United Nations Environment Programme

Terminal Evaluation of the Project
"MITIGATING THE THREAT OF INVASIVE ALIEN SPECIES IN THE INSULAR CARIBBEAN"

UNEP IMIS #: GFL/-2328-2740-4995 // GEF ID #: 3183

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Front Cover Photographs: Close up of two emblematic reptile species from the Caribbean. In the lower left, the Saint Lucia Whiptail (Cnemidophorus vanzoi), pictured in Maria Major Island, Saint Lucia, and on the upper right the Jamaican Iguana (Cyclura collie), at the Hope Zoo, Kingston. The Whiptail was originally from the main Saint Lucia Island from where it was extirpated, very small populations remain in adjacent Maria Major (10.1 ha) and Maria Minor (1.6 ha) and Rat and Preslin islands. The Jamaican Iguana was presumed already extinct in 1948 and a remaining population was discovered in the Hellshire Hills of Jamaica in 1990. In both cases, their near extinction is due in great part to the impact of invasive alien predators, particularly Indian Mongoose in the Iguana's case. Both species are good examples of the threat that 'Invasive Alien Species (IAS)' represent to the survival of the Caribbean biodiversity and natural heritage. (Photographs © Hugo Arnal).

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ACKNOWLEDGEMENT

First and foremost, the evaluator would like to thank the UN Environment Program (UNEP) for the opportunity to perform the 'Terminal Evaluation' (TE) of the GEF-financed 'Mitigating the Threat of Invasive Alien Species in the Insular Caribbean' (MTIASIC) project and in particularly to Mrs. Elisa Calcaterra, from UNEP's Evaluation Office, for her trust when assigning the evaluation task to the author of this report. Her comments and support were very enriching and pivotal for the completion of this evaluation. Similarly, my gratitude to Mrs. Kristin McLaughlin, UNEP's project Task Manager and Liaison Officer with the Global Environment Facility (GEF), who fully embraced the evaluation, providing feedback, organizing information exchange mechanisms and bridging with National Coordinators (NC) and Project Directors, the National Executing Agencies (NEAs) and the Regional Project Director, Mr. Naitram (Bob) Ramnanan, CABI's Regional Representative for Central America and the Caribbean. Equally important, I would like to thank Mrs. Mela Shah, from UNEP HQ in Kenya, who helped with the logistics and administrative aspects of the work.

This 'Terminal Evaluation (TE) Report' was prepared after visiting the five countries participating in the MTIASIC Project and attending the regional Caribbean workshop "Policies, Strategies and Best Practices for Managing Invasive Alien Species in the Insular Caribbean' which took place in Port of Spain, Trinidad and Tobago, from March 31st through April 4th, 2014. As stated in the previous 'Inception report', visits to the participant countries and interviews with local governmental officers, experts and stakeholders would have been very difficult or far less complete without the support from the National Coordinators (NCs) and National Executing Agencies (NEAs): Mr. Frederick Arnett II, from the Department of Marine Resources, Ministry of Agriculture, Marine Resources and Local Government, Bahamas; Mr. Carlos Rijo, from the Environment and Natural Resources Ministry, Dominican Republic; Mrs. Nelsa English-Johnson, from the National Environment and Planning Agency (NEPA), Jamaica; Mrs. Ulrike Krauss, consultant with the Forestry Department, Ministry of Sustainable Development, Energy, Science and Technology, Saint Lucia; and Mrs. Velda Ferguson-Dewsbury, consultant with the Ministry of Food Production, Trinidad and Tobago. Similarly, both during the workshop as well as during country visits, 'Project Directors' (PDs) were very supportive of the evaluation and provided significant amounts of information and candid perspectives about the project's achievements and limitations: Mr. Michael Braynen, Bahamas; Mr. José Mateo, Dominican Republic; Ms. Sheries Simpson, Jamaica; Mr. Michael Bobb, Saint Lucia; and Mrs. Audine Mootoo, from Trinidad and Tobago. The support from National Coordinators and Project Directors did not stop after the visits to their countries but continued for several weeks while this evaluation was being prepared. This evaluator is very grateful to all of them (ANNEX B provides complete institutional information on executing agencies, National Coordinators and Project Directors).

My gratitude to Naitram (Bob) Ramnanan and Arne Witt, both from CABI, with whom I spent several hours reviewing achievements and lessons learned through the MTIASIC Project as well as technical issues related to invasive species in the Caribbean and worldwide, and particularly Mr. Ramnanan as per his continued support providing additional documents for the TE. Special mention is also ought to Boris Fabres, Caribbean regional Director for Island Conservation, who provided significant support during my visits to Nassau and Trinidad.

This evaluator is deeply indebted to all those who contributed their expertise, perspectives and time during the elevated number of interviews conducted in country or through Skype and telephone. They are all listed in this Report's ANNEX C.

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PROJECT IDENTIFICATION TABLE

GEF project ID:	3183	**UNEP IMIS number:**	GFL/-2328-2740-4995
Focal Area(s):	Biodiversity Strategic Program 7: Invasive Species	**GEF OP #:**	
UNEP's Strategic Priority/Objective:	Ecosystem Management	**GEF approval date:**	16 July 2009
UNEP approval date:	14 September 2009	**First Disbursement:**	22 September 2009
Actual start date:	23 September 2009	**Planned duration:**	48 months
Intended completion date:	22 September 2013	**Actual completion date:**	30 April 2014
Project Type:	Full Size Project (FSP)	**GEF Allocation:**	US$ 3,034,027
PDF GEF cost:	US$ 225,000	**PDF co-financing:**	US$ 748,222[1]
Expected MSP/FSP Co-financing:	US$ 3,379,367 (US$1,894,183 cash + US$1,485,184 in-kind)	**Total Cost:**	US$7,116,616
Mid-term review/eval. (planned date):	August 15, 2011	**Terminal Evaluation Start Date:**	14 March 2014
Mid-term review/eval. Start Day:	1 September 2011 (completion 19December2014)	**No. of revisions:**	1
Date of last Steering Committee meeting:	3 April 2014	**Date of last Revision:**	31December 2013 (Half Yearly Progress Report)
Disbursement as of 27 March 2014:	US$2,815,825.65 (including transfer to Cuba for meeting related services $21,261.63)	**Date of financial closure:**	30 June 2014
Date of Completion:	30 June 2014	**Actual expenditures reported as of 31 December 2013[2]:**	US$2,559,026.88
Total co-financing realized as of 30 June 2013:	US$5,457,008.17	**Actual expenditures entered in IMIS as of 30 June 2013[3]:**	US$ 1,558,475
Leveraged financing as of 30 June 2013[4]:	US$1,950,344.34		

[1] It should be noted that this amount has not been correctly indicated in the CEO endorsement neither in the Terms of Reference for the preparation of this TE. Correct co-financing: for PDF-A= US$418,100 and for the PPG= US$330,122.
[2] According to financial TO Q4 2013 (31 December 2014) received from UNEP Task Manager
[3] As indicated in ToR for the Terminal Evaluation
[4] According to co-financing report to 30 June 2014 received from Regional Executing Agency (CABI)

Figure 1: General Map of the Wider Caribbean with participating countries' names underlined and the limits of the Caribbean Hotspot (http://upload.wikimedia.org/wikipedia/commons/9/98/Caribbean_general_map.png under a 'Creative Commons License' http://creativecommons.org/licenses/by-sa/3.0/).

ACRONYMS AND ABBREVIATIONS

BEST:	Bahamas Environment, Science and Technology Commission
BNT:	Bahamas National Trust
CARDI:	Caribbean Agricultural Research and Development Institute
CARICOM:	Caribbean Community
CBD:	Convention on Biological Diversity
CEP:	Caribbean Environment Program, UNEP
CEPF:	Critical Ecosystem Partnership Fund
CHM:	Clearing House Mechanism
CIASNET:	Caribbean Alien Species Network Webpage
CISWG:	Caribbean Invasive Species Working Group
COTED:	Council for Trade and Economic Development
CZMU:	Coastal Zone Management Unit
DWCT:	Durrell Wildlife Conservation Trust
EMA:	Environmental Management Authority, Trinidad and Tobago.
FAO:	Food and Agriculture Organization
FFI:	Fauna and Flora International
FSP:	Full Size Projects
GEF:	Global Environment Facility
IA:	Implementing Agency
IMA:	Institute of Marine Affairs, Trinidad and Tobago
IMIS:	Integrated Management Information System
IPPC:	International Plant Protection Convention
IPSC:	International Project Steering Committee
ISC:	Invasive Species Compendium, CABI
ISWG:	Invasive Species Working Group
JCDT:	Jamaica Conservation and Development Trust
MSDEST:	Ministry of Sustainable Development, Energy, Science and Technology
MtE:	Mid-term Evaluation
MTIASIC:	Mitigating the Threat of Invasive Alien Species in the Insular Caribbean
NC:	National Coordinator
NEA:	National Executing Agency
NEPA:	National Environmental and Planning Agency, Jamaica
NISS:	National Invasive Species Strategy
NISSAP:	National Invasive Species Strategy and Action Plan
NIASSAP:	National Alien Invasive Species Strategy and Action Plan (Jamaica)
NSC:	Project National Steering Committee
OECS:	Organization of Eastern Caribbean States
OT:	Overseas Territory
PD:	Project Director
PMU:	Project Management Unit
POW:	UNEP Programme of Work
PPG:	Project Preparation Grant
RAMSAR:	Convention on Wetlands of International Importance especially as Waterfowl Habitat
RC:	Regional Coordinator
REA:	Regional Executing Agency
SEMARENA:	Secretaría Nacional de Medio Ambiente y Recursos Naturales, Dominican Republic
SLASPA:	Saint Lucia Air and Sea Ports Authority
SLDA(Anbaglo):	Saint Lucia Dive Association
SLNT:	Saint Lucia National Trust
SLU-IASWG:	Saint Lucia Invasive Alien Species Working Group
SMMA:	Soufriere Marine Management Association
SOH:	Sociedad Ornitológica de Hispaniola
SRDF:	Soufriere Regional Development Foundation

ROtI:	Review of Outcomes toward Impacts
TM:	Task Manager (UNEP's)
TE:	Terminal Evaluation
TNC:	The Nature Conservancy
ToR:	Terms of Reference
UNDP:	United Nations Development Program
UNEP:	United Nations Environment Program
USDA-APHIS:	US Department of Agriculture, Animal and Plant Health Inspection Service
WCR:	Wider Caribbean Region

EXECUTIVE SUMMARY

The "Mitigating the Threat of Invasive Alien Species in the Insular Caribbean (MTIASIC)" project was a full size project funded by the Global Environment Facility (GEF) and implemented by the United Nations Environment Programme (UNEP) through agreements with Regional and National Executing Agencies. Under the leadership of the Caribbean and Central America Regional Office of the Center for Agriculture Bioscience International (CABI), as 'Regional Executing Agency (REA)', five countries participated in the implementation of the MTIASIC project: Commonwealth of the Bahamas, Dominican Republic, Commonwealth of Jamaica, Saint Lucia and the Republic of Trinidad and Tobago.

The objective of the project was to mitigate the threat to local biodiversity and economy from invasive alien species (IAS) in the insular Caribbean, including terrestrial, freshwater, and marine ecosystems as a way to reach the goal of conserving the globally important ecosystems, species and genetic diversity within the insular Caribbean. The project planning phase, under GEF IV, started with a PDF-A grant in July 2006 and continued until GEF approval of its ProDoc in July 2009, for a total of three years. Total GEF investment in this project was US$3,034,030, and National Executing Agencies, their partners and regional project partners co-financed the project with more than US$5.5 million.

National executing agencies included: the Department of Marine Resources, Ministry of Agriculture, Marine Resources and Local Government, Bahamas; the Biodiversity and Wildlife National Directorate, Environment and Natural Resources Ministry, Dominican Republic; Projects, Planning and Monitoring Branch, National Environmental and Planning Agency (NEPA), Jamaica; the Forestry Department, Ministry of Sustainable Development, Energy, Science and Technology, Saint Lucia; the Research Division, Ministry of Food Production, Trinidad and Tobago.

The MTIASIC project has a very high strategic relevance. Participating countries are 'Small Island Developing States (SIDS)' in which each country is formed by several islands. They possess endemic biodiversity that is distributed across those islands. IAS have been reported to be among the first three major threats to biodiversity in the Caribbean and also impact negatively on agriculture production and health.

For nearly a decade before the 1992 "UN Conference on Environment and Development" and until the initiation of MTIASIC Project, Caribbean countries had repeatedly requested international assistance to build their capacity to deal with IAS. *MTIASIC was the first ever project* in the Caribbean that, through the creation of local capacities, intended to reach its objective of "mitigating the threat to local biodiversity and economy from IAS in the insular Caribbean, including terrestrial, freshwater, and marine ecosystems". The MTIASIC Project came to fill a recognized gap in terms of national and regional capacities.

The project had five programmatic components with thirteen outputs (and even more products):

I. Development of National IAS Strategies (**Outcome:** Increased national capacity to address potential risks posed to biodiversity of global significance from invasive alien species);
II. Establishment of a Caribbean Wide Cooperation and Strategy (**Outcome:** Increased regional cooperation to reduce risk posed to biodiversity of global significance from invasive alien species);
III. Knowledge generation, management and dissemination (**Outcome:** Access to data and best practice established, and public awareness of IAS strengthened);
IV. Prevention of new IAS introductions in terrestrial, freshwater and marine systems (**Outcome:** Increased capacity to strengthen prevention of new IAS introductions); and
V. Early detection, rapid response and control of IAS impacts (**Outcome:** Increased capacity to detect, respond, control and manage IAS impacting globally significant biodiversity).

The outputs and products of the project included: the creation of 'cross-sectorial' national invasive species working groups, a 'National Invasive Species Strategy (NISS)' for each country, a Invasive Alien Species (IAS) 'Critical Situational Analysis (CSA)' for each country, a Caribbean IAS regional strategy, a web page dedicated to providing updated IAS information to Caribbean countries, and twelve pilot projects on different aspects of preventing and managing IAS in terrestrial, freshwater and marine ecosystems.

The project went through a 'Mid Term Evaluation (MtE)' during the period September-December 2011, and several adaptive changes were introduced to the pilot projects following recommendations from the MtE. The changes

introduced to the pilot projects were meant to correct deficiencies in the general MTIASIC design, particularly the selection of IAS to be managed, whether the IAS could or could not be eradicated and issues related to the sustainability of the project, among other aspects.

The project's 'Theory of Change (ToC)' shows the existence of four clearly defined pathways that will move the participating countries from the current state of low capacity to increased national and regional capacity to achieve the project objective and get closer to achieving the long term goal. These four pathways are: national policies (Pathway 1), knowledge generation, management, and dissemination (Pathway 2), prevention of new invasions, early detection, rapid response and control of impacts (Pathway 3) and increased regional cooperation (Pathway 4). Pathways are closely related to but do not totally overlap with the project components.

Participating countries in the MTIASIC Project have witnessed gigantic leaps in their understanding and capacity to manage IAS, and most are moving quickly to increasing their institutional and human capacities through establishing national invasive species working groups, backed up by regulations and laws, aimed at serving as cross sectorial coordination mechanisms on IAS subjects. In three countries the national invasive species working groups (NISWG) is backed up by regulations from the executive office (Dominican Republic, Jamaica and Trinidad and Tobago). In Saint Lucia, a bill has been proposed for Cabinet approval of an IAS Act, and Bahamas has committed (verbally) to house the NISWG within the Environment Ministry.

The countries have been successful not only because all countries completed their NISS and CSAs, but also because of significant increases in the awareness of the need to work on IAS and bring them under adequate management.

Country ownership and Driven-ness have been strong in Dominican Republic, Jamaica and Trinidad and Tobago, where it is expected that financial resources necessary to keep the NISWGs running will continue after the project. In Saint Lucia, ownership and driven-ness have been moderate until now but they are expected to increase significantly upon the approval of the proposed IAS Act. Bahamas has made verbal commitments to house the NISWG at the Environment Ministry, an important decision that will hopefully be made soon.

As a whole, the project outcomes seem likely to be sustainable, with some outcomes that are highly likely to be sustainable.

A series of lessons learned have been collected from the project and the most important seems to be related to the planning phase of the project: When planning a project and selecting pilot projects, the project planning team needs to take advantage of all technical resources available, regionally and globally, and engage the most experienced practitioners and agencies in the field. Some activities may require the preparation of feasibility assessments, which = is particularly important for IAS management.

IAS management and eradication projects must go through a well-established sequence of planning steps if they are to succeed and financial resources and time are going to be used effectively and efficiently.

The evaluation allowed to draw a series of recommendations that will help other countries and teams to prepare similar projects. The recommendations are also aimed at helping to ensure that the outcomes of the MTIASIC project are sustainable in the long term.

Probably the most important recommendation is that GEF, UNEP and countries participating in MTIASIC should consider following the MTIASIC Project with a GEF 'Programmatic Approach'.

EVALUATION CRITERIA TABLE		
Criterion	**Summary Assessment**	**Rating**
A. Strategic relevance	MTIASIC fills a major, amply recognized gap by Caribbean countries in relation to national capacities and transboundary/regional cooperation. The project is well aligned with UNEP 2010-2011 POW, particularly Step 1, as well as UNEP's policies related to the Bali Strategic Plan for Technology Support and Capacity Building. At the same time, the project falls under GEF 4's Long-term Objectives 1 and 3, particularly in Strategic Program 7 about 'Prevention, Control and Management of Invasive Alien Species'	HS
B. Achievement of outputs	Each Output and its individual products were rated, as shown in Table 17 in the 'Conclusions' section (page 81). Detailed examination of the 'National Invasive Species Strategies' and the 'Critical Situational Analysis' was carried out.	S
C. Effectiveness: Attainment of project objectives and results	In spite of serious problems with some pilot projects, there are many significant products coming out of the project, outcomes are leading to impacts and countries are moving much faster than ever in the right direction. In many cases, biodiversity and economic benefits are becoming evident.	S
1. Achievement of direct outcomes	The project had mixed results in achieving the immediate outcomes resulting from outputs. Effectiveness of the project was adequate but certainly the capacity to generate the products varied from country to country. In some countries pilot project staff felt overloaded with work.	S
2. Likelihood of impact	All countries have increased significantly their capacity to deal with IAS. Regional cooperation started since the project's inception workshop, not only among MTIASIC participant countries but between those and the rest of the WCR. The project has been highly successful to help keep off shore islands in Saint Lucia IAS free, and to prevent the arrival of Frosty Pod Rot in Trinidad and Tobago.	S
3. Achievement of project goal and planned objectives	There is no doubt that countries are moving in the direction of reaching the project objective and goal (even if the former is enunciative and difficult to quantify).	S
D. Sustainability and replication	In some instances, it is still early to appreciate the changes generated/propelled by MTIASIC. However, the processes that will move countries closer to the project objective and goal are in place.	L
1. Financial	It seems highly plausible that the governments of at least Dominican Republic, Jamaica and Trinidad and Tobago will allocate funds for IAS control and management. GEF 6 represents an opportunity to deepen work on biodiversity conservation through IAS management.	L
2. Socio-political	Country ownership is excellent in Jamaica, Dominican Republic and Trinidad and Tobago (more on biodiversity conservation in the first two countries and biased toward agricultural pests in the last country), and adequate Saint Lucia and Bahamas.	HL
3. Institutional framework	Three national ISWGs are backed by regulations and two new coordination positions have been created in Dominican Republic, Jamaica and Trinidad and Tobago, while Saint Lucia has introduced a bill to Parliament for a new law and Bahamas has made verbal assurances about hosting the ISWG in the Environment Ministry.	L
4. Environmental	No negative effects of the project are anticipated.	L
5. Catalytic role and replication	One of the major achievements of the project has been the training of local people across several islands on how to use Lionfish as food. The project served as a good vehicle for disseminating lessons learned and information. The project is considered to have high catalytic potential and capacity building by all project directors.	HS
E. Efficiency	Low expenditure rate and inefficiencies in project's years 1 and 2 are mostly due to problems in its design and the take-off/learning periods. Increased expenditure efficiency in years 3 and 4 are due to increased capacity and adaptive changes to the pilot projects.	S
F. Factors affecting project		

performance		
1. Preparation and readiness	The factors that most influenced the quality-at-entry of the project were: i) Lack of local capacity/knowledge of IAS management, ii) Not engaging sufficient international partners (those with expertise on the subject), iii) Small project budget, including funds for the Regional Coordinator to provide adequate backstopping to NEAs.	MS
2. Project implementation and management	Implementation mechanisms outlined in the project document and confirmed through the contracts between the REA and the countries were followed as expected.	S
3. Stakeholders participation and public awareness	Public Awareness campaigns were one of the project strengths, something widely recognized in newspapers, TV and radio. Stakeholder engagement was strong and significant.	HS
4. Country ownership and driven-ness	Countries took full responsibility for running the project and co-financing gathered exceeded significantly initial commitments.	S
5. Financial planning and management	Financial management of the project seemed to have been done according to internationally accepted standards. Variances shown as of December 31, 2013 are in general inferior to 10%, with the exception of Trinidad and Tobago, Jamaica and the consultants' category.	S
6. UNEP supervision and backstopping	Project supervision and backstopping by UNEP was adequate, and training of NC and other project staff during project inception was very well conducted.	S
7. Monitoring and evaluation	The M&E Plan included in the ProDoc was adequate and complete. It also included a 'costed' evaluation framework.	S
a. M&E Design	The logframe contains Smart or 'quasi-smart' indicators for all project objectives/outputs. They are clearly defined and easy to understand	HS
b. Budgeting and funding for M&E activities	The REA did not have funding for proper monitoring of activities in-country or for back-stopping countries.	MS
c. M&E Plan Implementation	In addition to regular M&E activities by the project's Task Manager, both the MtR and the TE were conducted within adequate timeframe, including visit to participant countries and a few pilot sites.	S
Overall project rating		**S**

I. INTRODUCTION

EVALUATION AND PROJECT NAMES

1. This document is the "Terminal Evaluation Report" of the "Mitigating the Threat of Invasive Alien Species in the Insular Caribbean (MTIASIC)" project, funded by the Global Environment Facility (GEF) and implemented by UNEP through agreements with the Regional and National Executing Agencies listed in subsequent paragraphs.

