsible for developing the material in one of the e-learning modules and for reviewing the content of several others. Jamaica also organized and hosted the intermediate coordination meeting in January 2018 where the primary objective was to review the drafts of training modules and provide feedback for their improvement. Jamaica's participation in meetings and workshops included:

- Oct. 31 – Nov. 4, 2016 - IAEA Train-the-trainers Workshop on sharing the experience by the Eastern European Research Reactors Initiative on Group Fellowship Training Course, Prague, Czech Republic, 2 persons;
- Jan. 30 – Feb. 3, 2017 –Regional Meeting on the Application of the Code of Conduct on the Safety of Research Reactors, Bogota, Colombia, 2 person;
- March 6 – 10, 2017 - Regional Workshop on Internet Reactor Laboratory, Bariloche, Argentina, 1 person;
- Sep. 11 – 22, 2017 - IAEA Train-the-trainers workshop on Utilization, Operation, Maintenance, and Safety of Research Reactors, Brazil, 1 person;
- January 22 – 2, 2018 – RLA1012 Intermediate Coordination Meeting, Kingston, Jamaica

**VALUATION OF THE CONTRIBUTION OF THE RLA PROJECT / 1012 TO THE
ARCAL PROGRAM**

ITEM	REFERENCE VALUE	QUANTITY in Euros
1. Experts / Lecturers sent abroad by the Agency (IAEA)	EUR 300 per person per day (travel days included)	7500
2. Local expenses per regional event venue in the country (Working Group / Training Courses / Workshops / Seminars)	EUR 5,000 per week	5000
3. 3. Local expenses in national events, which are in the Activity Plan	EUR 3,000 per week	0
4. 4. Scholar whose local expenses are assumed by the country	EUR 3,500 per month per scholar	0
5. 5. Publications	Up to EUR 3,000	0
6. Creation and / or update of Database	Up to EUR 5,000	5000
7. Sending reagents, radioactive sources, radioisotopes, other materials	Up to EUR 5,000	0
8. Realization of services (eg irradiation of materials)	Up to EUR 5,000	0
9. Time worked as DTM	Maximum EUR 700 per month	0
Time worked as Project Coordinator	Maximum EUR 500 per month	6000
Time worked as local specialists who collaborate with the project (maximum 3 specialists per project)	Maximum EUR 300 per month per specialist	7200
Contributions in the execution of each Project including the following points: a. Internal / external per diem b. Internal / external transport	Maximum EUR 7.500 / project	0
Country expenses for the project (infrastructure, equipment, etc.)	Maximum EUR 10,000	2000
TOTAL		32200

2. IMPACT OF PROJECT ACTIVITIES IN THE COUNTRY

Through the project, ICENS received an iSpring Suite software license that will be used in the development of the training material for the revamped training programme for the JM-1 research reactor staff.



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The meetings and workshops have been particularly useful. Seeing first-hand how training of reactor staff is carried out at other facilities, especially the experience of the EERRI Group Fellowship course, have highlighted different approaches to training that would enhance/compliment methods being implemented at ICENS.

3. RESULTS

The material in the e-learning training modules being developed under the project, as well as other e-learning material developed by the IAEA (eg. E-learning on NAA) will be used extensively in the revamped training programme. This will result in an improvement in the capacity of the operating staff of the Jamaican research reactor.

4. DIFFICULTIES AND PROBLEMS PRESENTED DURING THE PROGRESS OF THE PROJECT:

Other Project Counterparts were late in the delivery of the agreed module materials which resulted in the project roll out being delayed.



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INTRODUCTION

RLA5064: Strengthening Soil and Water Conservation Strategies at the Landscape Level by Using Innovative Radio and Stable Isotope and Related Techniques (ARCAL CXL)

1. EXECUTIVE SUMMARY

The project began in 2014, the project seeks to provide new data sets complementing existing ones to relevant authorities in the region for agricultural planning and strategy. Linkage with a broader development goal or priority: Land and water degradations have been described as the most significant environmental challenges for guaranteeing soil and water conservation for sustainable food production and water supply during the 21st century.

2. IMPACT OF PROJECT ACTIVITIES IN THE COUNTRY

No report of activity in Jamaica from project counterpart.

3. RESULTS

None.