2. With the objective of "mitigating the threat to local biodiversity and economy, including terrestrial, freshwater, and marine ecosystems from invasive alien species (IAS) in the insular Caribbean", the project's goal is "to conserve the globally important ecosystems, species and genetic diversity within the insular Caribbean". The project planning phase, under GEF IV, started with a PDF-A grant in July 2006 and continued until GEF approval of its Project Document in July 2009, for a total of three years. The referenced PDF-A followed join efforts by UNEP's Caribbean Environment Program (CEP) and CABI who that year implemented the project "National and Regional Capacities and Experiences on Marine Invasive Species, Including Ballast Waters, Management Programs in the Wider Caribbean Region - a Compilation of Current Information"[5]. This document indicates: "A Regional Action Plan with stakeholder participation is needed to link together individual national and / or sub-regional plans to regional and global plans, in order to maximize synergies and narrow gaps and differences". As this TE report describes in subsequent sections, the MTIASIC project included, among other outputs, the preparation of the Caribbean regional IAS strategy.

PROJECT DURATION

3. The project was planned for a total implementing period of 47 months and was extended for seven months.

4. Commencing on September 22, 2009, the project was set for completion on July 2013. However, at the end of the third year of implementation, only two countries (Bahamas and Saint Lucia) had reached 75% implementation of the planned resources while the other three countries were under 50% implementation. During the Fourth Meeting of the International Project Steering Committee (IPSC), which took place on November 2012, Dominican Republic, Jamaica and Trinidad and Tobago formally requested a six month no-cost extension of the project, postponing project completion to March 31st, 2014. Still, the terminal workshop "Policies, Strategies and Best Practices for Managing Invasive Alien Species (IAS) in the Insular Caribbean" took place in Port of Spain, Trinidad, between March 31 and April 4th, 2014, moving the project completion slightly to the end of April 2014. A few minor activities are still pending, and the financial closure of the project will take place late June or July 2014. Overall, an implementation period extension of seven months could be considered acceptable given the complexities of the project and the challenges that the NEAs and the REA had to face.

PROJECT COST

5. Originally, the project cost estimate was US$6,413,400, not counting the Implementing Agency (IA) fees. Of this amount, US$3,034,030 were to be provided by GEF and the rest represented co-financing to be contributed by participating countries, both in cash and in-kind.

6. The PDF-A of the project had a cost of US$25,000 and led to a subsequent Project Preparation Grant (PPG) of US$200,000, which started to be implemented in April 2008. While total co-financing for PDF-A and PPG was US$748,222, it needs to be emphasize that the actual PPG was by all means small and a lost opportunity. A bigger PPG could have allowed to bring in much needed technical assistance as noted along the entire report. Among the main objectives of the PPG phase was the collection of data and the carrying out of preparatory workshops for the selection of high leverage pilot projects for each participating country.

1. According to Lopez and Krauss (2006).

IMPLEMENTING AND EXECUTING PARTNERS

7. Under the leadership of the Caribbean and Central America Regional Office of the Center for Agriculture Bioscience International (CABI), as 'Regional Executing Agency (REA)', five countries participated in the implementation of the MTIASIC project: Commonwealth of the Bahamas, República Dominicana (Dominican Republic), Commonwealth of Jamaica, Saint Lucia and the Republic of Trinidad and Tobago. The most up-to-date key statistics for the five participant countries are presented in Table 1, including total number of islands and islets in each nation, the number of animal and plant species in IUCN Red List categories CR and VE, the number of islands that are home to CR and EN species, number of islands currently invaded by IAS, and important socio-economic data.

8. The Republic of Cuba participated in PDF-A activities but withdraw from further work as it pursued a single-country FSP ("Enhancing the Prevention, Control and Management of Invasive Alien Species in Vulnerable Ecosystems", GEF ID 3955, UNDP PMIS ID 3990).

9. One 'National Executing Agency' participated for each country:

    a. Bahamas:
    Department of Marine Resources
    Ministry of Agriculture, Marine Resources and Local Government
    East Bay Street
    Nassau, Providence

    b. Dominican Republic:
    Dirección de Biodiversidad y Vida Silvestre
    Ministerio de Ambiente y Recursos Naturales Renovables[6]
    Cayetano Germosén esq./Av. Gregorio Luperón, Sector El Pedregal
    Santo Domingo

    c. Jamaica:
    Projects, Planning and Monitoring Branch
    National Environmental and Planning Agency (NEPA)
    10 Caledonia Ave
    Kingston

    d. Saint Lucia:
    Forestry Department
    Ministry of Sustainable Development, Energy, Science and Technology
    Gabriel Charles Forestry Complex, Union
    Castries
    Saint Lucia

    e. Trinidad and Tobago:
    Research Division
    Ministry of Food Production[7]
    Central Experiment Station
    Caroni North Bank Road, Centeno
    Trinidad

[6] When the Project was approved by GEF, the NEA was the 'Secretaría Nacional de Medio Ambiente y Recursos Naturales (SEMARENA)'. In 2010, as per a Presidential decree, all National Secretariats changed their name and status to Ministries, without diminishing their functions and legal responsibilities. Therefore, this new name for the Dominican Republic's NEA.
[7] At the inception of MTIASIC, the local EA was the 'Ministry of Food Production, Lands and Marine Affairs. However, in June 2012 this Ministry was split into Food Production and a new Ministry of Environment and Water Resources. The project remained as a responsibility of the former.

Table 1: Countries participating in the MTIASIC project: Most up-to-date statistical information.

	Bahamas	Dominican Republic	Jamaica	Saint Lucia	Trinidad & Tobago
Total land national area (km^2) (1)	13,878	48,442	10,991.00	617.00	5,131.00
Exclusive Economic Zone (EEZ) (km^2) (2)	629,293	269,285	263,283.00	15,484.00	77,502.00
Per capita, nominal Gross Domestic Product (GDP in US$; 2012) (3)	21,908	5,745.78	5,449.10	6,848.23	17,436.50
Country's 2012 Account Balance (million US$) (3)	-1,499.7	-4,037.00	-1,904.77	-184.36	2,898.59
Population estimate to 2012 (3)	371,960	10,280,000	2,708,000	180,900	1,337,000
Tourist (stop-over) arrivals (2013)	1,363,487	4,689,770	2,008,409	318,626	387,559 (8)
Cruise-ship visitors (2013)	4,709,236	423,910	1,288,184	594,118	49,159 (8)
Environmental Vulnerability Index (EVI) (5)	248 (at risk)	324 (highly vulnerable)	381 (extremely vulnerable)	393 (extremely vulnerable)	381 (extremely vulnerable)
Number of protected areas (all categories) (4)	44	119	169	83	83
Land area under protection (%) (4)	13.66	22.21	18.89	14.26	31.24
Marine Area under protection (%) (4)	0.41	30.37	4.16	0.06	2.81
RAMSAR sites (4)	1	4	4	2	3
Threatened animal species in IUCN Red List (CR, EN, VU) (6)	62	105	77	44	54
Threatened plant species in IUCN Red List (CR, EN, VU)	8	38	212	6	1
Total number of islands, islets and major rocks (9)	1,897	54	47	9	37
Number of Islands with threatened native terrestrial vertebrates Species (CR, EN) / Islands with Alien Vertebrate Species (10) (i)	21 / 20	5 / 5	3 / 3	4 / 4	3 / 2

(1) From http://en.wikipedia.org/wiki/Main_Page under the "Creative Commons Attribution-ShareAlike 3.0 Unported License"
(2) From Seas Around Us, Pew Charitable Trust http://www.seaaroundus.org/eez/44.aspx
(3) World Bank Data: http://data.worldbank.org/
(4) UNEP-World Conservation Monitoring Center: http://protectedplanet.net/
(5) Environmental Vulnerability Index: http://www.vulnerabilityindex.net/EVI_Country_Profiles.html
(6) IUCN Red List 2013: http://www.iucnredlist.org/
(7) Caribbean Tourism Association: http://www.onecaribbean.org/
(8) Tourism data from Trinidad and Tobago Tourism Development Company Ltd: http://www.tdc.co.tt/index.htm for 2010 and 2012 respectively
(9) UNEP & WCMC, Global Island Database Version February 2010.
(10) Threatened Island Biodiversity Database: http://tib.islandconservation.org/

(i) It must be highlighted that most reptile taxa have not been assessed for the IUCN Red List and a good number need to be urgently re-assessed. Therefore, the real number of CR and EN species should be significantly higher than indicated in this table.

10. Importantly, since the planning phase of the project, a considerable number of agencies and organizations became engaged in it either as executing partners or simply as stakeholders during the several participatory processes generated by MTIASIC. Levels of engagement and support provided varied significantly. ANNEX D presents an inclusive list of project partners and stakeholders.
11. The efforts and effectiveness of the Regional Executing Agency as well as backstopping from UNEP's Task Manager were amply recognized and appreciated by NCs and Project Directors, and by executing partners and stakeholders as well. Additionally, interviewees were very candid in providing feedback on the limitations of the projects, issues that could have been managed in better ways and lessons learned for future projects.

II. THE EVALUATION

OBJECTIVES

12. As per GEF and UNEP's evaluation policies, this terminal evaluation has as its two most important objectives:

    a. to promote accountability and transparency, and to assess and disclose levels of project accomplishment,
    b. to synthesize lessons that may help improve the selection, design, and implementation of future GEF activities.

    The TE should also include provisions for follow up research/studies and, upon completion, should be made available and known to stakeholders

13. GEF's Technical Document 3 on terminal evaluations and implementing agencies[8], indicates that all FSPs must go through a TE at the end of the implementation period. Such evaluation is to be conducted within six month before or after project completion. The TE report should be sent to the GEF Evaluation Office after its completion but no more than 12 months after the project completion.

APPROACH

14. This TE has been conducted following the principles and guidelines described in four methodological and guideline publications:

    a. GEF's 2008 "Technical Document 3. Guidelines for GEF Agencies in Conducting Terminal Evaluations",
    b. UNEP's "Evaluation Manual" from 2008,
    c. UNEP's "Evaluation Policy" book from 2009, and
    d. GEF's 2010 "The GEF Monitoring and Evaluation Policy".

    UNEP's evaluation policies identify a set of core principles that should be followed in all evaluations, and determines that the guiding principles are: Accountability, Learning, Ethics and Independence.

15. Accountability is a guiding principle as the evaluation's primary purpose is to provide substantive accountability for the resources provided to the organization to implement its programme activities. Learning from evaluations is a key principle and should include identification and timely dissemination of lessons, development of useable relevant recommendations and promoting the uptake of evaluation findings and lessons into future project design. UNEP's evaluations must be independent as clearly indicated in the "United Nations System Norms and Standards", subscribing to both organizational and behavioral independence. The evaluation function must ensure freedom from undue influence to facilitate objective assessment of programme and project activities. Evaluators should be able to submit clear, accurate, objective uncompromising and uncensored reports to the senior management and relevant stakeholders without fear of recrimination.

[8] GEF. 2008. *Guidelines for GEF Agencies in Conducting Terminal Evaluations.* Technical Document 3, Washington, D.C.

16. Importantly, UNEP's "Evaluation Manual" clearly states that the "evaluation report be 'evidence-based' and that key judgments on project performance, findings and recommendations should be supported by verifiable sources of information.

17. ANNEX A includes the complete 'Terms of Reference' (ToR) for this TE (without the annexes it originally contained). The ToR include a complete explanation of the evaluation methodology and detailed description of the 'Evaluation Criteria Categories': a) strategic relevance; b) achievement of outputs; c) effectiveness and attainment of objectives and planed results; d) sustainability, replicability and catalytic role; e) efficiency; f) factors affecting project performance; and g) complementarity with UNEP's strategies and programs.

18. With the exception of criterion d, criteria a through f will be evaluated using a six points grading scale: Highly Satisfactory (HS), Satisfactory (S), Moderately Satisfactory (MS), Moderately Unsatisfactory (MU), Unsatisfactory (U), and Highly Unsatisfactory (HU). Criterion d, related to sustainability, will be evaluated using a similar scale based on the likelihood of reaching intermediary states and/or final outcomes: from Highly Likely (HL) down to Highly Unlikely (HU). Based on the project's initial logframe (ANNEX E) and the guiding questions used for this TE, a complete evaluation framework was prepared. It is presented in ANNEX F, including guiding questions and other details (taken from the Terminal Evaluation Inception Report). It needs to be highlighted that during the after the MtE, UNEP and CABI prepared an updated version of the logframe for the project which reflects changes introduced to MTIASIC and its pilot projects; this is discussed further below in the section "Changes in design during implementation". As for the guiding questions, while many of those come directly from the ToR, in the case of criteria pertaining to 'Strategic Relevance' and 'Achievement of Outputs' most questions have been crafted after reading the Project's ProDoc and MtE. Considered necessary for a full understanding of this TE report, ANNEX G consist of a brief description of the methodology for the 'Review of Outcomes toward Impacts' (extracted from annexes to the ToR).

19. As clearly stated in the ToR, regarding grading the different evaluation criteria, *"performance judgments are made always noting that project contexts can change and that adaptive management is required during project implementation"*.

20. The TE evaluation on which this report is based has been conducted through a participatory process that included visits to the five participant countries, where interviews to NCs, PDs and key implementing partners took place. The different phases of the evaluation were sequenced around the 'terminal workshop' that took place in Port of Spain, Trinidad:

    i. Desk review, interview with evaluation officer and first and second interviews with UNEP's Task Manager;
    ii. Attending the "Policies, Strategies and Best Practices for Managing Invasive Alien Species (IAS) in the Insular Caribbean" workshop in Port of Spain, Trinidad, between March 31 and April 4th, 2014. Interviews to NC and PD as well as partners from Trinidad and Tobago were also conducted during this week;
    iii. Visits to Saint Lucia, Jamaica, Dominican Republic and Bahamas from 04/07 through 04/17, 2014;
    iv. Preparation of inception report (submitted 05/06/2014);
    v. Preparation of first complete draft of final report (submitted 06/13/2014).

21. A total of 53 officers and staffers from the REA, NEAs, members of National Steering Committees (NSCs), project partners and practitioners, as well as Operational Focal Points to GEF and Focal Points to CBD, were interviewed during the country visits and afterward. Most interviews were in person but a good number of them needed to be conducted by Skype or telephone. In a few cases the person was interviewed twice. ANNEX C contains the complete list of interviews.

22. Importantly, the TE process included the participation on the regional Caribbean workshop "Policies, Strategies and Best Practices for Managing Invasive Alien Species in the Insular Caribbean' which allowed for having a deep understanding the entire project in a very brief period of time.

Lesson Learned [9](L.L.)	A technical workshop at the end of the project helps consolidate acquired knowledge and linkages among participating executing partners and other partner groups. It also provides for an excellent opportunity to initiate the Terminal Evaluation. If adequate, future projects should consider including and budgeting for a terminal workshop to present the project results. This workshop should take place after all activities have been completed. In the case of regional projects, the workshop should take place after all countries have presented their 'final reports', which ideally would be presented during the event.

LIMITATIONS

23. The evaluation methodology used in this TE comes from a continued process of learning and improvement, as both GEF and UNEP have conducted a huge number of project evaluations across the world and along a few decades. In that sense, it is highly elaborated methodology. Furthermore, when comparing the ToR for this TE with TE reports from the past few years[10], it seems that there has been important refinements of the proposed methodology and evaluation structure. Still, the methodology does not seem to provide adequate latitude for balancing the rating of evaluation criteria applied to different outputs/intermediary outcomes when one of them is having gigantic gains towards higher outcomes and objectives while another output/intermediary outcome may not be achieving its intended results. Such are cases found in this project in which some of the pilot projects may never reach the eradication or IAS control objectives they have been set forth but still there are significant gains in capacity building, public awareness and information generation.

24. The ToR and evaluation arrangements followed the recommendation from the MtE (page 15) which suggests having the financial support for visiting the five participant countries during the TE. During country visits, the net time available for interviews and any other TE activity was just one work day (Bahamas) and in most cases only a day and a half (Dominican Republic, Jamaica, Saint Lucia). Under those circumstances, in general, pilot site visits were not possible. For this TE, field visits were conducted to the Nariva Swamp, Trinidad, and Maria Island, Saint Lucia, though they were not included explicitly in the ToR. Site visits can increase the evaluator's understanding of achievements or limitations in a pilot project, and will improve significantly the opportunity to extract lessons learned. E.g., for this TE, the visit to the Nariva Swamp provided new understandings on the importance of the pilot project with Red Palm Mite vis-à-vis conserving native biodiversity in Nariva through work with an agriculture pest that is affecting local coconut production.

L.L.	During project evaluations, visits to pilot sites can enhance significantly the Evaluator's understanding of the project and its achievements. Whenever financially and practically possible, terms of reference for terminal evaluations should include a pilot site visit per country or more than one site if it is a single country project.

25. The time of the year in which the country visits were set coincided partially with the Christian Holy Week, starting with Palm Sunday that fell on April 13 this year. In many countries either or both Holy Thursday and Holy Friday are national holidays. As it is often the case, many people take advantage of these national holidays and go on leave for the entire week. Interviewees may not be available for necessary face-to-face interviews. This was precisely the case in Dominican Republic. In Bahamas, interviews scheduled for Wednesday before Holy Thursday were all conducted but it was not possible to extend the visit for one more day for additional interviews and a possible field visit. Finding airline reservations around major holidays may be difficult.

[9] Along the TE report, text boxes collect the lessons learned and associated recommendations that refer to the specific cases discussed in that page (as in this case).
[10] See references ANNEX for: Varty, Nigel (2007), Edwards, Phillip (2012), E. Kiff and C. Oti-Boateng (2012) and T. Barbour (2013).

26. Upon announcement of the TE commencing, UNEP's Task Manager (TM) did a very expedite job in creating shared DropBox folders and requesting the Regional Coordinator and NCs that information/products be uploaded to the DropBox. Still, it took weeks and repeated emails from the TM to get all country folders populated to a minimum level, and even during the first few days of June 2014 key information pieces were still missing. Countries varied significantly in their understanding of what was necessary and requested, having one country with 5.62 Gb in 768 files and 146 folders (only a small number of pictures) and, on the other extreme, another country with only 22 files in one folder (of which half were pictures). Both extremes are inadequate. Doing fact searches through hundreds of documents with 'codified file names' is extremely difficult and is as bad as having very poor information. This issue was already raised during the MtE. The conclusion, which will become a recommendation of this terminal evaluation, is that as projects start and are implemented, a culture of 'monitoring and evaluation' needs to be instilled across project components and staff. Those working in the direct execution of projects must put in place a clear and easy system for archiving information and project products. This process must go hand in hand with implementation and not be done at the end when the evaluation is to start.

L.L.	In spite of project staffers and executing agencies' willingness to share information, it may be difficult to adequately organize all necessary materials at the end of the project (precisely when there is pressure on executing agencies to wrap up activities and produce all necessary reports). Preparation for MtE and TE needs to start the same day the project begins by taking simple measures to ensure that products and documents are consistently filed, labeled and 'cross-referenced'. Minutes and reports should include place and date of the meeting or activity in the text. Copying and pasting should be done with extreme care to avoid having documents with entire sections duplicated (sometimes outdated).

III. THE PROJECT

A. CONTEXT

International Policies and Agreements on IAS in the Caribbean

27. Concern about the impact of invasive alien species among Caribbean countries preceded the 'Convention on Biological Diversity (CBD)' for almost a decade. In 1983, all but one of the countries present in the wider Caribbean signed the 'Convention for the Protection and Development of the Marine Environment of the Wider Caribbean', commonly known as the Cartagena Convention, which already contained considerations about not introducing and controlling IAS in the Caribbean (Art. 5, #2f & Art. 12). Furthermore, these countries also adopted the Cartagena Convention's Protocol on Special Protected Areas and Wildlife Species (SPAW), from 1990,

28. In 1992, at the "UN Conference on Environment and Development", often called the 'Earth Summit', which took place in Rio de Janeiro, Brazil, countries signed the 'Convention on Biological Diversity', which expresses the commitment of the parties to *"Prevent the introduction of, control or eradicate those alien species which threaten ecosystems, habitats or species"* (Art. 8, p. h). All countries participating in the MTIASIC project have signed and ratified the CBD.