4. DIFFICULTIES AND PROBLEMS PRESENTED DURING THE PROGRESS OF THE PROJECT:

Project never really institutionalised.



INTRODUCTION

RLA5068: “Improving Yield and Commercial Potential of Crops of Economic Importance” (ARCAL CL).

The project began in 2016 with the aim of developing new mutant lines with improved tolerance to abiotic stresses and disease resistance for native crops such as papa, yucca, ginger, avocado, papaya, citrus, banana, and coffee.

1. EXECUTIVE SUMMARY

- Mr. Collin Scantlebury, Chief Plant Breeding Officer, Research and Development Division, Ministry of Industry Commerce Agriculture and Fisheries participated in the Regional training course on biotic resistance and plant pathology, Heredia, Costa Rica, March 6-10, 2017
- Mrs Camille Marks Kelly, Chief Plant Protection Officer Research and Development Division Ministry of Industry Commerce Agriculture and Fisheries participated in the Regional Meeting on the Harmonization of Fruit Fly Control Methods for the Establishment and Maintenance of Areas of Low Pest Prevalence (ALPP) and Pest Free Areas (PFAs), Guatemala City, 16-20 October, 2017

VALUATION OF THE CONTRIBUTION OF THE RLA PROJECT / 5068 TO THE ARCAL PROGRAM

ITEM	REFERENCE VALUE	QUANTITY in Euros
10. Experts / Lecturers sent abroad by the Agency (IAEA)	EUR 300 per person per day (travel days included)	0
11. Local expenses per regional event venue in the country (Working Group / Training Courses / Workshops / Seminars)	EUR 5,000 per week	0
12. 3. Local expenses in national events, which are in the Activity Plan	EUR 3,000 per week	0
13. 4. Scholar whose local expenses are assumed by the country	EUR 3,500 per month per scholar	0
14. 5. Publications	Up to EUR 3,000	0
15. Creation and / or update of Database	Up to EUR 5,000	5000
16. Sending reagents, radioactive sources, radioisotopes, other materials	Up to EUR 5,000	0
30. Realization of services (eg irradiation of materials)	Up to EUR 5,000	0
31. Time worked as DTM	Maximum EUR 700 per month	0



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Time worked as Project Coordinator	Maximum EUR 500 per month	0
Time worked as local specialists who collaborate with the project (maximum 3 specialists per project)	Maximum EUR 300 per month per specialist	1800
Contributions in the execution of each Project including the following points: a. Internal / external per diem b. Internal / external transport	Maximum EUR 7.500 / project	2000
Country expenses for the project (infrastructure, equipment, etc.)	Maximum EUR 10,000	0
TOTAL		8800

2. IMPACT OF PROJECT ACTIVITIES IN THE COUNTRY

Participants develop harmonized methods based on ISPM standards and experiences in their respective countries.

3. RESULTS

Utilization of harmonized methods in local fruit fly management programme

4. DIFFICULTIES AND PROBLEMS PRESENTED DURING THE PROGRESS OF THE PROJECT:

Research officer in the Research and Development Division trained under RLA5068 resigned from the Research and Development Division. Mr Scantlebury was one of only two local scientists trained to date under this project competent enough in Spanish, the other is employed to the Scientific Research council, and the latter participated in a training event in 2016.



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INTRODUCTION

RLA5070: "Strengthening Fruit Fly Surveillance and Control Measures Using the Sterile Insect Technique in an Area Wide and Integrated Pest Management Approach for the Protection and Expansion of Horticultural Production" (ARCAL CXLI).

The project began in 2016 and will result in the development of horticultural capabilities, strengthening and standardization of monitoring and control of fruit flies present and not present, development of export protocols and the strengthening of existing fruit fly control programs, these aspects lead to the development of free and low fruit flies prevalence areas which leads to improved fruit and horticultural industry.

1. EXECUTIVE SUMMARY

Mr Alex Sybron, Senior Plant Protection Officer – Entomology Research and Development Division Ministry of Industry Commerce Agriculture and Fisheries participated in Regional workshop on " Sistemas de Información Geográfica (SIG) Aplicados a Programas de Control de Moscas de la Fruta", in Belmopan, Belize August 7-11, 2017.

The purpose of the workshop was to transfer the technology of the geographic information system (GIS) to the Member States participating in the project as a tool for the management of the information generated in the monitoring and control programs of fruit flies.

VALUATION OF THE CONTRIBUTION OF THE RLA PROJECT / 5070 TO THE ARCAL PROGRAM

ITEM	REFERENCE VALUE	QUANTITY in Euros
19. Experts / Lecturers sent abroad by the Agency (IAEA)	EUR 300 per person per day (travel days included)	0
20. Local expenses per regional event venue in the country (Working Group / Training Courses / Workshops / Seminars)	EUR 5,000 per week	0
21. 3. Local expenses in national events, which are in the Activity Plan	EUR 3,000 per week	0
22. 4. Scholar whose local expenses are assumed by the country	EUR 3,500 per month per scholar	0
23. 5. Publications	Up to EUR 3,000	0
24. Creation and / or update of Database	Up to EUR 5,000	5000
25. Sending reagents, radioactive sources, radioisotopes, other materials	Up to EUR 5,000	0
52. Realization of services (eg irradiation of materials)	Up to EUR 5,000	0



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53. Time worked as DTM	Maximum EUR 700 per month	0
Time worked as Project Coordinator	Maximum EUR 500 per month	0
Time worked as local specialists who collaborate with the project (maximum 3 specialists per project)	Maximum EUR 300 per month per specialist	1800
Contributions in the execution of each Project including the following points: a. Internal / external per diem b. Internal / external transport	Maximum EUR 7.500 / project	2000
Country expenses for the project (infrastructure, equipment, etc.)	Maximum EUR 10,000	0
TOTAL		8800

2. IMPACT OF PROJECT ACTIVITIES IN THE COUNTRY

Capacity developed in the use of GPS in geo-referencing traps and transfer of information to a regional database; Capacity developed in the use of GIS, databases and information analysis and the generation of trapping reports.

Equipment received from project:

ITEM	Quantity
GPSMAP64S Rugged, Full-featured Handheld with GPS, GLONASS and Wireless Connectivity 2.6" sunlight-readable color screen High-sensitivity GPS and GLONASS receiver with quad helix antenna 1-year BirdsEye Satellite Imagery subscription 3-axis compass with barometric altimeter Wireless connectivity via Bluetooth® technology ¹ or ANT+®	6
Total Value EUROS	\$1,219.90
Entomological Equipment & Supplies Trapping material, Jamaica	Quantity
Jackson Trap (Prisma)	4680
Jackson Trap (Inserts with stickem)	9360
Wire Hooks	660
Yellow Panel Trap	1560
Multilure Trap	132
Methyl Eugenol (ME)	2080
Cuelure (CUE)	1040
Trimedlure (TML) with basket	1040
Torula Yeast Drum	2



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<i>Total Value in USD</i>	<i>\$12,228.80</i>
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3. RESULTS

Officer trained in use of the equipment currently utilizing it in med fly surveillance activities. Remaining instruments to be distributed to Plant Quarantine and RADA for utilization in fruit fly surveillance programme.

Entomological materials used in training exercises with fruit fly surveillance team. Remaining materials to be used to replenish existing stock and in the establishment of additional surveillance sites.

4. DIFFICULTIES AND PROBLEMS PRESENTED DURING THE PROGRESS OF THE PROJECT:

Strengthening Fruit Fly Surveillance and Control Measures Using the Sterile Insect Technique in an Area Wide and Integrated Pest Management Approach for the Protection and Expansion of Horticultural Production there is need for additional bodies /officers to support National Fruit Fly surveillance programme.



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RLA6077: Taking Strategic Actions to Strengthen Capacities in the Diagnostics and Treatment of Cancer with a Comprehensive Approach (ARCAL CXLVIII)

The project began in 2016 with the aim of strengthening the capacities of the different specialties related to the diagnostics and treatment of cancer with emphasis in the new technologies to contribute to the national cancer control programs.

1. EXECUTIVE SUMMARY

Jamaica did not benefit from the project activities in 2017. All training workshops conducted under the project were conducted in Spanish and therefore the relevant Jamaican professionals were unable to participate in the training and workshops.

Our local Radiotherapy departments, which recently acquired linear accelerators and high dose-rate brachytherapy equipment, have also recruited Cuban radiotherapy professionals. These include Therapists, Oncologists and Medical Physicists. Given their Spanish mother tongue, it is anticipated that they will be eligible to participate in the Regional project activities conducted in Spanish, and that they will be able to transfer the knowledge gained to local Jamaican professionals.