29. In 1994, following recommendations agreed upon during the Earth Summit and in close cooperation with countries members of the 'Alliance of Small Island Developing States (AOSIS)[11]', formed in 1991, the "UN Commission on Sustainable Development" convened the 'First Global Conference on Sustainable Development of Small Island Developing States', in Barbados. In this conference, participating countries adopted a series of resolutions that are known as the 'Barbados Programme of Action' which states that "… the introduction of certain non-indigenous species are the most significant causes of the loss of biodiversity in 'Small Island Developing States' (clause 41) and that participating countries need to "…formulate and implement integrated strategies for the conservation and

[11] See: http://aosis.org/

sustainable use of terrestrial and marine biodiversity, in particular endemic species, including protection from the introduction of certain non-indigenous species…" (Clause 45 A (i)).

30. For the next several years, the 'Convention of the Parties' to CBD continued encouraging Parties to act:

    a. In 1998, during COP 4, through Decision 1C, Parties recognized *"the significant adverse ecological and economic effects of certain alien species on biological diversity and human health"* and invited *"the Parties to address the issue of alien species for the conservation and sustainable use of biological diversity and to incorporate such activities into their national strategies, programmes and action plans."*

    b. In 2000, during COP 5, in Kenya, the Conference of the Parties (Decision V/8) "…**Urges** Parties, other Governments and relevant bodies to give priority to the development and implementation of alien invasive species strategies and action plans", "**Strongly** encourages Parties to develop mechanisms for transboundary cooperation and regional and multilateral cooperation in order to deal with the issue" and "to apply the interim guiding principles contained in annex I to the present decision…" (See).[12] All countries participating in MTIASIC had already ratified the CBD.

31. In 2001, the United Kingdom signed individual 'Environmental Chapters' with its Overseas Territories (OT), which included considerations about "…appropriate management structures and mechanisms, including a protected areas policy, and attempt the control and eradication of invasive species". As presented in Table 2, there are five UK Overseas Territories (UKOT) in the Caribbean, most of which are associate members of the CARICOM and full members of the Organization of Eastern Caribbean States (OECS).

32. In 2002, similar to paragraph 31 above, the CBD's COP 6 continued giving attention to IAS and their impacts on biodiversity and local economies, reconfirming through Decision VI/23 the need for strengthening national capacities and international collaboration, including the formulation of National invasive alien species strategies and action plans, and following 'Guiding principles' already suggested by COP 5.

33. In 2003, an important step forward was giving in the Caribbean with the publication of the report "Invasive Alien Species in the Caribbean Region". Commissioned by The Nature Conservancy to CABI, the study assessed current state of knowledge, work and institutional capacity on IAS matters in 25 island states and OTs. This was the first ever comprehensive report on IAS for the Caribbean and provided detailed information on 552 IAS identified as present and naturalized.

34. International attention on IAS, including in the Caribbean region, continued building up as noticed by subsequent decisions made by the CBD's 'Convention of the Parties':

    a. COP 7, in Kuala Lampur, in 2004, on Decision VII/13, requesting action to address gaps and inconsistencies in regulatory frameworks on IAS at national and international levels vis-à-vis new the RAMSAR Convention and the recently adopted "International Convention for the Control and Management of Ships' Ballast Water and Sediments" and "International Plant Protection Convention (IPPC);

    b. COP 8, in Curitiba, Brazil, in 2006, on Decision VIII/27, which addresses IAS in the context of tourism, aquaculture, military activities, pet trade and aquariums, international development assistance and many other activities categories, and urges Parties to share experiences through the CBD's 'Clearing House Mechanism (CHM).

35. In 2005 and 2006 two major benchmarks were reached by the Caribbean. First, in 2005, upon presenting the report entitled "Caribbean Regional Invasive Species Intervention Strategy" (CRISIS)", the Caribbean Invasive Species Working Group (CISWG), originally formed as an ad-hoc group in 2003, was given legitimacy by the CARICOM's Council for Trade and Economic Development (COTED). A year later, in 2006, the first comprehensive assessment

[12] All CBD Decisions related to IAS can be found in http://www.cbd.int/invasive/cop-decisions.shtml

related to national and regional capacities and experiences on marine invasive species was presented by CABI[13]. The report, commission by UNEP's Caribbean Environment Programme, was prepared through a participatory process and several workshops and consultations.

36. In 2006, UNEP, CABI and countries whose interest on controlling IAS had been made explicit, joined forces for the preparation of a PDF-A document presented to the GEF Secretariat, starting the process that led to this MTIASIC Project. These countries also expressed their commitment to dedicate a portion of their GEF fund allocation to the project. These are the five participant countries to MTIASIC (less Cuba, as explained before): Bahamas, Dominican Republic, Jamaica, Saint Lucia and Trinidad and Tobago.

37. In December 2007, the PDF-A was followed with the presentation to the GEF Secretariat of a PPG request in the amount of US$200,000. The PPG implementation started April 2008 and concluded January 2009. This phase was particularly important for the project as participant countries prepared their first version of the 'IAS Critical Situational Analysis' (CSA). Furthermore, through CSAs preparation countries were able to identify the potential pilot projects to be funded through the project. CSAs preparation were very participatory activities led by country teams, with support from CABI and UNEP. It was agreed that final versions of the CSAs would be finalized during the implementation of MTIASIC.

38. In 2008, as progress was being made in the Caribbean and, specifically, with regards to MTIASIC, Parties to the CBD also continued their work by adopting Decision IX/4 during COP 9, in Bonn, Germany. Among many other considerations on IAS, the Decision calls for an in-depth review of work on IAS and "**requesting**" the GEF "to support developing countries, in particular the least developed countries and small island developing states, as well as countries with economies in transition, to implement national strategies and programmes on invasive alien species, noting also countries that are centres of origin".

39. In July 2009 the ProDoc for the project 'Mitigating the Threat of Invasive Alien Species in the Insular Caribbean (MTIASIC)' was approved by GEF. As implementing agency, UNEP approved the project September 14, 2009, initiating implementation on September 22.

Countries Participating in the MTIASIC Project

40. In total, 28 international conventions and protocols have been mapped in the Caribbean. Not a single country is Party or Signatory to all of them[14]. All countries participating in MTIASIC are Party or, in a small number of cases, at least Signatory of the most important 'Multilateral Environmental Agreements' (MEA): Convention on Biological Diversity (CBD), Cartagena Convention, Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), UN Framework Convention on Climate Change (UNCCC), International Plant Protection Convention (IPPC), among others.

41. Table 2 presents the participant countries in the context of key intergovernmental treaties in the Caribbean; it also indicates adhesion to the Cartagena Convention and the SPAW Protocol. At project inception, the only participant country not adhering to the Convention and the Protocol was Bahamas, a situation reverted in 2010 when this country became Party to both.

[13] See in References V. Lopez and U. Krauss (2006)
[14] See in References P. Polar and U. Krauss (2008)

Table 2: MTIASIC participating countries in the context of the insular Caribbean

			2013 Population estimate (1)	Cartagena Convention Party (1983)	Specially Protected Areas and Wildlife Protocol (2000)	CARICOM Members (M) and Associate Members (AM) (2)	OECS Organization of Eastern Caribbean States (3)	ACS Association of Caribbean States (4)
Insular Caribbean	MTIASIC Project Countries (5 countries)	Bahamas	371,960	Party	Party	M		M
		Dominican Republic	10,280,000	Party	Party			M
		Jamaica	2,708,000	Party	Signatory	M		M
		Saint Lucia	180,900	Party	Party	M	M	M
		Trinidad and Tobago	1,337,000	Party	Party	M		M
	Other Insular Caribbean Independent States (8 countries)	Cuba	11,163,000	Party	Party			M
		Haiti	10,671,000			M		M
		Barbados	276,000	Party	Party	M		M
		Grenada	103,000	Party	Party	M	M	M
		Saint Vincent and the Grenadines	97,000	Party	Party	M	M	M
		Antigua and Barbuda	88,000	Party	Signatory	M	M	M
		Dominica	71,000	Party	Signatory	M	M	M
		Saint Kitts and Nevis	55,000	Party	Signatory	M	M	M
	Other Nations and Territories in the Insular Caribbean (4 countries)	Guadaloupe (France)	409,000	Party	Party			M
		Martinique (France)	398,000	Party	Party			M
		Saint Martin (France)	39,000	Party	Party			M
		Saint Bathélemy (France)	10,000	Party	Party			M
		Curacao (Kingdom of Netherlands)	155,000	Party	Party			M
		Aruba (Kingdom of Netherlands)	105,000	Party	Party			M
		Sint Maarten (Kingdom of Netherlands)	41,000	Party	Party			M
		Bonaire, Sint Eustatius, and Saba Special Municipalities (Kingdom of Netherlands)	23,000	Party	Party			M
		Cayman Islands (UK)	60,000	Party	Signatory	AM		
		Turk's and Caicos (UK)	33,000	Party	Signatory	AM		
		British Virgin Islands (UK)	32,000	Party	Signatory	AM	M	
		Anguilla (UK)	14,000	Party	Signatory		M	
		Montserrat (UK)	50,000	Party	Signatory	AM	M	
		Puerto Rico (US)	3,641,000	Party	Party			
		US Virgin Islands (Saint Croix, Saint John, Saint Thomas and Water Islands)	106,000	Party	Party			

(1) Population estimates to July 2013 from Wikipedia.com. For MTIASIC countries, population information comes from the World Bank (See Table 1 in this report)
(2) CARICOM members from www.caricom.org
(3) OECS members from http://www.oecs.org/
(4) ACS members from http://www.acs-aec.org/

42. Prior to the MTIASIC Project, among its participant countries, only Bahamas counted with a 'National Invasive Species Strategy', prepared by the Bahamas Environment, Science and Technology Commission (BEST) in 2003. None of the five countries had analytical, strategic documents about IAS (in the sense of a 'Critical Situational Analysis'). The Bahamas' National Biodiversity Strategy and Action Plan (NBSAP), prepared in 1999, does not have a specific section on IAS but contains a series of provisions and discussions about the impact that alien species cause on ecosystems, national production and human health. Similarly, Jamaica's NBSAP (2003) also contains important considerations about dealing with IAS and a very brief section on this topic (though it only identifies a handful of IAS). Jamaica's NBSAP puts the preparation of a national IAS plan among the highest priorities for country. The NBSAP for Trinidad and Tobago, prepared in 2006, does not have a section or any considerations on IAS. Similarly, the NBSAP for Saint Lucia (2000) does not include any consideration about IAS. Dominican Republic completed its NBSAP very recently (2011). As expected, since the preparation coincided with MTIASIC Project, the Dominican Republic's plan contains several considerations and a section on IAS. The National Coordinator of the MTIASIC Project in Dominican Republic fully participated in drafting the DR's NBSAP.

43. During the three decades prior to the submission and approval of the MTIASIC ProDoc by GEF, a total of around 67 successful eradications took place on 60 Caribbean islands, according to the "Database on Island Invasive Species Eradications"[15]. By all means, compared to other regions in the world, this is a disproportionately low number. It needs to be highlighted that these eradications were mostly implemented by cooperating agencies (bilateral or governmental agencies from other nations) and international NGOs with regular or intermittent presence in the Caribbean. Only in very few occasions, particularly in The Bahamas, local Caribbean agencies and NGOs seemed to have been involved at a leading position. Among the MTIASIC participant countries, as presented in the Table 3 below, only Bahamas and Saint Lucia had prior experience completing successful eradications with conservation purposes, all in very small islands (under 21 hectares). There were also a few IAS control projects, notably the control of invasive alien predators in the Hellshire Hills in Jamaica, aimed at conserving the Jamaican Iguana.

Table 3: Successful IAS eradications in Bahamas and Saint Lucia until 2012 (according to DIISE).

Country	Island Name	Size (Km2)	IAS	Completion Year	Status	Type
Bahamas	White (Sandy) Cay	0.2102	Raccoon	1997	Successful (non-reinvaded)	Unknown
Bahamas	White (Sandy) Cay	0.2102	Black Rat	1998	Successful (non-reinvaded)	Toxicant
Bahamas	White (Sandy) Cay	0.2102	House Mouse	1998	Successful (non-reinvaded)	Toxicant
Bahamas	Low Cay (1)	0.108	Black Rat	2000	Successful (non-reinvaded)	Toxicant
Bahamas	Low Cay (2)	0.1212	Black Rat	2000	Successful (non-reinvaded)	Toxicant
Bahamas	Allen Cay	0.069	House Mouse	2012	Successful (non-reinvaded)	Toxicant
Saint Lucia	Praslin	0.011	Common Opossum	1990	Successful (non-reinvaded)	Other
Saint Lucia	Praslin	0.011	Goat	1991	Successful (non-reinvaded)	Unknown
Saint Lucia	Praslin	0.011	Black Rat	1993	Successful (reinvaded)	Toxicant
Saint Lucia	Praslin	0.011	Small Indian Mongoose	1995	Successful (non-reinvaded)	Trapping
Saint Lucia	Praslin	0.011	Black Rat	2000	Successful (incursion)	Toxicant
Saint Lucia	Dennery	0.038	Brown / Norway Rat	2005	Successful (non-reinvaded)	Toxicant
Saint Lucia	Rat	0.014	Black Rat	2005	Successful (non-reinvaded)	Toxicant
Saint Lucia	Praslin	0.011	Black Rat	2011	Successful (non-reinvaded)	Unknown
Saint Lucia	Dennery	0.038	Domestic Sheep	2012	Successful (non-reinvaded)	Other
Saint Lucia	Dennery	0.038	Goat	2012	Successful (non-reinvaded)	Other

[15] By Island Conservation et al at: http://diise.islandconservation.org/

L.L.	As learned during early implementation of the MTIASIC Project, having a number of IAS eradication and/or management projects in a given country does not necessarily imply the existence of needed national capacities. Comprehending why IAS management and eradication are necessary (e.g., the linkages to endemic biodiversity conservation), when and which IAS to target, how to prioritize IAS and islands, when not to engage on eradication or control, and what types of plans and assessments are necessary before a country decides to attempt a control or eradication project requires far more than having 'ad-hoc' IAS projects over a long period. It is desirable that without risking the success of projects aimed at controlling or eradicating IAS, as much as technically and financially possible, every project of this type should become a hands-on capacity building opportunity for local practitioners and agencies.

44. In spite of the several dozen eradications and control projects that had taken place in the Caribbean at the time of the project launch, it is amply recognized the low national and regional capacity to deal with IAS both terrestrial and marine (MIS). The assessment of national capacities prepared by CABI for UNEP in 2006 indicated that "There is a need for fundamental capacity building at national / regional levels", a consideration that was also captured in the MTIASIC ProDoc. Furthermore, during consultations and trough questionnaires conducted by CABI, "the need for urgent capacity building was almost universally acknowledged" by those participating in the exercise. For the MtE, one fundamental consideration for the evaluation was that "The capacity to address the IAS issue in the region has been relatively low from political, financial, technical, and logistical perspectives".

45. Both in the PPG as well as in the ProDoc, the project preparation team had argued that the country composition of the project will bring in important benefits to the projects and the Caribbean: "The country selection is representative of the Caribbean: "the Lucayan Archipelago (The Bahamas); the Greater Antilles (Dominican Republic and Jamaica) and the Lesser Antilles (St. Lucia and Trinidad & Tobago). The Dominican Republic represents the second most populous Spanish-speaking Caribbean island, whereas the others are CARICOM countries and English-speaking. Excluding Trinidad and Tobago, with an oil-based economy, the rest of the participant countries have in common that their economies are highly dependent on sectors including tourism, fisheries, and agriculture – all vulnerable to invasive alien species. Four of the participating countries are located in the Caribbean biodiversity "hotspot" as defined by Conservation International[16]. While all pilot countries are Parties to the CBD and RAMSAR Convention, membership in other relevant bodies varies; for example, St. Lucia is the only OECS country. These different affiliations were selected to reach a critical mass that will maximize awareness raising and dissemination of results in a wider range of Caribbean countries and bodies"[17]. It could be added that participant countries represent 5 out of 12 independent nations in the insular Caribbean and comprise nearly 40% of its population (and 1 in 3 of the Spanish-speaking countries).

46. As highlighted in the ToR for this TE, the MtE indicated that "The participating countries do not in themselves represent the Caribbean region. If the Project Objective is to be met, then project participants need to acquire the vision and means to actively influence the entire Caribbean region". This statement allows for multiple interpretations. If literary correct, that the MTIASIC participant countries do not represent the Caribbean, then their capacity to disseminate lessons learned and to leverage best practices will be impaired.

47. It is convenient to indicate that during the country visits and interviews, questions about this issue were posed to well-known Caribbean technicians and leaders from NGOs, Government and multilateral agencies. Unanimously, there was a strong coincidence of opinions that, even if not perfect, the country composition of the project is highly representative of the Caribbean, culturally, ecologically and economically. The approach taken by this TE evaluation is to focus on examining the outputs and outcomes of the project and verifying whether the project is being able to disseminate lessons learned and best practices beyond the boundaries of the five participating nations. In other words, to verify if what is currently happening in the rest of the insular Caribbean countries and OTs has been influenced in any degree or leveraged by MTIASIC.

[16] http://www.biodiversityhotspots.org/xp/Hotspots/caribbean/Pages/default.aspx
[17] GEF.2007. Project Identification Form (PIF): Mitigating the Threat of Invasive Alien Species in the Insular Caribbean.

B. OBJECTIVES AND COMPONENTS

48. With the long term goal of conserving 'the globally important ecosystems, species and genetic diversity within the insular Caribbean', the MTIASIC's objective is to "mitigate the threat to local biodiversity and economy from IAS in the insular Caribbean, including terrestrial, freshwater, and marine ecosystems".

49. Given the pronounced low understanding of IAS management strategies and technologies among the participant countries as well as the very incipient capacity to deal with this problem, all outputs and outcomes of the project were geared toward creating capacity and increasing awareness: "in all the pilots there is a strong emphasis on capacity building among Government staff and other practitioners, as well as raising awareness of IAS issues among a wider stakeholder group including the general public".[18]

50. The project had five programmatic components with focus on national policy building and strategic planning, knowledge management and regional/south-south cooperation, and technical matters related to prevention, control and eventual eradication of 'invasive alien species' (IAS). The complete original Logframe of the project is found in ANNEX F. It needs to be taken into consideration that several of the pilot projects have gone through major changes and an updated logframe was prepared and adopted.

51. Component 1 is important because it will provide key outputs and early outcomes for the countries to start acting immediately (a strategic plan and national policy, and a national working IAS group). Equally or even more important, if achieved fully, outcomes from Component 1 will provide the political and financial sustainability needed for managing IAS and mitigating their impacts.

[18] MTIASIC ProDoc, page 2.

Table 4: Components, Outcomes and Outputs of MTIASIC (According to 'Initial Logframe')

COMPONENTS / Outcomes	OUTPUTS (Nominal, according to ProDoc)
1. Development of National IAS Strategies **Outcome:** Increased national capacity to address potential risks posed to biodiversity of global significance from invasive alien species	1.1. National IAS working group established in each country
	1.2. National IAS Strategy (NISS) produced for each country (full NISS completed, IAS data contributed to Compendium, new legislation)
2. Establishment of Caribbean Wide Cooperation and Strategy **Outcome:** Increased regional cooperation to reduce risk posed to biodiversity of global significance from invasive alien species	2.1. National and regional coordination mechanisms for a regional cooperation framework
	2.2. Draft region- wide invasive species strategies
3. Knowledge generation, management and dissemination **Outcome:** Access to data and best practice established, and public awareness of IAS strengthened	3.1. Data, information and best practice on IAS management collated.
	3.2. Pilot findings, existing and externally funded IAS- related research at national and regional levels documented.
	3.3. Electronic networking systems, including linkages to GISP, GISIN and IABIN established.
	3.4. Public communication media & measures developed.
4. Prevention of new IAS introductions in terrestrial, freshwater and marine systems **Outcome:** Increased capacity to strengthen prevention of new IAS introductions	4.1. National capacity to prevent biological invasions strengthened (Trinidad & Tobago, Saint Lucia).
5. Early detection, rapid response and control of IAS impacts **Outcome:** Increased capacity to detect, respond, control and manage IAS impacting globally significant biodiversity	5.1. Incipient invasion of marine IAS detected and prevented (Trinidad & Tobago).
	5.2. Populations of invasive animals and plants (Dominican Republic, Jamaica, Saint Lucia) eradicated.
	5.3. Marine IAS controlled and managed (Bahamas, Jamaica, Trinidad & Tobago).
	5.4. Protection measures for sites of high conservation value (Jamaica, Trinidad & Tobago).

52. Component 2 (see Table 4) has put major attention to fomenting regional cooperation as a mean to: 1) increase both national and regional capacity and 2) prevent the spread of IAS across the Caribbean islands. Outcomes from this component are pivotal for the Caribbean to move forward in mitigating IAS to biodiversity, economy and human health. As it will be assessed in the next chapter, project assumptions are proven correct and this Component is yielding its intended results.

C. CHANGES IN DESIGN DURING IMPLEMENTATION

53. As it should be anticipated for any multiyear project like MTIASIC (4 years) that goes through a relatively long planning phase (3 years), several changes have been made to activities and pilot projects in this full size, regional initiative. Some changes started to occur just a few months after project initiation but many others took place after the MtE. Changes to the project were due to several factors:

i. Changes in country's development priorities, land tenure and legal issues;
ii. New, up-to-date taxonomic information about potential or perceived IAS;
iii. Increased understanding and comprehension, thanks precisely to the MTIASIC project, of the technical and financial implications of some of the proposed eradications;
iv. Budgetary and time constrains.

The first two change causalities are external to MTIASIC. The fourth causality was surely due to lack of sufficient expertise on eradication and control of IAS, both terrestrial and marine, at the time of project preparation. Increased capacity (third causality) is a positive result of the project itself and the changes should be mostly seen as positive, adaptive management measures that move the project closer to its objective and goal (even if an IAS project was cancelled, as it will be discussed further in next sections).

54. The MtE paid significant attention to the pilot projects indicating that "it appears that the pilot projects were not selected based on a set of 'best practice' criteria carefully defined for the project context (budget, information base, technical capacity, and logistics); and either there was inadequate technical advice provided during the project planning phase or the technical advice was not well incorporated in some cases". The MtE went further saying that 'Most of the challenges faced by the pilot projects should have been readily apparent to individuals with substantial expertise in IAS field work, particularly those used to working in remote areas in the developing world'. While understanding that pilot projects were selected during the participatory process of the PPG phase, this TE has to concur with those statements. This situation could have been prevented during the PPG phase with a broader participation in project preparation of highly trained technicians and specialized NGO, which does not seem to have been the case (as will be discussed later in the 'Project Partners' section). Fortunately, the combination of fast learning through project implementation, adaptive management (particularly after the MtE) as well as the willingness to learn and hard work of the regional and national executing agencies allowed to overcome many of the major limitations with which the project started (budgetary, time, capacity).

55. As a result of the MtE, the IPSC decided to evaluate the use of the term 'eradication' vis-a-vis the activities originally proposed for the MTIASIC Project and the real capacity of the EAs to conduct eradication projects. During the 2012 ISPC meeting in Cuba, it was decided to change the focus and descriptive wording in the project documents to focus on IAS Control and Management instead of eradication. Dominican Republic requested that its projects maintained the focus on eradication, something that was supported by the wider ISPC.

56. The pilot project in Output 5.1 related to Caulerpa taxifolia in the coasts of Trinidad and Tobago had as an initial activity to test whether Caulerpa taxifolia found in Trinidad and Tobago was of the invasive strain. If confirmed, the project called for the eradication of the algae where present. Before proposing to eradicate the algae, the project should have requested a feasibility assessment to determine whether it was possible to eradicate the algae. The feasibility assessment should have included detailed mapping of the algae occurrences, existing in-country capacities, additional capacities that needed to be acquired, approximate costs, partners and, very important, biosecurity considerations and assessment of potential re-invasion, among other topics. Then, if deem feasible, a detailed operational plan should have followed. Only after having a peer-reviewed, solid operational plan, eradication can be undertaken. Otherwise, any eradication attempt will almost surely fail. Caulerpa eradication has been achieved in Southern California, at extremely high costs and after very complex logistical operations[19]: for a total Caulerpa area of less than 2 hectares, the eradication cost reached around US$7.7 million. Given existing local capacities and the financial and time constrains of the MTIASIC, it was not realistic to have the eradication of Caulerpa as an objective for this pilot. Fortunately, the local Caulerpa strain in Trinidad and Tobago was reported to be of the non-invasive type and the proposed Pilot Project did not need to continue. It was cancelled before the end of the first year of project. It was agreed that the resources originally assigned to this pilot would be reallocated to a new pilot project related to enhancing national capacity to prevent biological invasion in fresh water and marine ecosystems in Trinidad and Tobago. The new pilot falls under Output 4.1.

[19] Merkel & Associates. 2006. Final report on eradication of the invasive sea weed *Caulerpa taxifolia* from the Agua Hedionda Lagoon and Huntington Harbor, California. San Diego, USA.

57. Under Output 5.2 (Populations of invasive animals and plants eradicated), Dominican Republic's pilot project for Alto Velo Island was discontinued during the third year of project (5th IPSC Meeting in Santo Domingo, November 2012). While the project had advanced in collecting baseline data on endemic biodiversity to be protected and a field visit was conducted, it was clear to the NC and PD, as well as to the rest of IPSC members, that funds were not sufficient to undertake any eradication. A product not initially considered in the Pilot plan, Alto Velo now counts with a good feasibility assessment prepared by Island Conservation[20]. This plan will help decide whether or not to continue toward eradication. If the decision is to eradicate, then an eradication operational plan should follow. The pilot project initially suggested activities that are not necessary for the eradication to take place but would have burnt resources and time (e.g., estimating the population size of invasive rats). At the same time, the pilot project plan did not require very important inputs such as a risk assessment for non-target species (e.g., what other species may be affected by toxicants, trapping or 'elimination' techniques during eradication? how severe would the impact be in terms of local and global population? For how long the impact is expected to last?). It could be argued that this project needed to be discontinued much earlier as to liberate resources for Cabritos Island. Still, it would have been highly probable that even if funds from Alto Velo were reallocated very early to Cabritos, they would have not been enough for a complete eradication of IAS in that island.

L.L.	Project planning must take advantage of all resources. It is very important to build upon the experience of international groups and governmental agencies whose main work is managing IAS. At least four countries in the Wider Caribbean Region (WCR) have extensive experience on IAS eradication and management: USA, Mexico, UK and France. New Zealand also has implemented eradication and IAS management projects in the Caribbean, and is a leading country in this field.
R.	For an IAS project to be approved, it has to use widely recognized standards for planning activities for eradication and management of IAS. For eradication planning, it is highly recommended a sequence of: feasibility assessment, operational plan and post-operation plan. Monitoring eradication success (target IAS) and restoration of ecosystems and threatened species population (conservation target) is highly recommended. Consider following the methodology presented by the Pacific Invasives Initiative: http://rce.pacificinvasivesinitiative.org/ . Plans must be peer review by recognized experts.

58. Under Output 5.2, the Jamaican Iguana pilot project considered the potential eradication of several of the IAS present on the Goat islands: Dog (*Canis familiaris*), Goat (*Capra hircus*), Cat (*Felis catus*), Small Indian Mongoose (*Herpestes javanicus*), and Feral Pigs (*Sus scrofa*). As in the two previous cases, the pilot plan presented in Appendix 18 of the MTIASIC ProDoc does not conform an eradication plan neither it is proposing the preparation of the necessary planning documents. Furthermore, it did not seem to have taken advantage of a preliminary restoration plan for the Goat Islands presented by Island Conservation to the Jamaica's Urban Development Corporation (UDC) in 2008[21]. This pilot project was modified to exclude all activities on the Goat Islands (original focus area) and instead increase control of invasive alien predators in the Hellshire Hills, where the only known breeding population of the Jamaican Iguana exists. The decision to modify the Pilot was based on the legal limitations for the project implementation imposed by the islands' owner (they belong to UDC). It is also well-known that the Government of Jamaica is entering into business deals with 'China Harbour Engineering Company (CHEC)' for the development of a transshipment facility in the Portland Bight Bay, probably on these islands. According to project partners and reviewers, based on the request of the Jamaican delegation, the decision to exclude the Goat Islands was made during the January 2012 meeting of the IPSC and was informed to the Jamaica's NSC on February 16, 2012. A feasibility assessment for managing IAS in the Goat Islands would have included a land ownership assessment and a list of legal requirements for any IAS activity to take place there (therefore saving time and resources).

59. Saint Lucia's pilot project about the protection of the Saint Lucia Iguana through eradication of the invasive alien iguana (Output 5.2) also went through important modifications. Given the low removal rate of the alien Green Iguana (*Iguana iguana*) as well as the high costs associated with the work done, it was decided that the pilot project should focus on testing different methods for field detection of the alien iguana. This change is adequate and it

[20] See in references: Island Conservation (2011).

[21] Island Conservation. 2008. Restoring the Goats Islands for Reintroduction of Jamaican Iguanas: Goat, Cat and Mongoose Eradication Plan. Prepared for Urban Development Corporation (UDC), Jamaica Iguana Recovery Group and University of West Indies-Mona. Santa Cruz, California, 37 pp.

should have been among the main objectives of the pilot project since the beginning. This TE should indicate that a main problem found with this pilot project is that, without having gone through the necessary planning steps, it went directly to try eradicating the iguana using an expensive, dangerous and predetermined eradication method (live capture, snaring and subsequent euthanizing). An eradication plan must assess in detail all potential eradication techniques and then select the one that has proven to be the most effective and cost-efficient or at least seems to be so, based on strong documented evidences. The assessment must include use of specialized fire arms (type, caliber, ammunition types, use protocols, etc.). It should also need to take into consideration the national legislation as well as the values and practices of the local people (it is important not to import values and perspectives from other countries especially if these may interfere significantly with the objectives of the project). For this pilot project, there was no feasibility or eradication plan and several lethal methods were not assessed. During an interview with the NC in Saint Lucia, it was indicated that live capture was preferred in order to avoid issues related to animal welfare. In an interview with Matthew Morton, from Durrell Wildlife Conservation Trust in Saint Lucia, he indicated that the major concern about the use of fire arms to hunt the alien iguanas would be personal safety of local residents. The Database on Invasive Island Species Eradications (DIISE) does not report a single experience worldwide of iguana eradication. This pilot project should have focused since the beginning on developing the necessary information and plans for a potential eradication or control project.

60. A very important aspect in this pilot project is the personal safety of project staffers or contractors. Several pictures taken of local people who worked for the project show them very high on slim trees, sometimes 'soft wood' trees like Cecropia sp, without any proper safety equipment or safety measure. While this is a TE and there is no opportunity for introducing any corrections into field work practices, it is important to state that personal safety of all project workers and contractor, especially if local stakeholders, is crucial .

L.L.	Lack of detailed feasibility eradication assessments or plans that assess all possible eradication methodologies and the direct adoption of 'pre-identified' eradication methodologies may lead to ineffectiveness and delays in bringing under management/eradication the target IAS. Animal welfare is a complex ethical issue which is based on societal values and interests.
R.	Before approving an IAS project and committing to fund eradication or control activities, the project documents should contain (at least as an annex) a thorough assessment of all available eradication methodologies, taking into consideration national laws and local practices. Selected methodologies must be those that are most effective and cost-efficient, and are accepted by stakeholders and authorities. Project documents must also indicate if Governmental agencies need to introduce new regulations or modify existing regulations for the eradication/control to take place effectively. Project documents must be realistic about what can work and what will not work. Approval should be postpone until all necessary conditions have been met.

L.L.	It is paramount to maximize the personal safety of all staffers and stakeholders participating in the implementation of UNEP and GEF projects (any project actually). The death of a local collaborator, itself a tragedy, may also result in the cancellation of the project or the origin of bitter adverse reactions locally, especially if the use of safety equipment and proper training could have prevented that loss.
R.	Project budgets must include necessary personal safety equipment and corresponding training. Training field crew on the use of safety equipment is strictly necessary and using the equipment must be mandatory.

61. Jamaica's Lower Black River Morass (Output 5.3, on Marine IAS), was rightly modified to exclude eradication or control activities of two aquatic invasive alien animals: *Cherax quadricariuatus* (Australian Red Crayfish) and *Pterygoplichthys paradalis* (Sucker-mouth Catfish). While initially considered for control activities, together with the two invasive plants Ginger (*Alpinia allughas*) and Paper Bark Tree (*Melaleuca quinquenervia*), the decision to 'formally' exclude them from the pilot project was the realization that no activity on them, beyond education and outreach, had occurred. In any case, the initial objective to eradicate these two animal alien species from the morass

would have been almost impossible to achieve because of a long list of reasons[22]. This is a positive decision in that it is a 'reality check' of what can be accomplished in the project given the extent of the invasion, the biology of the invasive species and existing budget, time and local capacity. It needs to be highlighted that the strength of the project team was on the side of plant ecology and invasive plants but not on invasive invertebrates. Again, it has to be emphasized that a previous feasibility assessment would have identified those issues therefore saving time, money and not creating expectations beyond the capacities of the project.

62. Trinidad and Tobago's Pilot Project in Nariva Swamp also went through changes (Output 5.4). Initially, the project contemplated the eradication of the invasive species Red Palm Mite and Coconut Moth, and the development early during implementation of a native palms nursery where seedlings would be produced and grown for later transplanting. During the curse of the work it was determined that the Coconut Moth was a different species than originally identified and not an invasive one. Activities related to the Moth were discontinued. Importantly, considering all existing technologies at global scale, the project team realized that eradicating the Red Palm Mite would be impossible. Following recommendations from the MtE, the Regional Executing Agency started to do research on potential biocontrol for the Mite. A last important change introduced to the pilot project was eliminating the development of a native palm nursery and the restoration activities by replanting palm seedlings in a section of the swamp. This valuation considers appropriate this last change: development of the nursery would have started late in the project, without sufficient financial resources, insufficient well trained personnel, and the biocontrol would have not been developed yet.

63. A few of the changes introduced to the project are not explained adequately in the 'Project Implementation Reports' (PIRs) or the minutes of IPSC meetings. Some are not even mentioned and are only noticed by comparing the initial logframe with the final logframe (Feb 2013) or because some products or activities are never mentioned in the reports and documents. Furthermore, a few contradictions were found for some activities when comparing different documents for the same period. For instance, the IPSC Meeting Minutes from 01/24/2012 indicated (page 2) that "In view of concurrence that the term 'eradication' was inappropriate at the pilot site level indicator in the Results Framework, it was agreed that this term be replaced with "control and management" – as consistent with the overall Outcome 5 indicator and GEF 5 results framework. However, these minutes do not indicate that Goat Island (Jamaica) was totally excluded from the project, as presented by Jamaica's NC according to the meeting minutes of the Jamaican NSC from 02/16/2014 (page 1): "major decisions coming out of the International Project Steering Committee Meeting held in Cuba in January 2012 inclusive of the removal of the eradication/containment components of all pilot project's with the exception of the Dominican Republic (Goat Islands Component removed from the Iguana Pilot)".

L.L.	It is not uncommon that projects need to go through important changes at mid-term. Those changes and their causal factors bring in important lessons to be learned. But these lessons would not be collated and disseminated if they are not documented, discussed and reported adequately. In addition, lacking adequate documentation of changes introduced to the project or finding contradictions between documents when explaining those changes make learning and evaluation more difficult. Changes to projects should be documented using 'Project Implementation Reports', project steering committee minutes or standalone documents that should be concise but complete. All project documents, including those from the NEAs and the NSCs, should share the same information. Also, the project logframe should be updated as needed and changes documented.

64. A new Project Logframe was prepared by the Regional Implementing Agency and the Executing Agency during year 3 of the project. This New Logframe is presented in Annex H. A summary of the Logframe indicating Outcomes, Outputs and pilot projects follows below in Table 5. Nominally, according to the project's Logframe, there are 13 Outputs. However, some of the Outputs have multiple products that have been explicitly identified in the same Logframe, with implications toward reaching outcomes. Therefore, all these products become de-facto 'Outputs' too. All Outputs will be evaluated individually in the 'Evaluation Findings' chapter. From this point on, this evaluation will follow the new logframe.

[22] For the Crayfish, see: Hanfling et al (2011) in the references annex. Also, check the Database on Island Invasive Species Eradications (DIISE): http://diise.islandconservation.org/

Table 5: **Final Pilot Projects, Outputs, Outcomes and Components**

COMPONENTS / Outcomes	OUTPUTS (Nominal, according to ProDoc)	OUTPUTS (detailed)
1. Development of National IAS Strategies **Outcome:** Increased national capacity to address potential risks posed to biodiversity of global significance from invasive alien species	1.1. National IAS working group established in each country	1.1.1.- Bahamas
		1.1.2.- Dominican Republic
		1.1.3.- Jamaica
		1.1.4.- Saint Lucia
		1.1.5.- Trinidad and Tobago
	1.2. National IAS Strategy (NISS) produced for each country	1.2.1.- Bahamas
		1.2.2.- Dominican Republic
		1.2.3.- Jamaica
		1.2.4.- Saint Lucia
		1.2.5.- Trinidad and Tobago
2. Establishment of Caribbean Wide Cooperation and Strategy **Outcome:** Increased regional cooperation to reduce risk posed to biodiversity of global significance from invasive alien species	2.1. National and regional coordination mechanisms for a regional cooperation framework	2.1. National and regional coordination mechanisms for regional cooperation in place and functioning
	2.2. Draft region- wide invasive species strategies	2.2. Caribbean Invasive Species Strategy completed and published.
3. Knowledge generation, management and dissemination **Outcome:** Access to data and best practice established, and public awareness of IAS strengthened	3.1. Data, information and best practice on IAS management collated.	3.1.1.- Bahamas CSA
		3.1.2.- Dominican Republic CSA
		3.1.3.- Jamaica CSA
		3.1.4.- Saint Lucia CSA
		3.1.5.- Trinidad and Tobago CSA
	3.2. Pilot findings, existing and externally funded IAS- related research at national and regional levels documented.	3.2.1.- Lionfish Regional Strategy completed and disseminated
		3.2.2.- Key findings & lessons learnt disseminated to stakeholders
	3.3. Electronic networking systems, including linkages to GISP, GISIN and IABIN established.	3.3. Electronic networking systems, including linkages to GISP, GISIN and IABIN established.
	3.4. Public communication media & measures developed.	3.4. Public communication media & measures developed (video, App)
4. Prevention of new IAS introductions in terrestrial, freshwater and marine systems **Outcome:** Increased capacity to strengthen prevention of new IAS introductions	4.1. National capacity to prevent biological invasions strengthened (Trinidad & Tobago, Saint Lucia).	**4.1.1.- Pilot Project Saint Lucia:** "Protecting Saint Lucia's Biodiversity from Invasive Alien Species in the Maria Islands Nature Reserve".
		4.1.2.- Pilot Project Trinidad and Tobago 1: Increased ability of stakeholders to detect and report occurrences of Frosty Pod Rot (FPR) for all cocoa growing areas of T and T (6,900ha)
		• **4.1.3.- Pilot Project Trinidad and Tobago 2:** Enhanced national capacity to prevent biological invasion in fresh water and marine ecosystems in Trinidad and Tobago.

5. Early detection, rapid response and control of IAS impacts **Outcome:** Increased capacity to detect, respond, control and manage IAS impacting globally significant biodiversity	5.1. Populations of invasive animals and plants (Dominican Republic and Jamaica) under control and management	**5.1.1.- Pilot Project Dominican Republic:** Eradication of alien vertebrate predators and herbivores from Isla Cabritos in Lago Enriquillo.
		5.1.2.- Pilot Project Jamaica: Monitoring and Control of Vertebrate Predators in the last remaining habitat of the Jamaican Iguana (*Cyclura collie*) in the Portland Bight Protected Area.
	5.2. Populations of invasive animals and plants (Saint Lucia) under control and management	**5.2.1. - Pilot Project Saint Lucia**: "Protection of Saint Lucia's Unique Biodiversity through comparison of cost-effectiveness of different control methods of Invasive Alien Iguanas".
	5.3. Marine IAS controlled and managed (Bahamas, Jamaica, Trinidad & Tobago)	**5.3.1.- Pilot Project Bahamas:** A Local and Regional Research, Training and Management Approach to the Lionfish Invasion in The Bahamas.
		5.3.2.- Pilot Project Jamaica: Management & Control of the Marine Invasive Species, *Pterois volitans* (Lionfish) to prevent the impending population explosion in the Caribbean Sea
		5.3.3.- Pilot Project Trinidad and Tobago: Asian Green Mussel (Perna viridis): Effective method for control & management identified & tested. Economic impact of green mussel determined. Improvement in community structure associated with green mussel at pilot sites.
	5.4. Protection measures for sites of high conservation value (Jamaica, Trinidad & Tobago)	**5.4.1.- Pilot Project Jamaica:** Control and Management of invasive plants in the Lower Black River Morass (RAMSAR Site) to prevent the further habitat loss.
		5.4.2.- Pilot Project Trinidad and Tobago: The Maintenance of the Native Biodiversity of the ESA – Nariva Swamp by managing IAS threats.

D. TARGET AREAS[23] AND GROUPS

65. Target Areas and Groups vary according to component, country and pilot project type. Clearly, 'Pilot Projects' have well defined areas or sites while components related to strategic planning and national policies work at country level.

66. For Component 1, since the Outputs and Outcomes are political in nature, the Target Groups included all relevant ministries and high level agencies of the national and sub-national governments with inherence in or that relate to IAS, such as Environment and Natural Resources Ministries, Natural Resources agencies, Transportation Ministries, Tourism Ministries, Agriculture and Food Production Ministries, Health Ministries, Airport and Sea Port authorities, Custom Services, among others. While names will vary from country to country, given the different governmental structures and systems, all participant countries have governmental agencies performing those functions. Interventions in this component should also target the Academia, since they can contribute their expertise and knowledge to the NISS preparation and implementation. Similarly, a target group should be the NGO community since they can contribute their experience across sites and ecosystems in each country and regionally, therefore helping to ground national policies and regulation. Importantly, an effort should be made to target community leaders and to give them the opportunity to be the voice of the local communities during high level negotiations.

67. In Component 2, with two outputs and corresponding outcomes, Target Groups are more widely distributed geographically and thematically. On one side, there is a project related outcome for the creation of the 'International Project Steering Committee' (IPSC). The IPSC will also help create region-wide linkages among governments. The second Outcome is the preparation of a regional IAS strategy, originally conceived as an update to the 2005 CRISIS Document but now called the 'CIAS-Strategy'[24]. The preparation of this regional strategy required engaging

[23] Target Areas is used in the context of the MTIASIC ProDoc and the GEF Tracking Tool: geographic target areas.
[24] CABI et al.2011. Strategy and Action Plan for Invasive Alien Species in the Caribbean Region 2011-2016. An Output of the project 'Mitigating the Impact of IAS in the Insular Caribbean. UNEP and CABI. Curepe, Trinidad and Tobago. 54 pp.

specialists on terrestrial, aquatic and marine invasive species from across the region and from multiple sectors (Governments, NGOs and academia).