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VALUATION OF THE CONTRIBUTION OF THE RLA PROJECT / 6077 TO THE ARCAL PROGRAM

ITEM	REFERENCE VALUE	QUANTITY in Euros
28. Experts / Lecturers sent abroad by the Agency (IAEA)	EUR 300 per person per day (travel days included)	0
29. Local expenses per regional event venue in the country (Working Group / Training Courses / Workshops / Seminars)	EUR 5,000 per week	0
30. 3. Local expenses in national events, which are in the Activity Plan	EUR 3,000 per week	0
31. 4. Scholar whose local expenses are assumed by the country	EUR 3,500 per month per scholar	0
32. 5. Publications	Up to EUR 3,000	0
33. Creation and / or update of Database	Up to EUR 5,000	0
34. Sending reagents, radioactive sources, radioisotopes, other materials	Up to EUR 5,000	0
74. Realization of services (eg irradiation of materials)	Up to EUR 5,000	0
75. Time worked as DTM	Maximum EUR 700 per month	0
Time worked as Project Coordinator	Maximum EUR 500 per month	0
Time worked as local specialists who collaborate with the project (maximum 3 specialists per project)	Maximum EUR 300 per month per specialist	0
Contributions in the execution of each Project including the following points: a. Internal / external per diem b. Internal / external transport	Maximum EUR 7.500 / project	0
Country expenses for the project (infrastructure, equipment, etc.)	Maximum EUR 10,000	0
TOTAL		0

2. IMPACT OF PROJECT ACTIVITIES IN THE COUNTRY

None; due to the barrier language posed to participation.



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3. RESULTS

None.

4. DIFFICULTIES AND PROBLEMS PRESENTED DURING THE PROGRESS OF THE PROJECT:

All training workshops are conducted in Spanish and therefore the relevant Jamaican professionals are unable to benefit from the initiative. In the future, however, the Cubans employed locally to our Radiotherapy services will be nominated, to participate in the Spanish speaking workshops. This is with a view to our local services benefitting directly from the new knowledge gained. Additionally, special efforts will be made to ensure that the knowledge is also transferred to our local staff through training sessions arranged for the candidate to pass on information gained and to demonstrate skills and techniques acquired.



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INTRODUCTION

RLA7016: Using Isotopes for Hydrogeological Assessment of Intensively Exploited Aquifers in Latin America (ARCAL CXXVII)

1. EXECUTIVE SUMMARY

This report details the 2017 achievements of Jamaican participation in ARCAL project RLA7016 “Using Isotopes for Hydrogeological Assessment of Intensively Exploited Aquifers in Latin America (ARCAL CXXVII)”

2. IMPACT OF PROJECT ACTIVITIES IN THE COUNTRY

No report of activity in Jamaica from the project counterpart.

3. RESULTS

None.

4. DIFFICULTIES AND PROBLEMS PRESENTED DURING THE PROGRESS OF THE PROJECT:

Main project counterpart has retired; the project was not institutionalised as such there was no continuity.



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RLA7022: Strengthening Regional Monitoring and Response for Sustainable Marine and Coastal Environments (ARCAL CXLV)

The project started in 2016 to support improvements of the marine environment management of the countries of Latin America and the Caribbean through actionable information provided by the network for monitoring and response.

1. EXECUTIVE SUMMARY

This report details the 2017 achievements of Jamaican participation in ARCAL project RLA7022 “Strengthening Regional Monitoring and Response for Sustainable Marine and Coastal Environments (ARCAL CXLV)”. Ms Andrea Donaldson from the National Environment and Planning Agency, participated in the First Coordination Meeting on RLA7022 and final results of RLA7020 in San Jose, Costa Rica from February 5 to 9, 2018 during which the work-plan for RLA7022 was finalized.

2. IMPACT OF PROJECT ACTIVITIES IN THE COUNTRY

None yet.

3. RESULTS

None yet.

4. DIFFICULTIES AND PROBLEMS PRESENTED DURING THE PROGRESS OF THE PROJECT:

The coordination meeting was conducted in Spanish; the counterpart had difficulties in fully participating in the meeting.