68. Similar to the previous component, the third component of the project required bringing on board a wide array of interest groups that are not only seeking information provided by others but are willing to systematize their own experience and share it through electronic networking systems (in this case both CIASNET and Carib_IAS_Threat). The preparation of IAS 'Critical Situational Analysis' (CSA) by the five participant countries is part of this component and the objective is to share them through CIASNET.

69. Components 4 and 5 include twelve pilot projects and are intended to increase 'capacity to strengthen prevention of new IAS introductions' as well as increasing 'capacity to detect, respond, control and manage IAS impacting globally significant biodiversity', respectively. Each pilot project has specific geographic locations and target groups:

Component 4, Outcome 1, Saint Lucia Pilot Project: "Protecting Saint Lucia's Biodiversity from Invasive Alien Species in the Maria Islands Nature Reserve": Prioritized by stakeholders during the PPG because of its endemic species and bird nesting populations, Maria Major is the only known home for the Saint Lucia Racer (CR), consequently a 'single island endemic'. The two Maria Islands are home to the threatened Saint Lucia Whiptail (probably also CR if assessed using IUCN Red List criteria). Maria Major Island has more endemic species than 2/3 of all Eastern Caribbean States![25] The most important Target Groups are the Saint Lucia National Trust (SLNT), the Forestry Department of the Ministry of Sustainable Development, Energy, Science and Technology, the local community of fisherfolks, Durrell Wildlife Conservation Trust, local restaurants and hoteliers (The Reef, Coconut Bay, Island Breeze), and diving agencies across Saint Lucia.

Component 4, Outcome 1, Trinidad and Tobago Pilot Project 1: "Prevention of Frosty Rot Pod (FRP) Invasion from mainland South America": by increasing ability of stakeholders to detect and report occurrences of Frosty Pod Rot and having a response plan. The project will cover nearly 6,900 hectares across Trinidad and Tobago. Main Target Groups are: the Ministry of Food Production, Cocoa Research Unit of University of West Indies (UWI), Cocoa and Coffee Industry Board, producers.

Component 4, Outcome 1, Trinidad and Tobago Pilot Project 2: "Enhanced national capacity to prevent biological invasion in fresh water and marine ecosystems in Trinidad and Tobago". This project is jointly implemented by the Ministry of Food Production and the Institute of Marine Affairs. It targets several groups including local communities and stakeholders. The MtE recommended not to initiate this pilot project and instead use the funds to consolidate other ongoing activities within MTIASIC.

Component 5, Outcome 1, Dominican Republic Pilot Project: "Eradication of alien vertebrate predators and herbivores from Isla Cabritos in Lago Enriquillo NP". Cabritos Island (2,400 hectares) is an island in Lago Enriquillo NP, in the South West region of the country. It is home to breeding populations of the critically endangered (CR) Ricord's Iguana (Cyclura ricordi) and the Vulnerable (VU) Rhinocerus Iguana (Cyclura cornuda), in addition to other globally important species. Cabritos has been invaded by goats, donkeys, cats and rats, all of which threatened the long term survival of these species. The most important Target Groups for work in this island are the Protected Areas and the Biodiversity and Wildlife Directorates from the Environment and Natural Resources Ministry, the National Museum of Natural History, the Hispaniola Ornithological Society, local farmer/peasant communities, and Island Conservation, an international NGO specialized on IAS eradication from islands.

Component 5, Outcome 1, Jamaica Pilot Project: "Monitoring and Control of Vertebrate Predators in the last remaining habitat of the Jamaican Iguana (Cyclura collie) in the Portland Bight Protected Area". The Jamaican Iguana (Cyclura collei) was thought extinct by 1948 until its rediscovery in 1990. Since then, sustained efforts have been carried out to control introduced alien predators in the Hellshire Hills, within the Portland Bight Protected Area, where a small population of nearly 30 reproductive females inhabited. As noted above, this pilot project went through important changes.

[25] See Gardner, Lloyd (2009) in references

Component 5, Outcome 2, Pilot Project Saint Lucia: "Protection of Saint Lucia's Unique Biodiversity through comparison of cost-effectiveness of different control methods of Invasive Alien Iguanas". *Iguana iguana* is an aggressive iguana species from Northern South America and Central America and was discovered in the Soufriere area of Southern Saint Lucia in 2000; breeding of the species in Saint Lucia was confirmed in 2008. Fears that Green Iguana could displace by competition or even hybridize with the single-island endemic and uncommon Saint Lucia Iguana seem solid given the invasion capacity that Green Iguana has demonstrated where it has invaded. Target Groups for this project are the Ministry of Sustainable Development, Energy, Science and Technology, Durrell Wildlife Conservation Trust, Flora and Fauna International, Soufriere Regional Development Foundation (SRDF) and the Soufriere local community.

Component 5, Outcome 3, Pilot Project Bahamas: "A Local and Regional Research, Training and Management Approach to the Lionfish Invasion in The Bahamas". Lionfish was first reported in Bahamas in 2004 but it was not until 2006 that its occurrence was 'officially' recognized. Its potential impact on fisheries and marine biodiversity has been documented to be very high. The Target Groups and also partners for this Pilot Project are: Department of Marine Resources, recreational dive operators (i.e. Bahama Divers and Stuart's Cove Dive Bahamas), College of the Bahamas- Marine and Environmental Studies Institute, Bahamas National Trust (BNT), Cape Eleuthera Institute – Eleuthera, and the Bahamas Reef Environmental Education Foundation (BREEF).

Component 5, Outcome 3, Pilot Project Jamaica: "Management & Control of the Marine Invasive Species, Pterois volitans (Lionfish) to prevent the impending population explosion in the Caribbean Sea". Lionfish was positively identified in Jamaica in 2008 and so far they have been spotted in 4 parishes around the island, particularly along the north coast. Site monitoring teams will be created that will carry out quarterly assessments of these sites to determine the presence and impact of the lionfish. Target Groups and also partners to this pilot project are UWI's Mona Campus, University Sub-Aqua Club & Jamaica Sub Aqua Club (USAC-JSAC), Fisheries Division, Centre for Marine Sciences (UWI), and local fisherfolks.

Component 5, Outcome 3, Pilot Project Trinidad and Tobago: "Asian Green Mussel (*Perna viridis*): Effective method for control & management identified & tested. Economic impact of green mussel determined. Improvement in biotic community structure associated with green mussel at pilot sites". First recorded in Trinidad in 1990, this MIS has already reached the coasts of Florida. This project will identify methods to control the species and will assess changes to the biotic community where the species is present. Led by the Marine Affairs Institute (MAI), the main Target Groups for this pilot project are Faculty of Food and Agriculture (UWI), industrial firms with sea water cooling systems, and other marine stakeholders including local communities who now consume this species.

Component 5, Outcome 4, Pilot Project Jamaica: "Control and Management of two invasive freshwater animals and plants in the Lower Black River Morass (RAMSAR Site) to prevent the further habitat loss". The Black River morass is the largest freshwater wetland ecosystem in Jamaica and the Caribbean. It has been invaded by a swift of alien species Cherax quadricariuatus (Australian Red Crayfish), Pterygoplichthys paradalis (Sucker-mouth Catfish), Alpinia allughas (Ginger) and Melaleuca quinquenervia (Paper Bark Tree/ Melaleuca). Implemented jointly by NEPA and the Mona Campus of UWI, the Target Groups include several local communities, schools, pet traders, the Customs Department, among others.

Component 5, Outcome 4, Pilot Project Trinidad and Tobago: "The Maintenance of the Native Biodiversity of the ESA – Nariva Swamp by the Production and Transplanting of IAS-Free Palm Seedlings". This project was intended to mitigate the threat of Red Palm Mite and Coconut Moth on native palm species in the Nariva Swamp and, in cascaded consequences, contribute to the conservation of the Psiitacidae community in this natural protected area. Implemented by the Forestry Department of the Ministry of Agriculture, Land and Marine Resources (MALMR), the main Target Groups are the communities of Plum Mitan, Kernahan, Cocal and Biche, as well as the scientific sector including UWI, IMA, Environmental Management Authority (EMA) and other departments of the MALMR itself. Other stakeholders are farmers, wholesalers, researchers, foresters, lumberyards, and wildlife organizations.

E. MILESTONE AND KEY DATES IN PROJECT DESIGN AND IMPLEMENTATION

70. The MTIASIC ProDoc includes a work plan and timetable section (Appendix 5) and a Deliverables and Benchmarks Table (Appendix 6). After the MtE, upon producing the updated logframe, an updated timetable was also produced. This section of the TE follows this information and also includes the planning phase of the project.

71. Milestone and benchmarks during project design phase were:

- 2006, July, PDF-A approval
- 2007, January, Completion of PDF-A activities
- 2007, December, Final re-submission of PPG/PIF (it was submitted twice previously)
- 2008, February, PPG Approval
- 2008, April, Initiation of activities under the PPG
- 2009, June, GEF CEO endorsement
- 2009, September 14th, UNEP's approval
- 2009, September 23rd, Project start day.

72. Chronology of major Milestones for the overall project:

- 2009, September 23rd, Project start day;
- 2009, October, Project's Inception Workshop, held in Jamaica
- 2009, October 29, 1st IPSC meeting, in Jamaica
- 2009 Q4: Contracts between UNEP and the Regional Executing Agency (CABI), and between CABI and the NEAs (all achieved with the exception of the agreement with Trinidad and Tobago who signed a few months later while waiting for Parliamentary approval for the Minister to sign);
- 2010 Q1 and Q2: All NSCs in place
- 2010, June, training event "Measurement of Economic Impact of IAS in the Caribbean"
- 2010, June, initiation of the Caribbean Invasive Alien Species Strategy (CIAS-Strategy) with the formation of three thematic groups (fresh water, marine, terrestrial)
- 2010, October, CIASNET.org is launched
- 2010, October, training workshop on "Use of IABIN I3N database to make management decision in the control of IAS in the Caribbean"
- 2011, March, training workshop on "Use of Legal Tools in the Management of IAS"
- 2011, July, completion of the Caribbean Invasive Alien Species Strategy;
- 2011, September, Mid-term Evaluation starts (originally planned to star August 1, 2014)
- 2011, December, Mid-term evaluation report is presented
- 2012, January 24 and 25, IPSC meeting in Cuba, major changes to pilot projects agreed
- 2012, February, presentation of the CIAS-Strategy to the CBD's sponsored 'Forum of Ministers of the Environment' meeting in Ecuador
- 2012, August, Caribbean regional release of the booklet 'Stop the Invasion of Alien Species'
- 2012, August, re-launch of CIASNET.org (as per recommendations from the MtE).
- 2012, September, Social Marketing Training.
- 2012, November 24th, 4th IPSC meeting
- 2013, March, training workshop on "Economic Analyses of Invasive Species in the Caribbean"
- 2013, May, training workshop on "Aquatic Invasive Species Risk Assessment Tool"
- 2013, June 11, 5th IPSC Meeting
- 2013, July, phytosanitary emergency in Dominican Republic as per detection of the IAS Pine Weevil (*Pissodes castaneus*)
- 2013, September 10th, 6th IPSC meeting
- 2014, March, Terminal MTIASIC Project workshop "Policies, Strategies and Best Practices for Managing Invasive Alien Species (IAS) in the Insular Caribbean", Port of Spain, Trinidad
- 2014, March, Terminal Evaluation starts.
- 2014, April 3rd, 7th IPSC meeting.
- 2014, April 30th, Project Completion

- 2014, June 30th, Project financial closure (planned).

L.L.	In some countries, the Highest Executive authorities may need parliamentary approval if they are to sign any type of agreement, like it happened with MTIASIC in Trinidad and Tobago. By nature of Parliaments, such approval may take months to be delivered and there will be a significant delay in project initiation.

R.	For the signing of the country agreements for initiating GEF-funded projects, EAs might want to consider having the highest possible authority from the executive that 'does not require' parliamentary or congressional approval in order to expedite project initiation.

73. This section only collates the major milestones and dates for the project at the regional level (with the only exception of the Dominican Republic emergency with the Pine Weevil, since this is a strong reminder why dealing with IAS in the Caribbean requires a regional approach). Collating only regional milestones is definitively unfair to the great accomplishments that the project has had at the country level. It would have taken many more pages in order to provide a completed list of major milestones and dates at country level.

F. IMPLEMENTATION ARRANGEMENT

74. Institutional implementation arrangements for this project follow standards found in other regional projects funded by GEF and implemented by UNEP. Two examples of similar implementation arrangements are:

    - Edwards, Phillips. 2012. Terminal Evaluation of project GF/2328-2712-4627 and 4630: Development of a Wetland Site and Flyway Network for Conservation of the Siberian Crane and Other Migratory Waterbirds in Asia. Prepared for UNEP Evaluation Office. Nairobi, Kenya. 212pp.
    - Kiff, Elizabeth and C. Oti-Boateng. 2012. Terminal Evaluation of project GEF/2140: Removing Barriers To Invasive Plant Management in Africa (RBIPMA). Prepared for UNEP Evaluation Office. Nairobi, Kenya. 103 pp.

75. As indicated in the MTIASIC Project Document, the management structure for the project is typical PRINCE 2 type in which activities are managed and coordinated by a 'project manager' but the ultimate responsibility for timely and efficient implementation lies with a project board.

76. As GEF Implementing Agency, UNEP has the direct fiduciary responsibility before the financing agency, the GEF, and plays the role of Project Assurance Role. Through signing a 'Cooperation Project Agreement' (CPA) with CABI, this later organization became the Regional Executing Agency (REA) of the project holding all responsibility and liability before UNEP (PCA/2009/007).

77. The REA assigned the project leadership to a Regional Coordinator (RC), in this case Mr. Naitran (Bob) Ramnanan, and created a coordination office within its regional HQs in Curepe, Trinidad, where the Project Management Unit (PMU) was hosted. The PMU counted with a dedicated contracted accountant.

78. At country level, a National Coordinator (NC) was hired or assured for each country through three different mechanisms:

    i. Directly contracted by CABI, who then assigned the person to the National Executing Agency (NEA) (e.g., in Trinidad and Tobago),
    ii. Contracted directly by the NEA with funds that had been provided by CABI through the CABI-NEA agreement (e.g., Saint Lucia), and
    iii. The NEA assigned one of its officers to perform as NC but CABI provided funding to the NEA so that it can contract necessary services or temporary staffers to fill in the gaps left by the NC. At project completion the NC returns to its duties in the NEA (e.g., Bahamas).

79. Three of the NCs accompanied the project throughout its life (Dominican Republic, Jamaica and Saint Lucia) while the

two other countries saw changes in staff. In the case of the Bahamas, the initial NC coordinator, Ms. Lakeshia Anderson, was replaced around midway into the project as she moved on to a partner organization (and fortunately Ms. Anderson remained a close collaborator of the project). In Trinidad and Tobago, Mrs. Velda Ferguson-Dewsbury was hired as NC after around six or seven months of project initiation and the initial acting NC, Mr Assim Dilbar, moved on to become a pilot project leader.

80. In addition to the NCs, each country designated a 'Project Director' (PD) as member of the 'International Project Steering Committee (IPSC). As indicated in section E about key dates during the project, the IPSC met six times and held one extended conference call. Minutes were recorded for each of the IPSC meetings (made available to the TE). As indicated early in the introduction to this TE, ANNEX B contains the list of NCs and PDs.

81. At country level, a 'National Project Steering Committee' (NSC) was formed to provide support and validation to MTIASIC activities but also to ensure the necessary inter-institutional coordination. Two of the countries provided the completed set of NSC meeting minutes (Saint Lucia and Jamaica). In both cases, having access to the minutes proved to be very important to understanding the complexities of some situations but also the professionalism and good work of both NCs. As per interviews conducted for this TE, it seems that meetings of the NSC in Dominican Republic did not take place regularly but more in ad-hoc mode. For example, after the Pine Weevil was detected, an extraordinary NSC meeting was called, followed by a second meeting a few days later. ANNEX I contains the NSC members for Dominican Republic, Jamaica and Saint Lucia.

G- PROJECT FINANCING

82. The budget originally approved by the GEF Secretariat for the project is found in the table below. Funds came from the GEF Trust Fund, mostly from country allocations (90% +).

Table 6: GEF Trust Funds approved for MTIASIC Project (According to the MTIASIC's ProDoc; US$)

	YEAR 1	YEAR 2	YEAR 3	YEAR 4	TOTAL	YEARLY AVERAGE
Bahamas	122,247	57,377	63,073	55,877	298,574	74,643.50
Dominican Republic	170,235	123,440	116,940	121,940	532,554	133,138.50
Jamaica	242,925	215,195	148,200	142,700	749,020	187,255.00
Saint Lucia	217,246	106,655	103,215	106,455	533,570	133,392.50
Trinidad and Tobago	234,290	146,947	117,138	118,187	616,561	154,140.25
Regional Executing Agency (CABI)	82,080	74,000	74,000	73,668	303,748	75,937.00
TOTALS	**1,069,023**	**723,613**	**622,566**	**618,826**	**3,034,027**	**758,506.75**

83. During the project planning phase, total in kind funds committed by the REA, NEAs and partners mounted to US$3,379,367, according to data coming from the project's ProDoc and re-organized in Table 7 (following page).

Table 7: Co-financing committed by countries and their partners (According to the MTIASIC's ProDoc)

	YEAR 1		YEAR 2		YEAR 3		YEAR 4		LIFE OF PROJECT		TOTAL BY COUNTRY
	CASH	IN KIND	CASH	IN KIND	CASH	IN KIND	CASH	IN KIND	CASH	IN KIND	
Bahamas	$ 27,812.00	$ 45,790.00	$ 34,644.00	$ 51,141.00	$ 58,267.00	$ 47,931.00	$ 51,242.00	$ 39,400.00	$ 171,965.00	$ 184,262.00	**$ 356,227.00**
Dominican Republic	$ 89,000.00	$ 83,461.50	$ 84,165.00	$ 73,685.50	$ 73,835.00	$ 74,061.50	$ 74,000.00	$ 68,891.50	$ 321,000.00	$ 300,100.00	**$ 621,100.00**
Jamaica	$ 154,800.00	$ 79,500.00	$ 164,900.00	$ 80,340.00	$ 170,030.00	$ 81,628.00	$ 175,200.00	$ 83,560.00	$ 664,930.00	$ 325,028.00	**$ 989,958.00**
Saint Lucia	$ 67,500.00	$ 100,000.00	$ 67,500.00	$ 100,000.00	$ 67,500.00	$ 100,000.00	$ 67,500.00	$ 100,000.00	$ 270,000.00	$ 400,000.00	**$ 670,000.00**
Trinidad and Tobago	$ 148,841.50	$ 56,190.25	$ 130,802.50	$ 44,881.25	$ 71,278.50	$ 27,420.75	$ 55,365.50	$ 27,301.75	$ 406,288.00	$ 155,794.00	**$ 562,082.00**
Regional Executing Agency (CABI)	$ -	$ 34,200.00	$ 20,000.00	$ 28,600.00	$ 20,000.00	$ 28,600.00	$ 20,000.00	$ 28,600.00	$ 60,000.00	$ 120,000.00	**$ 180,000.00**
TOTALS	$ 487,953.50	$ 399,141.75	$ 502,011.50	$ 378,647.75	$ 460,910.50	$ 359,641.25	$ 443,307.50	$ 347,753.25	$ 1,894,183.00	$ 1,485,184.00	**$ 3,379,367.00**
		$ 887,095.25		**$ 880,659.25**		**$ 820,551.75**		**$ 791,060.75**		**$ 3,379,367.00**	

84. Total co-financing from regional and global partners as compiled for the ProDoc was planned to be:

Table 8: Total co-financing from regional and global partners (Adjusted from ProDoc[26]

Name of co-financier (source)	Cash	In-Kind
UNEP CAR/RCU	$ 40,000	$ 60,000
APHIS	$ 40,000	$ 40,000
CERMES	$ 22,400	
CARICOM	$ 5,000	$ 300,000
CARINET	$ 17,200	$ 8,850
ELI		$ 20,000
FAMU	$ 60,000	$ 80,000
FAO		$ 100,000
IABIN	$ 20,000	$ 34,500
IICA	$ 15,000	$ 25,000
CISWG	$ 4,550	$ 5,850
GISP[27]	$ 100,000	$ 100,000
RAC REMPEITC		$ 70,000
SUSTRUST	$ 20,000	$ 15,000
TNC	$ 82,095	$ 14,164
UF-IFAS	$ 40,000	$ 80,000
TOTALS	**$ 466,245**	**$ 953,364**
GRAND-TOTAL	**$**	**1,419,609**

85. In other words, at the time of ProDoc submission to the GEF Secretariat, the committed co-financing grand-total mounted to US$4,798,976 for a project total of US$7,833,003. Investment from the GEF Trust Fund was initially estimated at around 38.73% of the total.

H. PROJECT PARTNERS

86. In addition to project partners that committed financial resources to the project, mentioned above in Table 8, several other governmental, non-governmental, academic and community organizations embrace the project and became partners during its implementation. As indicated before, ANNEX D contains a partial list of partners and stakeholders that either collaborated with the project or participate in some project activities or both.

87. The 19 regional and global partners that committed funds and provided letters of endorsement when the ProDoc was

[26] Co-financing numbers in the financial section of the ProDoc do not add up. Numbers presented here come from the ProDoc but totals have been corrected.

[27] Sadly, given the difficult financial situation faced by the Programme, the Global Invasive Species Programme (GISP) close down on March 2011 after 14 years of service and leadership.

presented to the GEF Secretariat are found in ANNEX J (with the exception of GISP, for reasons explained in the footnote, and CABI, which as REA already committed funds and endorsed the project).

88. As this TE will detail further in the next chapter, partners' capacity to deliver their commitments, whether financial or in kind, varied significantly and in many cases was different than what their original offer was.

89. The project has been extraordinary in its capacity to create connections with local groups and communities (although varying from country to country significantly). Even more, some of the partnerships created are very strong and continue expanding, like with UWI. Still, project documents are very lax and not systematic in managing the long list of partners: some are certainly partners, others have indicated that their participation was very small or was just informative, and still another organization disappeared but continued being mentioned as partner long time after it closed its doors. There is at least one organization that has contributed in major ways and is not included as partner, and another organization that provided important contributions and capacity building to a participating country and its name and status was changed in the project's reports. At least one Governmental agency changed its name early during the project implementation but its name has never been updated. The issue of how the partnership list is managed was already raised by the MtE.

L.L.	In project progress reports, project partners' names can easily be omitted or mismanaged unintentionally. NGOs and governmental agencies take pride of their name and the contributions they give to projects. They care significantly about how their name is used. Not recognizing the contribution to projects from NGOs and agencies is inadequate as it is to continue including organizations whose participation or contribution has been noticeably small or just informative. Inadequate management of the list of participants and partners to a project goes against the project's image. Project documents must be systematic and rigorous about who is a partner to the project (financially politically, technically, etc) and how they are mentioned. Separate the different roles played by organizations (some may simply be stakeholders and that is perfect for them), and make sure to include those organizations that are contributing to the project and with their correct name. Update your partner list periodically.

I- RECONSTRUCTED THEORY OF CHANGE

90. While the MTIASIC project was not planned using the 'Theory of Change (ToC)' methodology, some of its planning output documents contain enough information as to reconstruct a ToC that could help explains and evaluate project achievements. Particularly, the project logframe is very complete and was helpful in this task. For this section, the initial ToC presented in the TE inception report has been updated using the updated logframe of the project (ANNEX H). The project's ToC diagram is presented in Figure 2. Outputs and early outcomes tend to appear clustered since some of them resulted from the same project component. The ToC presents four clearly defined pathways that contribute to reach the objective. Also important to notice is that pathways are not fully independent from each other as outcomes and intermediary states in one pathway may exert influence in other pathways. As an example, the early outcome from Component 4 'Strengthened National Capacity to Prevent Biological Invasions' will increase knowledge and awareness of stakeholders (Intermediary State) and then that intermediary state will contribute to achieve Outcome 3b and Outcome 4, both in different pathways. It is also convenient to notice that this early outcome can influence other early outcomes.

91. To move up along the pathways, actions or interventions need to take place and there may be assumptions of what factors may catalyze moving up or what factors may be impeding progress. The 'Risk and Assumptions' column of the logframe contains many of these assumptions (but not all). Given the high number of assumptions mentioned in the project's logframe in addition to those identified by this TE, only the most important of them will be included in the following paragraphs.

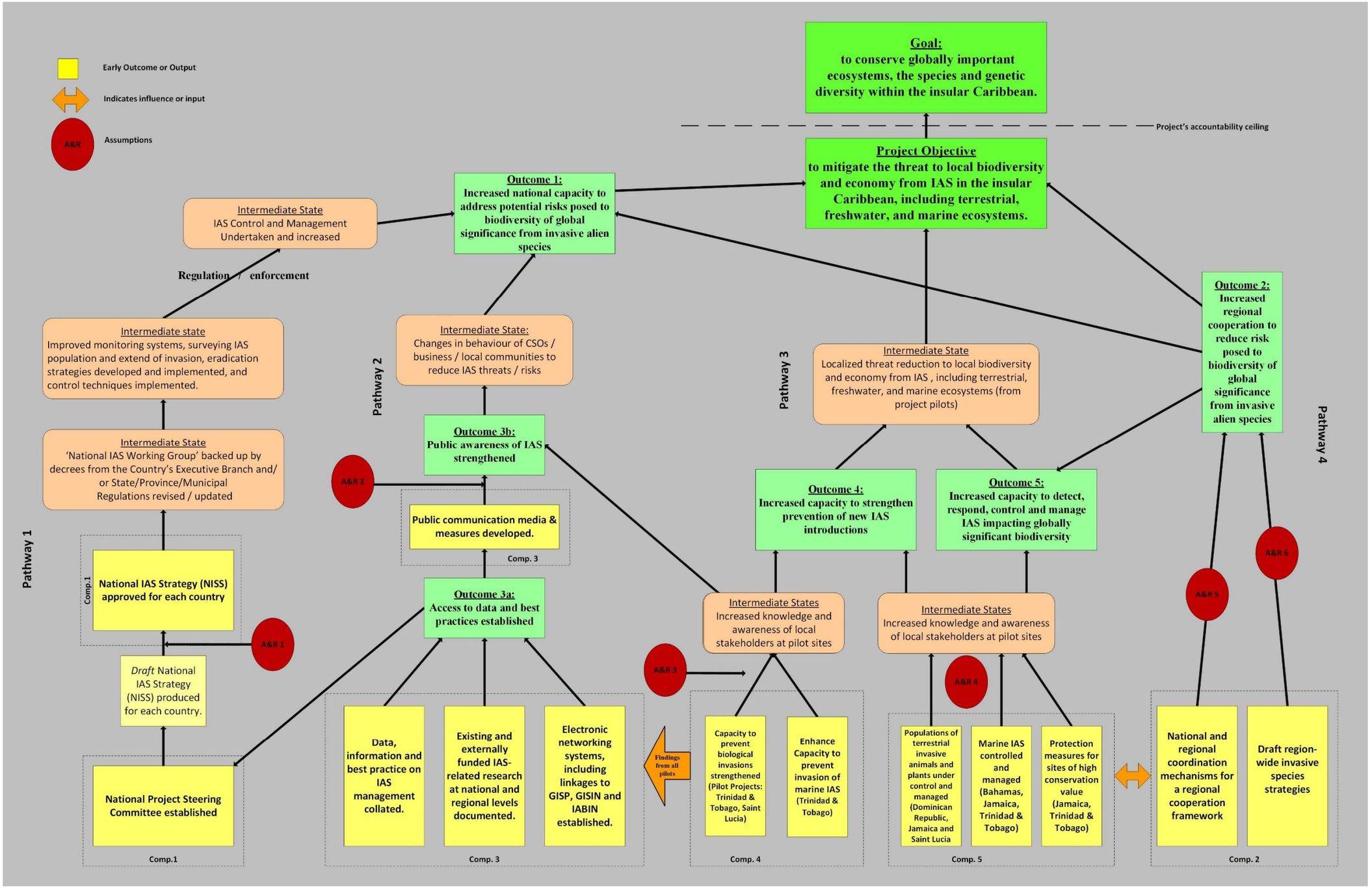


Figure 2: MTIASIC Reconstructed Theory of Change based on Updated Logframe and Pilot Projects

Pathway 1 represents what is expected to be a natural progression towards increased national capacity on IAS. Once the National IAS Working Group (NIASWG) is in place, this body will be able to increase surveys, draft and put in place monitoring protocols, prepare eradication plans and promote their implementation, etc. As the NIASWG continues developing these activities, through new regulations and enforcement, the country will reach and eventually consolidate new capacities to address the threats posed by IAS to national and regional biodiversity. There may be one or a few intermediary states along the process. For the project to move along pathway 1 and contribute to the objective, there are some assumptions and risks (diagram A&R 1) to consider:

- Agencies are truly concerned with IAS and welcome collaboration and participate in NSC, and then work toward institutionalizing a NIASWG under a formal national 'umbrella'
- Enabling political environment is in place or achieved through MTIASIC
- Private sector recognizes potential impacts from IAS and long term benefits of managing them
- Governments willing to adopt NISSs and implement their recommendations
- Stakeholders aware of negative impacts of IAS and recognize need for unified strategies

92. Similarly, key intermediary states are needed in Pathway 2 to move from Outcome 3b (Strengthened Public Awareness of IAS) to Outcome 1 (Increased National Capacity). Basically, an intermediary state needs to happen in which that awareness results in behavior changes of Civil Society Organizations (CSOs), businesses and local communities. Awareness alone would not bring the necessary changes. If correct, the following 'Assumptions' will allow Outcomes coming through component 3 to move the countries closer to the objective and goal (diagram A&R 2):

    - the public and stakeholders will become eager to learn about IAS and their impact on biodiversity and people's livelihood, and will therefore influence public officers and government
    - media outlets find beneficial to their social interest to put IAS among their priorities

93. Pathway 3 presents another very important consideration: increased knowledge and awareness will lead simultaneously to augmented capacity to strengthen prevention of IAS (Outcome 4) and to strengthening of public awareness (Outcome 3b). Outcome 4 must lead to localized actions that, by preventing biological invasions, result in verifiable reduction of IAS threats to national biodiversity and economy.

    Assumptions that need to prove correct are (diagram A&R 3):

    - Data for completion CSAs is available to and use by NEAs for this task
    - Information from CSAs, CIAS-Strategy and pilot projects to inform 'Best Practice'
    - Information from CSAs and CIAS-Strategy to inform NISSs
    - Trinidad and Tobago fully embraces work to prevent the alien agricultural pest 'Frosty Pod Rot (FPR)' and through it an increased awareness of IAS is reached
    - Bahamas and Jamaica cooperate effectively on lionfish
    - Effective lionfish control strategy is identified by pilot projects
    - Public interest in pilot projects is fostered and maintained
    - Target groups motivated to participate and make use of electronic media
    - Global demand for IAS information available electronically
    - MTIASIC information and products hosted in web pages/e-libraries (IABIN, CIASNET, etc)
    - CABI's Invasive Species Compendium (ISC) development continues on schedule
    - Low initial levels of public awareness are overcome by the project and is responsive to Caribbean biodiversity and development needs
    - General public receptive to information on environmental issues

94. Also related to Pathway 3, reaching Outcome 5 requires that a few key assumptions prove correct (diagram A&R 4). First, as shown in the ToC diagram, that the two directional flow of information (inputs/outputs) between components 5 and 2 is working and agencies as well as practitioners are willing to learn from each other and consult each other: peer review of plans and studies is very important.

While the diagram and flow in Pathway 4 seem self-evident and straight forward, there is a very important technical and political consideration that may not be totally evident: in archipelago regions, like the Caribbean, the only way to tackle the IAS problems in a sustainable and cost-effective manner is by using national and regional strategies simultaneously. Furthermore, increased regional cooperation will have a significant positive impact on the country capacity to address IAS (Outcome 1) and will directly contribute to mitigating the threats from IAS (direct connection to the MTIASIC objective). Some of the assumptions underlying the possibility to move up along this pathway are (A&R 5 and 6):

- Commitment of project partners to regional collaboration, particularly CISWG, remains strong and there are no political or institutional constraints
- Organizations put IAS objectives at the highest priority, maximizing synergy and minimizing potential conflicts of interest/competition
- Working groups and governmental agencies agree on regional strategies

95. Three out of five components in the project have no on-the-ground IAS management activities but include activities that will help create necessary enabling conditions.

96. In order to achieve conservation of globally important ecosystems and biodiversity in the Caribbean, several different types of projects and initiatives are necessary. The MTIASIC Project is just one of them. Therefore, the MTIASIC project is only partially accountable for achieving the 'visionary' conservation goal for the Caribbean that this project has adopted as its goal. In other words, as per the ToC, the 'Goal' is above the project's accountability ceiling. While this may seem an unnecessary clarification, it is important that stakeholders and the public understand this fact. Otherwise, unfulfilled expectations may result in an inadequate, unfair judgment of the project's achievements.

IV. EVALUATION FINDINGS

A. STRATEGIC RELEVANCE

97. The MTIASIC project has had and will continue having a very high, strategic relevance for UNEP as well as for the participant countries and GEF.

98. During at least the past 28 years UNEP has had a demonstrated interest and policies toward IAS in the Caribbean. UNEP's 'Caribbean Environment Programme (CEP)' was created in 1986, the same year that the Cartagena Convention entered into effect, becoming the Secretariat of the Convention. As indicated in Paragraph 27, the Convention contained considerations about the need to bring under management the IAS present in the Caribbean and to prevent further IAS arrivals. Later on, adopted in 1990, the Convention's Protocol on 'Specially Protected Areas and Wildlife (SPAW)' also contained considerations about regulating or prohibiting the introduction of non-indigenous species (Arts.5, 12).

99. Furthermore, UNEP's biennial programme of work 2010-2012, in its paragraph 17 on ecosystem management, indicates that "UNEP will facilitate a cross-sectorial, integrated approach to ecosystem management to reverse the decline in ecosystem services and improve ecosystem resilience with respect to such external impacts as habitat degradation, invasive species,...".

100. In 2006 a milestone was reached in the Caribbean through UNEP's work with CABI for the completion of the first assessment on institutional capacities for dealing with marine invasive species (MIS) (see paragraph 35).

101. And during the past decade other GEF-funded projects dealing with IAS have been implemented by UNEP, such as project "Removing Barriers To Invasive Plant Management in Africa- RBIPMA, GEF 2140".

102. Importantly, the MTIASIC Project is in line with the Bali Strategic Plan for Technology Transfer and Capacity Building (see Paragraph 214 further down).

103. Participating countries are 'Small Island Development States (SIDS)' in which each country is formed by several

islands. They possess endemic biodiversity that is distributed across those islands (see Table 1 in 'Introduction' for a minimum count of endemic species in different islands threatened by IAS). IAS have been reported to be among the first three major threats to biodiversity in the Caribbean but also impact negatively agriculture production and health. Importantly, because of its social structure and history, Caribbean SIDS should not be considered as equal to other SIDS from the around the world, e.g., the Southwestern Pacific, or to islands from nations with islands. Nonetheless, careful exploration on the use of common, previously tested methodologies for dealing with invasive species is advised.

104. The 'Context' sub-Chapter, Chapter III, provides very detailed information of the status of international policies and agreements pertaining to Caribbean countries and IAS for more than twenty years prior to the ProDoc submission to the GEF Secretariat.

105. Countries participating in MTIASIC adopted the 'Barbados Programme of Action' in 1994, which calls for the preparation of "integrated strategies for the conservation and sustainable use of terrestrial and marine biodiversity, in particular endemic species, including protection from the introduction of certain non-indigenous species'.

106. Furthermore, in 1998, COP 4 invited "the Parties to address the issue of alien species for the conservation and sustainable use of biological diversity and to incorporate such activities into their national strategies, programmes and action plans." Two year after, in 2000, COP 5 "**Urges** Parties, other Governments and relevant bodies to give priority to the development and implementation of alien invasive species strategies and action plans", "**Strongly** encourages Parties to develop mechanisms for transboundary cooperation and regional and multilateral cooperation in order to deal with the issue". Two more years down the road, in 2002, COP 6 persisted in reconfirming the need (call) for strengthening national capacities, regional cooperation and the formulation of national IAS strategies and action plans. Additional calls for action coming from CBD continued during COP 7 (2004) and COP 8 (2006).

107. MTIASIC come to fill a major, amply recognized gap by Caribbean countries in relation to national capacities and transboundary/regional cooperation. E.g., throughout the first decade of the XXI Century, among participant countries, the only State with a national invasive species strategy was the Bahamas, drafted in 2003. Furthermore, as indicated in the 'Context' section of Chapter III, among the NBSAPs that existed before the approval of MTIASIC, only the Bahamas plan from 1999 had given adequate attention to IAS followed by the Jamaica Plan in 2006. This table must be illustrative of the achievements and relevance of MTIASIC in terms of helping governments prepared and adopt their NISS:

Table 9: National Invasive Species Strategies as products of the MTIASIC Project

COUNTRY>>>>	Bahamas	Dominican Republic	Jamaica	Saint Lucia	Trinidad and Tobago	Caribbean Region
NISS / NISSAP	2013 MTIASIC product	2011 MTIASIC product	2014 MTIASIC product	2011 MTIASIC product	2011 MTIASIC product	2011 MTIASIC product

108. The MTIASIC Project is the first and only regional scale attempt to 'mitigate the threat to local biodiversity and economy from IAS in the insular Caribbean, including terrestrial freshwater and marine ecosystems'. The project pursued this through a four components initiative that focuses on creating national and regional capacities, and provides national frameworks for policy building and regional strategies that could be adopted by intergovernmental bodies.

109. The project is relevant in its own essence as it is a response to long standing needs of the countries and the region. The relevance of the work performed will outlast the project itself and will move toward sustainability. Particularly important to highlight is the fact that communication and information exchange mechanisms exist at regional level (CIASNET), three out of five countries now have formal national invasive species working group (Dominican Republic, Jamaica and Trinidad and Tobago) and a third country (Bahamas) is closed to also counting with its NISWG.

L.L.	Successful projects are those that respond to long standing and expressed needs from countries. Often, in order to identify pressing needs at country and regional levels, following the discussions and resolutions from international treaties and intergovernmental bodies, allows to detect gaps in capacities and regulatory frameworks. Experience seems to show that countries will demonstrate a genuine interest if opportunities arise to help them fill those gaps and create capacity. As learned from the MTIASIC planning, planning teams should conduct an analysis of the recurrent needs and gaps expressed by countries, intergovernmental bodies and international treaties and focus the selection of projects on the high priority common needs documented.

L.L.	Three of the participant countries' NBSAPs are more than 10 years old. During the past 15 years, significant new information have been generated about Caribbean biodiversity and IAS. Projects may generate sectorial strategies and plans, like the new NISS generated through MTIASIC, that make it evident how other national strategies in the country may be outdated (as it has occurred with the NBSAPs of some MTIASIC countries). New sectorial strategies should serve as encouragement to countries to update all related national strategies that are clearly outdated.
R	UNEP and UNEP-CEP should explore with appropriate countries the possibility to request assistance from GEF for funds for enabling activities, and work with those countries in the preparation of new NBSAPs. It should not be discounted that a good approach, given economies of scale and the cross-learning potential, would be to do the work simultaneously in four to six countries.

110. The project objective is an enunciative, non-quantifiable objective statement that does not allow for easy, unbiased evaluation. Still, it is correct that all activities were planned and implemented to move the project and countries closer to achieving this objective.

L.L.	Planning and budgeting an eradication or IAS control activity is no easy task, in spite of extensive experience on IAS control and that more than a thousand eradications have taken place around the world.[28] Before approving an IAS project and committing to fund the implementation of eradications or IAS control activities, planning teams and agencies dealing with IAS should prepare a feasibility assessment and detailed budget to determine what seems possible to undertake. It is necessary to determine where the populations of your IAS target fall in an invasion curve[29] and decide if the best approach is to try managing the IAS or investing the financial and human resources into protecting your biodiversity in other ways. Seek assistance from specialists and agencies with well recognized experience on IAS management and/or eradication.

STRATEGIC RELEVANCE RATING: HS

B. ACHIEVEMENTS OF OUTPUTS

111. Output 1.1. National IAS working Group established in each country:

Bahamas:
The Bahamas IS Working Group will be housed at the Environment Ministry together with the IS National Coordinator, but it is not clear when this will happen. Both the NC and the PD coincided on this appreciation. Nonetheless, there seems to exist doubts on whether this is a priority for the Ministry. It is not clear whether there will be new legislation backing up the work of the Bahamas ISWG and the national coordinator, but the BEST Commission anticipates increased implementation on the ground. Interestingly, the Bahamas had an original budget of US$12,000 to support the ISWG creation but the total spent on it was only US$1,163 (with a change in budget equal to – US$10,836)30. It is not clear whether there was a change in the budget made by

[28] For an analysis of the cost of eradicating goats in Galapagos see: Carrion et al (2011).
[29] For recent publication using 'invasion curves' to support decisions visit: http://www.sfrestore.org/tf/minutes/2014_meetings/050614/Strategic_Action_Framework.pdf
[30] At the moment of writing this TE there was no final financial report for the project. Financial information received was that of Q4 for 2009 through 2013, and some partial country reports.

IPSC (not documented) or whether Bahamas was underspending. In any case, the Bahamas Project Director indicated that "Perhaps there is a relationship with the budget" and the status of the ISWG.
Rating: MS

Dominican Republic:
The Dominican Republic ISWG was created by a resolution of the Environment and Natural Resources Ministry and until now has been led by the MTIASIC National Coordinator. According to an interview with the head of the Department of Genetic Resources, who also serves as CBD's National Focal Point to the Clearing House Mechanism (CHM), the reactivation and formalization of the ISWG is one of the most important achievements of MTIASIC in the country. The ISWG will be led by the Genetic Resources Dpt, which will count with the minimum necessary funding to continue its activities. The working group is not holding regular meetings but, as demonstrated during the Pine Weevil crisis that affected the country, it can meet as needed and create working committees with specific tasks. Members of the group communicated some dissatisfaction with the low frequency of the meetings and level of activities. Given the decisive steps toward institutionalizing the ISWG and how it responded to the Weevil crisis, the low frequency of meetings during the past year is seen as something circumstantial that will be overcome shortly.
Rating: HS

Jamaica:
Before MTIASIC, Jamaica was the only country with a functional invasive species working group. Surely influenced by MTIASIC's achievements, the Jamaican Government has made the decision to host the Jamaica's ISWG within the Ecosystem Branch of the National Environmental and Planning Authority (NEPA). While not a resolution published in a national gazette, the decision has been documented internally through official documents. As per interviews with authorities and officers from NEPA, it is expected that a budget allocation will allow the regular functioning of the working group.
Country rating: HS

Saint Lucia:
With the project inception, an ad hoc Invasive Alien Species Working Group was established in Saint Lucia in October 2009: the Saint Lucia IASWG (SLU-IASWG). The group was formed in the most inclusive, participatory approach including up to forty members representing several governmental and nongovernmental organizations. The SLU-IASWG met regularly, keeping detailed minutes of its deliberations and decisions. The group worked with consultants for the preparation of the NISS. The SLU-IASWG was also involved with a legislative drafter for the formulation of the Invasive Species Bill which is pending approval by Parliament. During a meeting with several officers from the Forestry Department, Ministry of Sustainable Development, Energy, Science and Technology (MSDEST), there was general expectation that SLU-IASWG would become stronger if supported by a Cabinet decision. The UNEP's Task Manager continues working with the Permanent Secretary of the MSDEST to have the IS Bill approved and the SLU_IASWG backed up by the executive.
Country rating: S

Trinidad and Tobago:
Right after the late signing of the country agreement for the initiation of activities under the MTIASIC project, Trinidad and Tobago created a multi-stakeholder, inter-institutional project NSC. The NSC functioned through the project life as planned. In March 2014, the government of Trinidad and Tobago formally approved the creation of the 'National IAS Coordination Mechanism' which among other tasks will lead and expand the NSC into a 'National IAS Advisory Committee'. This committee will be led by executive staff and will receive budget allocation from the executive.
Country rating: HS

112. It is very important to highlight that having three countries with national ISWG established by their executives (Dominican Republic, Jamaica and Trinidad and Tobago), while a fourth country (Saint Lucia) is waiting for approval of a new IS Bill by the Parliament, is a great achievement by the MTIASIC. Ideally, in the long term, these countries will be much better positioned to pursue new IAS legislation to back up the existence and functioning of the national IAS working group.

OUTPUT RATING: HS (3HS, 1S, 1MS)

L.L.	Creating a functional and dynamic inter-institutional working group requires having in place a favorable/inviting environment, providing necessary documents and communications, providing latest books and publications on the subject and organizing field visits to learn on the ground about a case studies. Enthusiasm and commitment from members will increase with select capacity building incentives.
R	Countries and NEAs that participated in the MTISASIC Project should budget a yearly allocation and staff time to keep the national ISWGs running and functioning. In future projects, 'Implementing Agencies' should make sure that necessary funds for the creation of national working groups are adequately budgeted during project planning.

113. Output 1.2. National IAS Strategy (NISS) produced for each country:

- Bahamas:
  The Department of Marine Resources completed the Bahamas National Invasive Species Strategy in 2013. The Strategy seems to have reached high levels in the government since its presentation was done by the Permanent Secretary of the Ministry of Environment and Housing. This is the second NISS that Bahamas has produced (first one in 2003). The Strategy is recognized as a product of MTIASIC. The NISS has a structure that fulfills the basic needs for a strategy of its kind. Nearly one third of the content is very basic and enunciative, something that may be needed in the country as to educate readers about IAS and their management. The NISS defines 9 management objectives containing key activities and strategies. Objective 8 contains several actions in the policy regulatory realm including the appointment of a national coordinator and the creation of an inter-institutional coordinating body. The NISS is not clear about who should undertake those actions or who/how these will be funded, and by default it seems to be understood that it is the Ministry of Environment. It contains a simple implementation strategy which suggests ample participation of government agencies including Customs, the Mail service and the port Authority, among others. Interestingly, it proposes that school curricula must include courses on the biology of IAS.

  The Bahamas NISS defines nine IAS that should have individual management plans. However, four important and very detrimental invasive species present in the country have not been included in that list: mice, black and brown rats, and feral pigs. The NISS presents a list of species prioritized for eradication although it does not mention the criteria for such selection. Shiny Cowbird was also included in the list of eradication priorities of the 2003 strategy but obviously the species was not eradicated. Shiny Cowbird has been expanding naturally across the hemisphere and many Caribbean Islands. It may have already significant, well-established populations in the Bahamas. Without any eradication experience on invasive bird species and given the expansion of its range, it is very unlikely that an eradication attempt for this species would succeed. The 2013 NISS does not make the connection between threatened endemic Bahamian biodiversity and IAS, neither has it considered the eradication of invasive alien rodents/predators that are threatening endemic Bahamian reptiles in several small cays in the Bahamas, such as Hog and Sandy, which seem feasible for eradication. IAS do not need to be eradicated in all islands but only in priority islands for biodiversity conservation or where economic and health impacts are occurring. Often, from a technical perspective, a given IAS can be eradicated in one island but cannot be eradicated in other islands.
  Rating: MS

- Dominican Republic:
  Prepared with support from MTIASIC, the Dominican Republic NISS has a very good structure that proposes strategic action lines according to effectiveness of IAS management practices: i) preventing invasions, ii)

early detection and rapid response, iii) management (control, eradication, containment), and so. Importantly, there is a strategic action line dedicated to funding the NISS implementation. The NISS formalizes the composition of the national ISWG. It contains an action plan that assigns clear responsibility to governmental agencies, academia and NGOs for the implementation of specific actions. It includes a comprehensive list of IAS present in the country (though probably some of the species do not have an invasive capacity in Hispaniola), and makes some connections between IAS and important biodiversity. One weakness of the NISS is the lack of a timeframe for implementation.
Rating: S

- Jamaica:
  The Jamaica's National Invasive Alien Species Strategy and Action Plan (NIASSAP) is very well structured, following the same logic of priority strategies for dealing with IAS. Very conveniently, it includes the critical situational analysis as the basis for the strategy design, and a time table for implementation using 'general timelines' (Short-term, ongoing, etc). It is also abundant in terms of useful annexes, like the 'guiding principles' from Decision 20 in COP 6. Two important gaps remained after the publication of this NIASSAP. First, there is a relatively weak connection between the 18 vertebrate IAS reported for main island Jamaica and the 21 threatened species on the island, with the exception of the Jamaica Iguana case. And, secondly, there are no consideration on how to proceed with or what type of research to conduct in relation to the potential threatened Jamaican or Caribbean species that live or depend on the more than 40 Jamaican off shore islets. E.g., there are at least 59 Jamaican endemic amphibian and reptile species, most of which are not in the TIB or IUCN RedList. Are any of those living in off shore islands and threatened by IAS? As it is happening in other SIDS, like in Saint Lucia, off shore islands may play a very significant role for conservation of endemic biodiversity when the major islands (too big and too populated) can no longer serve for the conservation of some species.
  Rating: S

- Saint Lucia:
  The Saint Lucia's NISS has a very easy to read structure and layout. Texts are short, and pictures of endemic biodiversity and IAS give it huge appeal. The NISS puts significant attention to maintaining the off shore islands IAS free as a way to create save havens for endemic biodiversity. This concept may have originated from work conducted by Flora and Fauna International (FFI), the DWCT and the Forestry Department, but has also been embraced and supported by MTIASIC. Rightly, the strategic and programmatic interventions include a component on resource mobilization. While there are some considerations about control and/or eradication of invasive predators along the document, none of the strategic and programmatic interventions described deal with control and management (including eradication). Key policy proposals include the creation of an IAS agency, and some important eradications are identified as priority actions (Dennery Island). The NISS proposes to continue the eradication of green iguana in the Soufriere area (for which the first step should be to conduct a comprehensive, unbiased feasibility assessment and then follow on its findings and recommendations). The NISS does not contain any consideration about the existence and potential invasion of monkeys in main island Saint Lucia neither it elaborates about what to do with the incipient invasion, which has already been documented, of Orange-winged Parrot.
  Rating: MS

- Trinidad and Tobago:
  This document focusses almost entirely on agricultural pests and, to a minor level, on human health. Certainly mentions damages inflicted by IAS to ecosystems and the impact to biodiversity, but fails to mention some of the most common and abundant IAS in Trinidad and Tobago (cats, black rat, brown rat, mice, etc). Rather, it focuses on 'Citrus Black Fly, Citrus Leaf Miner, Black Sigatoka Disease, the Red Palm Mite, Coconut Moth' and H1N1 virus. It has always been known that most initiatives related to IAS in many regions have been initiated from the agriculture sector. This is natural given its historical importance. Furthermore, this NISS does not build upon the extensive body of guidelines and decisions that have come from the CBD (SBSTTA, COPs) and many other bodies specialized on invasive species (GISP, IUCN-ISSG, etc). The NISS does not take into account what is known about threatened native species in the off shore islands of Trinidad and Tobago, like the case of the 'Bloody Bay Poisson Frog (*Mannophryne almonae*) in Little Tobago Island. Doing brief biodiversity inventories and IAS detection in islands such as Little Tobago, Saint

Giles Islands, or any other of the nearly 37 off shore islands and islets of the country must be a high priority that should have been mentioned in the NISS. The NISS does not presents a list of the most important IAS for Trinidad and Tobago though it offers the hypothesis that there could be around 50.

The NISS of the participant countries would have been much better achieved if additional technical support had been provided to the countries.
Rating: U

114. With the exception of the Jamaica NISSAP, none of the completed NISSs elaborate on or take advantage of the commitments made by the MTIASIC participant countries to achieving the biodiversity targets set in the "Biodiversity Strategy 2011-2020" under the umbrella of CBD. As it is well known, as per Aichi biodiversity target 9, MTIASIC countries are committing to "By 2020, invasive alien species and pathways are identified and prioritized, priority species are controlled or eradicated, and measures are in place to manage pathways to prevent their introduction and establishment". Furthermore, under the Biodiversity Strategy 2011-2020, there are two additional biodiversity targets that are directly affected by IAS and to which countries have committed:

- Target 12: By 2020 the extinction of known threatened species has been prevented and their conservation status, particularly of those most in decline, has been improved and sustained,

- Target 11: By 2020, at least 17 per cent of terrestrial and inland water, and 10 per cent of coastal and marine areas, especially areas of particular importance for biodiversity and ecosystem services, are conserved through ***effectively*** and equitably managed, ecologically representative and well-connected systems of protected areas and other effective area-based conservation measures, and integrated into the wider landscapes and seascapes.

Furthermore, while four out of five NISS paid attention to COP 6 Decision VI/23 (the exception was Trinidad and Tobago), very little attention was paid by the different NISSs to decisions, recommendations and tools generated by the CBD and its bodies after 2008.

OUTPUT RATING: MS

L.L.	During the 5 to 7 years that comprise the planning and implementation of a GEF FSP, many changes in international and national policies may occur. Some of these changes may be directly related to the project's objectives and could make it easier to achieve the long term outcomes. Furthermore, as in the case of the Convention on Biological Diversity (CBD), significant analytical work is conducted by subsidiary bodies such as the 'Subsidiary Body on Scientific, Technical and Technological Advice (SBSTTA)' and many high quality products are made available for Parties to be able to fulfill their commitments under the Convention.
R	Looking forward after the MTIASIC Project, participant countries and their NEAs should consider preparing and adopting brief guidelines and/or policy statements linking the new NISS to the country's commitments under international treaties; e.g., CBD's 2011-2020 Biodiversity strategy and the Aichi Targets. At the same time, countries and their NEAs should take advantage of those commitments to further achieving MTIASIC project outcomes in the mid to long term.

115. Output 2.1. National and regional coordination mechanisms for a regional cooperation framework:

This output included a few key activities with three main indicators:

I. The establishment of the 'International Project Steering Committee (IPSC)' was achieved during the first few weeks of project implementation since its creation was necessary for advancing the project. Its first meeting took place during the MTIASIC Project inception workshop in Jamaica. The IPSC was set to meet once every year or more frequently if necessary. During the course of the project it met pretty much according to schedule, with the exception of the 2011 meeting which took place in January 2012. The IPSC also had two meetings in 2013 and a final meeting in April 2014. Detailed minutes of the

meetings were produced and adequately archived. The IPSC played an important role during the project implementation and, importantly, there are strong indications of the willingness of former Project Directors to continue pursuing the MTIASIC objectives and goal;

II. Regional cooperation mechanisms for IAS in place: As it should have been expected, some members of the working groups have continued close collaboration after the CIAS-Strategy was completed. For instance, with financial support from MTIASIC, some members of the marine task force participated in and became co-authors of the regional Caribbean Lionfish strategy[31], a very important product that is creating significant awareness about invasive species.

III. Regional IAS Working Groups: During the first consultation meeting for the Caribbean Invasive Species Strategy (CIAS-Strategy), three groups were formed: terrestrial, aquatic and marine. These working groups were created as means to further more specialized discussions and work for the CIAS-Strategy. The groups' task forces at that moment included:

Table 10: Ecosystem Task Force Participants

Freshwater Task Force, led by Nelsa English	Marine Task Force, led by Dayne Buddo	Terrestrial Task Force, led by Velda Ferguson-Dewsbury
• Litta Paulraj – FAO, • Cynthra Persad – MOFP, T&T • Ulrike Krauss – MALFF, St. Lucia, replaced by Natalie Boodram, CEHI • Greg Rawlins – IICA, T&T • Michael Thomas – FAMU, USA • Andrea Donaldson – NEPA, Jamaica	• Seon Ferrari and Alena Joseph (alternate) – Fisheries St. Lucia • Lakeshia Anderson – Marine Resources, Bahamas • Danielle Rousseau – Inst. Of Marine Affairs – T&T • Farahnaz Solomon - Inst. Of Marine Affairs – T&T	• Seepersad Ramnanan – Forestry T&T • Lawrence Nelson – Forestry J/ca • Assim Dilbar – Min of Food Prod – T&T • Beena Persad - Min of Food Prod – T&T • Dave Samayah – Forestry Division – T&T • Kevin Goocharan - Forestry Division – T&T • Carol Thomas – IICA • Faraad Hosein • Lutchman Ragoonanan – Forestry T&T • Ulrike Krauss – MALFF • Tim Jn Baptiste and/or Alwin Dornelly - St Lucia Forestry Dept

OUTPUT RATING: HS

116. Output 2.2. Develop draft region-wide invasive species strategy (CIAS-Strategy):

One of the first decisions made by the IPSC during the project's inception workshop was to approach the preparation of the CIAS-Strategy through working groups, task teams and regional consultations, instead of contracting consultants for the preparation. This has been a positive decision that not only created fertile conditions for countries to buy-in but also permitted fruitful networking among participant practitioners. Rightly, it was decided that the IPSC would have oversight over the development of this main product of MTIASIC. The groups that worked in the CIAS-Strategy are those mentioned in the previous section.

For the preparation of the CIAS-Strategy, three consultative meetings were held:

- Port of Spain, Trinidad, June 2010;
- Saint Lucia, October 2010; and
- Bahamas, March 2011.

[31] See in references: Gomez-Lozano, R. et al (2013).

Participation to the meetings was adequate:

Table 11: Participants to preparatory meetings of the Caribbean IAS Strategy

	1st Meeting, Trinidad	2nd Meeting, Saint Lucia	3rd Meeting, Bahamas
Bahamas	2	2	19
Dominican Republic		4	3
Jamaica	4	5	5
Saint Lucia	2	7	4
Trinidad and Tobago	20[32]	4	6
Barbados	3		
Guadeloupe (France)	1		1
USA[33]	3		
Others (Regional)			4

117. The CIAS-Strategy uses an ecosystem approach based on the findings of the three thematic groups created during the first consultative meeting in Port of Spain. Given it regional nature, the CIAS-Strategy has two main objectives:

i. The need to strengthen existing national and regional programmes that protect natural resources and biodiversity under pressure from the entry and establishment of Invasive Alien Species; and
ii. The need to develop new or enhanced national and regional coordination and cooperation mechanisms that will allow a more rapid and efficient response to new and existing alien species invasions.

118. Similar to the case of the NISSs, the CIAS-Strategy does not pay attention to the "Biodiversity Strategy 2011-2020" neither it takes advantage of commitments made by Caribbean countries as Parties to CBD: as per Aichi biodiversity target 9, Caribbean and countries with OTs are committing to "By 2020, invasive alien species and pathways are identified and prioritized, priority species are controlled or eradicated, and measures are in place to manage pathways to prevent their introduction and establishment". Furthermore, under the Biodiversity Strategy 2011-2020, there are two additional biodiversity targets that are directly affected by IAS and to which countries have committed too:

i. Target 12: By 2020 the extinction of known threatened species has been prevented and their conservation status, particularly of those most in decline, has been improved and sustained,

ii. Target 11: By 2020, at least 17 per cent of terrestrial and inland water, and 10 per cent of coastal and marine areas, especially areas of particular importance for biodiversity and ecosystem services, are conserved through *effectively* and equitably managed, ecologically representative and well-connected systems of protected areas and other effective area-based conservation measures, and integrated into the wider landscapes and seascapes.

119. CABI and UNEP continue working to have the CIAS-Strategy adopted by CARICOM as its regional IAS strategy, and Trinidad and Tobago has offered to bring the case to the next meeting of the Council for Trade and Economic Development (COTED).

OUTPUT RATING: HS

[32] Includes staffers from CABI and IICA, both international organization with regional scope and local offices in Trinidad
[33] Includes one Trinidadian staffer from the USDA office in that country.

120. Output 3.1. Data, information and best practice on IAS management collated:

This output includes several key products: one IAS 'Critical Situational Analysis (CSA)' for each participant country and the best practices guidelines.

- Bahamas:
  The structure of the Bahamas' CSA is adequate as the information flow goes from biodiversity inventories to IAS inventories then provides a historical background on IAS in the country and, something which is its strength, it continues with presenting a good amount of information about policies, legislation and governmental institutions. It also provides examples of 'biodiversity conservation' activities being carried out in the country, including the recent eradication of mice in Allen Cay. The CSA fails to present and comment the eradications of introduced predators that haven taken place in the Bahamas during the past seventeen years.

  The biodiversity information provided by the CSA is very limited and does not highlight the most important species and subspecies of the country. The list of Bahamian threatened species presented by the CSA (Table 1, page 22) comes mostly from the Bahamas 4th Report on Biodiversity[34] and includes several species that are very common globally and even in Bahamas, such as American Kestrel (*Falco sparverius*), Barn Owl (Tyto alba), Red-tailed Hawk (*Buteo jamaicensis*), among others. At the same time, this list fails to include important Bahamian species like the emblematic and endemic Bamahian Hutia (*Geocapromys ingrahamil*)[35], threatened mostly by invasive alien predators and persisting in just a few islands (the CSA mentions the species very briefly in page 21). A similar case is the endemic Bahamian Oriole (*Icterus northropi*) whose decline is mostly due to IAS (not included in the table and not mentioned in the text). The confusion arises because this information comes from the Fourth National Report on Biodiversity which is mistakenly using the CITES appendixes as if they were red lists and have conservation status. According to the IUCN Red List, Bahamas is home to six threatened mammals and seven threatened bird species, which are either year-round residents or seasonal migrants.

  With regards to IAS, the CSA uses significant portions of the information contained in the 2013 NISS but fails to correct some issues with that information or provide new perspectives about the impact of IAS on endemic Bahamian biodiversity. For instance, there are three endemic subspecies of the Acklins Iguana, each one of them existing in one or just very few islands: *Cyclura rileyi nuchalis* (EN*), C.r. cristata* (CR) and *C.r. rileyi* (CR[36]). In all cases, by far the single most impacting threat are IAS. Still, there is no consideration of how important it is to consider eradicating invasive alien predators from islands where populations of these subspecies still exist.
  Rating: MU

- Dominican Republic:
  The content structure of the Dominican Republic CSA is adequate and similar to the Bahamian CSA. The document acknowledges that IAS are present in the majority of protected areas of the country. In fact, the CSA reports that 24 of the 100 worst invasive species have been reported for the country. Probably, the list of invasive alien plants that is presented represents only a fraction of the invasive alien plants already in Hispaniola and its offshore islands (this is a hypothesis that needs to be confirmed). The CSA presents information about Governmental expenditure on controlling agriculture pests, including the fly *Bemisia tabaci* and, in cocoa and coffee areas, the Brown Rat (*R. norvegicus*). The cost is in the order of US$630,000/year. The 'Prevention' chapter contains a concise and seemingly complete legal analysis (page 32 and subsequent). The CSA fails to elaborate at adequate level on IAS pathways (there are just a few comments but no analysis). The document provides the necessary information about IAS in the off shore islands of Dominican Republic but falls short in explaining why or how these IAS are impacting the native biodiversity (perhaps clear to a technician but not necessarily to all professionals). It would have been beneficial if the important vertebrates and plants, especially those threatened by IAS, could have been

[34] Prepared by the BEST Commission in 2011 (see BEST Commission 2011 in references)
[35] See IUCN Red List: http://www.iucnredlist.org/details/9002/0
[36] As per IUCN Red List, the conservation status are: CR= critically endangered; EN= endangered; VU= vulnerable.

systematized in tables. Total numbers presented for amphibians and reptiles do not coincide with on-line databases for these groups[37] , neither the numbers presented for threatened species coincide with those presented by the IUCN Red List. Similarly, it would have been adequate to provide the list of IAS in tables. The document is very easy to read and understand by any person with high school education, using a style that is similar to that of the NISS.
Rating: MS

- Jamaica:
  The Jamaica CSA was produced together and simultaneously with the NISS, by the same consultant. It has already been evaluated in # 112, Output 1.2.
  Rating: S

- Saint Lucia:
  The Saint Lucia's CSA has a different structure but a very good one in terms of the flow of information and readability. One important information that the document presents concerns IAS still not present in Saint Lucia but present in nearby Caribbean countries, which makes a call for tightening prevention measures (it still includes the Lionfish as its completion took place nearly a year before the first sighting of Lionfish in Saint Lucia). Rightly, the document presents the 'Important Bird Areas (IBAs)', the associated endemic birds that trigger them, and the IAS affecting biodiversity in those IBAs. The document is extremely complete and in some cases goes to deep details, for example when describing facilities at the airports or how Saint Lucia prepared for the Cricket Council World Cup in 2006. Still, the document fails to include two out of the five vertebrate threatened species that the IUCN Red List mentions for Saint Lucia and which are threatened by IAS: the Forest Thrush (*Turdus lherminieri*) and the Rough-scale Worm Lizard (*Gymnophthalmus pleii*). Importantly, the document recognizes the presence of monkeys in Saint Lucia (mentions it three times) but does not elaborate on the extreme danger that a potential population explosion of invasive monkeys may represent (as learned from other countries were invasive monkeys are present).

  The CSA does not provide a brief list of IAS databases or web sites that contain or may contain information about IAS in Saint Lucia under the assumption that the *"informed readers' should already know it"* . At a moment the document gets into complex philosophic-scientific discussion related to whether or not a new species arriving to Saint Lucia should be controlled or not if it comes 'naturally', since natural evolution is dynamic and normally involves the replacement of species (in islands with the best biosecurity systems, a standard conservative/preemptive approach is taken to prevent a potential invasion).
  Rating: S

L.L.	Critical Situational Analyzes (CSA) should represent the start point for countries to continue managing IAS sectorial information in a systematic way. As new information is generated, there is the potential that sections of existing CSA become outdated too quickly and therefore those documents should be 'living documents', easily updatable.
R	Participant countries and their NEAs should put in place mechanisms to track and monitor IAS occurrences and impacts in their countries, and use that information to continuously update the CSA and to keep regional and/or global databases updated.

- Trinidad and Tobago:
  This country's CSA departs from what seems to have been the informational structure of the other countries. It is a very short document, very concise and goes to the point but without providing any major amount of information to sustain its statements or recommendations. Very easy to read and understand, as many other documents produced under MTIASIC for Trinidad and Tobago, it still focuses significantly on agricultural pests without going into the problems that IAS represent for biodiversity conservation. E.g., the two IAS tables presented by the CSA are "APPENDIX 1: REGULATED PESTS FOR TRINIDAD AND TOBAGO" (all agricultural pests) and "Appendix 4: Regulated Animal Diseases for Trinidad and Tobago". Trinidad and Tobago islands are home to a huge populations of the most threatening invasive predators: cats, dogs,

[37] See Caribherp, Amphibians and reptiles of Caribbean Islands: http://www.caribherp.org/index.php?is=West_Indies&so=class, ord, subord, family, species&vw=y&dd=y&mob=<?=$mob?>

Indian Mongoose, mice, black rat, brown rat, etc. The Threatened island Database (TIB)[38] indicates 11 IAS (vertebrates) for Trinidad and 8 for Tobago. The CSA does not mention any of them.

Different from CSAs for all other countries, this document does not provide any insight into what is the general current status of biodiversity in the country, especially those species threatened by IAS. For instance, the Olive Ridley Turtle (*Lepidochelys olivacea*) nests in both Trinidad and Tobago and one of the main threats during nesting season and subsequent hatching period are invasive predators (Cats, mongoose, dog, etc). Another important species in the country, which is threatened by IAS, is the De Urich's Eastern Toad (*Pristimantis urichi*). Importantly, there is no consideration about what is known or should be known about IAS and native biodiversity in the nearly 37 islets and major rocks that belong to the country, many of which used to harbour breeding colonies of important seabirds. In the case of Little Tobago Island, it is home to Vulnerable Bloody Bay Poison Frog (*Mannophryne almonae*), which is threatened by IAS.
Rating: MU

- Best Practice Guidelines:
  While there was no formal publication with the phrase "best practice guidelines" in the title, this TE agrees with the perspective presented in the 1st draft of the project's final report prepared by the REA, CABI.[39] At regional level, the REA has produced or been involved in producing several documents that include sufficient information on best practices. A good example is the 'Stop the Invasion of Alien Species', produced in 2012. Another example could be the "Summary of Methods used in the Lionfish Population Control Experiment"[40] . There are many similar examples generated within the project. Going further into producing a fully edited best practice guidelines book would have consumed exceedingly big amounts of resources and time that the project was not in the position to afford (because of issues already commented: small budget, over ambitious number of activities, staff overstretched, etc). It is however very important that all these products are uploaded to CIASNET.org.
  Rating: S

OUTPUT RATING: MS

L.L.	In the case of MTIASIC, the CSA and NISS were conceived as two different products belonging to two different outputs. CSAs provide the essential basis for the preparation of national strategies.
R	Participant countries and thei NEAs should consider merging their CSAs with the NISS when the need comes for an updated version of either one. At the same time, CSAs should be considered as integral part national strategies and not as separate documents/products, and ensure they are prepared in sequence by the same team.

L.L.	There are major gaps of information in the CSAs for some countries, even in many cases significant amounts of good information exists and is relatively available from public sources. The CSA represent a base from where countries can build up their information capacity and fill any existing gaps.
R	Countries, through the agency leading the work on IAS, should explore cooperative relationships with NGOs and academia for collecting and organizing readily available information for IAS priority setting exercises related to biodiversity conservation.

L.L.	Work on IAS, as demonstrated in MTIASIC, requires significant amounts of good quality information, normally available through up-to-date on-line databases. The more information is put into those databases, the stronger their contributions will be to IAS projects. IAS project design should be such

[38] See: TIB: http://tib.islandconservation.org/
[39] CABI: FINAL REPORT: Mitigating the Threats of Invasive Alien Species in the Insular Caribbean, Version 31 May 2014.
[40] Smith, Nicola. 2013. Summary of Methods used in the Lionfish Population Control Experiment. Department of Marine Resources, Bahamas. White paper. 24 pp.

	that information generated could be easily contributed to on-line databases such as those from IUCN invasive species group (http://www.issg.org/index.html), the GIASI Partnership Gateway (http://giasipartnership.myspecies.info/), CABI's compendium (http://www.cabi.org/isc), the "Threatened Island Biodiversity Database (TIB)" (http://tib.islandconservation.org/) and the 'Eradication Database (DIISE)' (http://diise.islandconservation.org/), among others.

L.L.	MTIASIC generated many technical products of high value: NISS, CSA, KAP assessments, IAS susceptibility studies, native species distribution studies, IAS emergency plans and national response plans, among others. Some of these products were explicit outputs or were indicated in the project's logframe but other products were not necessarily made explicit.
R	Project executing partners should upload to CIASNET all technical products with content and structure that make them citable or useful technical reports, plans or strategies. For products that seem still in draft version, use a 'draft' watermark to denote that but share it nonetheless.

121. Output 3.2. Pilot findings, existing and externally funded IAS-related research at national and regional levels documented:

There were two main indicators for measuring success of this output: i) completion and dissemination of the Lionfish regional strategy and ii) stakeholders understand key findings and lessons learned from pilot projects. The Lionfish Caribbean strategy was completed in 2013 with significant input from MTIASIC: the RC and pilot project leads from Bahamas and Jamaica participated in the preparation of the strategy. In the first few months since the completion of the strategy, major steps have been taking across the wider Caribbean for its implementation. It is not possible to attribute the success that the Lionfish strategy is gaining to the MTIASIC Project but certainly, without doubts, this project played an important role in successfully disseminating the strategy. Through in-country interviews, it came clear that findings from the pilot projects have been reaching national authorities and even the general public, from National Focal Points to GEF/CBD to taxi drivers (all drivers of taxis used during the country visits to Saint Lucia, Jamaica and Bahamas new about Lionfish and the campaign). If there is a major, game changer outcome of the MTIASIC Project it has been the capacity of the NEAs and their partners to disseminate pilot project findings as well as information on IAS. The **"Eat it to Beat it"** slogan, crafted in Jamaica, has already transcended the boundaries of its original country and is being used across the WCR. The Outcomes being leveraged by this output are good examples of how important it is that small projects, with limited funding and overstretched staff, be strategic in fertilizing the grounds for encouraging others to prepare needed products, and support them without depleting its own financial resources.

OUTPUT RATING: HS

122. Output 3.3. Electronic networking systems, including linkages to GISP, GISIN and IABIN established:

CIASNET.org web site is running and becoming a very good source of documents, IAS management plans and strategies. During the weeks taken for the preparation of this TE, improvements continue to be evident in the web page both in its functionality as well as in the diversity and amount of IAS documents. At the same time, the web page is starting to suffer from some of the common problems faced by many similar web page: posts become old as if there was nothing new to report on. Another issue that may signal concerns is the fact that the number of experts registered to the web page is very small, less than 20, and apparently it has not changed during the past 2 months. Maintaining a functional web page is difficult and costly. Some important sections in CIASNET may need to be revised or even eliminated; e.g., the section on IAS invading the Caribbean only contains the IAS selected for the MTIASIC pilot project whereas there are a few hundred more (http://www.ciasnet.org/category/caribbean-ias-species/). This comment is not suggesting that CIASNET should become an IAS data base. It may be better to re-direct users to other online databases. CABI will continue running CIASNET after the MTIASIC project and the web page is intended to be permanent. It would be very advantageous to monitor CIASNET users and conduct periodic surveys to improve it.

The Carib_IAS_Threat e-List is a 'Yahoo-based Group' established in 2003. It has revamped its existence during the time of the MTIASIC implementation. Without suggesting a causal relationship, the Group Administrator indicates that *"the picture is very clear: before MTIASIC FSP phase, 0.76 new members signed up per month; after the start of FSP, this figure was 1.61".* Currently the list has around 265 members, of which nearly 40% are Caribbean islands,

40% Caribbean continental countries, and the other 20% form places as distant as Alaska, Australia and New Zealand. Given the Yahoo Groups capabilities, this group can serve as depository of files and it already has some good documents publicly available. Carib_IAS_Threat distributes a few emails and posting every day.

Carib_IAS_Threat will not have the capacities and power of a full site web page like CIASNET. By the same token, membership in Carib_IAS_Threat is orders of magnitude bigger than experts registered in CIASNET and seems to be far more dynamic.

OUTPUT RATING: S

L.L.	As it is becoming evident in CIASNT.org, news posts are becoming old and the registered experts continue being just a few. Maintaining good web pages is costly and requires dedicated staff, funds and contributors. Nice looking web pages pop up frequently and many disappear after just very few years. At the same time, building on-line databases and tools is even more expensive.
R	CIASNET.org must avoid duplicating efforts by other web pages and on-line databases (recommendation that also applies to any new project web page launched through GEF/UNEP projects). On the contrary, CIASNET should become the "PORTAL" to go to when looking for the best connection to IAS and island biodiversity databases, something far cheaper and badly needed. The section on Caribbean IAS in CIASNET.org should be a nice and dynamic portal connecting to the most important on-line databases such as IUCN invasive species group (http://www.issg.org/index.html), the GIASI Partnership Gateway http://giasipartnership.myspecies.info/), CABI's compendium (http://www.cabi.org/isc), the "Threatened Island Biodiversity Database (TIB)" (http://tib.islandconservation.org/) and the 'Eradication Database (DIISE)' (http://diise.islandconservation.org/), among others.

R	CIASNET and Carib_IAS_Threat should explore more interconnected collaboration. E.g., messages being distributed through CIAS_IAS_Threat could appear in a little window in CIASNET. This web page should allow to be signed in to Caribe_IAS_Threat.

123. Output 3.4. Public communications media & measures developed:

As commented before, increasing stakeholder and public awareness about IAS has been one of the greatest successes of the MTIASIC project. However, statistically documenting change as suggested by the Logframe is very difficult and costly, and probably the time span of the project would not have allowed for such work. Good baseline surveys and assessment were conducted in Jamaica[41] and Saint Lucia[42], and follow up research would allow to determine whether the suggested 20% has been reached. According to interviews with the National Focal Point to CBD and the Operational GEF Focal Points in Jamaica, the success of the project in raising awareness, both among the general public as well as among governmental officers, was 'gigantic'. The Lionfish campaign was a total success, as witnessed during a public ceremony with local stakeholders and the Environment Minister enjoying his Lionfish platter. A very similar opinion was provided by the Director of the BEST Commission and Operational Focal Point in Bahamas. Also, in the Eastern side of the Caribbean, Saint Lucia's final project report indicates that "The general public in Saint Lucia was 26% more aware of IAS; this exceeds expectations. Less than 1% of the population had heard of the lionfish prior to the project. At project end, 72% had heard about it and nearly a quarter of the population regarded it as the most damaging IAS in Saint Lucia". In Saint Lucia, several organizations joined forces on working on IAS, and particular mention is deserved by Media Impact Plc. In this country an environmental soap opera *Callaloo* was produced and aired by radio to 15 Caribbean countries: episode 117 was dedicated to Lionfish preparation. Moreover, two IAS-specific, cutting-edge interactive multimedia touch-screen games are now available at the *Our Planet Centre*: Invades Game and Save the Saint Lucia Iguana Game. In the case of Trinidad and Tobago, a significant number of outreach and information dissemination products were prepared and distributed as recognized in some news article (the pilot

[41] See in references: Social Development Commission (2011) and Urban development Corporation (2013)
[42] See in references: Krauss (2010)

project about increasing awareness on marine IAS will be discussed in subsequent sections since this pilot project did not reach a 50% implementation).

OUTPUT RATING: HS

124. Output 4.1. National capacity to prevent biological invasions strengthened (Trinidad & Tobago, Saint Lucia):

This output includes three pilot project in two countries. Since significant space has already been spent in Paragraph 69, to describe the pilot projects and changes introduced to them, this section will only contain brief description of those key features that may have not been described before.

4.1.1.- Pilot Project Saint Lucia: "Protecting Saint Lucia's Biodiversity from Invasive Alien Species in the Maria Islands Nature Reserve":
This pilot project has been a joint effort between the Forestry Department and the Saint Lucia National Trust (SLNT). The objective of keeping the off shore islands IAS free has been accomplished so far and, given the protocols and monitoring mechanisms that the project has help develop, these islands should continue being free of IAS. Maria Major Island remains as one of the most important islands for conservation of endemic reptiles among the entire Eastern Caribbean States if not the most important. Significant work has been conducted in Maria Major island for monitoring of the Saint Lucia Racer (*Liophis ornatus*) including a 'Field Work Guidelines'[43]. Additionally, management plans were prepare for Dennery Island and Praslin Island[44]. During a TE field visit to Maria Major Island, this evaluator was able to witness the biosecurity protocols in place to prevent the arrival of IAS to the island. They were adequate and staffers from the SLNT manage visits adequately (the few that actually occur for biosecurity reasons).
Rating: HS

4.1.2.- Pilot Project Trinidad and Tobago 1: Increased ability of stakeholders to detect and report occurrences of Frosty Pod Rot (FPR) for all cocoa growing areas of T and T (6,900ha):
A very important project to safeguard key agrosystems for the local economy as well as for migratory bird species and native biodiversity, this project has accomplished all its objectives. A group of nine technicians were trained in Costa Rica on different aspect related to the Frosty Pod Rot (RPR) in 2010, with subsequent training of local technicians in four different opportunities during MTIASIC implementation (2010, 2013 and 2014). A telephone hotline was established for producers to inform of FPR detection. Detection surveys were conducted across the entire cultivation area in both Trinidad and Tobago, and a full report was produced. Last and very important, an "Emergency Action Plan for the Incursion of Frosty Pod Rot (Moniliophthora roreri) of Cocoa in Trinidad & Tobago" is being finalized. Technicians working on the project did not realize nor had information about the importance of Cocoa plantations for the maintenance of migratory bird species and local biodiversity. To an extent, the project was taken as an agriculture 'pest' prevention initiative instead of a more integrated project with a real biodiversity component (a fact that should not diminish its achievements and impacts, and its importance for biodiversity).
Rating: S

4.1.3.- Pilot Project Trinidad and Tobago 2: Enhanced national capacity to prevent biological invasion in fresh water and marine ecosystems:
This pilot project was a new pilot included in the MTIASIC Project once the Caulerpa pilot was eliminated (this situation has already been described in Paragraph 56). It started late not only because of its late inclusion in MTIASIC but also because of delays in having the agreement between Trinidad and Tobago and the REA in place. In spite of having produced good quality outreach material and of the enthusiasm of the staffers (it was collaboration between the Ministry of Food Production and the Institute of Marine Affairs-IMA), by the end of April 2014 the project had only reached 50% implementation.
Rating: U

OUTPUT RATING: S

[43] In references see: Ross and Williams (2011), Morton (2011) and Ross and Daltry (2012).
[44] See Saint Lucia National Trust and Forestry Department (2012a,b).

125. Output 5.1. Populations of invasive animals and plants (Dominican Republic and Jamaica) under control and management:

5.1.1.- Pilot Project Dominican Republic: Eradication of alien vertebrate predators and herbivores from Isla Cabritos in Lago Enriquillo:
As commented before, Cabritos island in Lago Enriquillo NP is home to a breeding population of the critically endangered (CR) Ricord's Iguana (*Cyclura ricordi*) and the Vulnerable (VU) Rhinocerus Iguana (*Cyclura cornuda*), in addition to other globally important species. Cabritos had been invaded by goats, donkeys, cats and rats, all of which threatened the long term survival of these species. There were two different approaches proposed for conducting the full eradication of cats and donkeys from Cabritos Island. On one side, there was an aerial hunting proposal using helicopters. On the other side, officers from the Environment Ministry felt that a better approach would be to remove the donkeys alive through a community-based project. Fearing that not having the local community participating in the eradication and benefiting from it may lead to conflicts locally or even nationally, the eradication in Cabritos started using this second approach. Removal activities advanced well and the local crew was able to remove 99 donkeys and 31 cats. Later on, as donkey numbers decreased and it started to be more difficult and less profitable to catch the donkeys, the methodology was changed. At that moment, a significant portion of the funds had already been spent. Island Conservation started to collaborate with the Environment Ministry for this 'second phase' of the project, removing by a combination of traps and hunting a total of 34 donkeys and 165 cats. Unfortunately, during this phase of the project, a small cattle herd of 30 to 50 animals was discovered in Cabritos. MTIASIC funds for Cabritos were depleted. However, the interest and commitment of the Environment Ministry to complete the eradication are still there, and project partner Island Conservation is working actively with this agency to help prepare adequate plans, realistic budgets and fundraising proposals. Although donkeys and cats were not eradicated during the life of MTIASIC, due basically to burning financial resources during the initial phase of the IAS learning curve, the project continues and there is little doubt that it will be completed satisfactorily. Furthermore, several local people have been well trained for participating in this type of eradication projects. All agencies and NGOs participating in this project have learned important socio-political lessons. Plans are also continuing for eradication in Alto Velo Island. MTIASIC initiated a process in Dominican Republic that will continue long after MTIASIC.
Rating: S

L.L.	The role played by communities should never be underestimated, including in IAS control and eradication projects. Community leaders can make a project succeed or be stuck and not implemented. Engaging the community, as in the case of Cabritos, may lead to better understanding of what is being pursued and/or given community 'clearance' for the further eradication actions to proceed.

L.L.	In IAS management projects, participant countries and their NEAs should consider including community members during the initial phases of IAS control/eradication, whenever technically possible and as long as the project objectives are not put at risk. Even if it takes a little longer or cost a little more, it may be worth considering that option as it contributes to create connections with local communities, may generate some temporal employment and may gain supporters for long term conservation (preventing potential reinvasions).

5.1.2. Pilot Project Jamaica: Monitoring and Control of Vertebrate Predators in the last remaining habitat of the Jamaican Iguana (*Cyclura collie*) in the Portland Bight Protected Area:
As commented in Paragraph 58, this project went through adaptive changes due to major limitations for implementation given the landownership over the Goat Islands. However, since the beginning, the project also included supporting invasive predator control in the Hellshire Hills, the only breeding area of the Jamaica Iguana. After January 2012, all activities were concentrated there. The project was implemented jointly and mostly through the University of West Indies, Mona Campus. Some of the highlights of the work conducted in Hellshire for conservation of the Jamaican Iguana are:

- Increasing the trapping effort by adding over 400 tramps,

- Removal of 514 predators (mongoose, wild pigs, wild cats and wild dogs) from the main nesting site,
- Female Iguana population increase of nearly 200%,
- Inside the protected nesting area, surrounded by 'control' traps, the survival rate for iguana hatchlings is between 80 and 90%, whereas outside it is 0%,
- Preparation of new nesting site to alleviate the problem of overcrowding in current site
- Maintaining support to the Hope Zoo's captive raising program for the iguana
- In 2013, 52 iguanas were release in Hellshire Hill, the largest repatriation in the project history.

As any predator control program, managing alien predators in the Hellshire is very expensive. As NEA, NEPA is aware of this circumstance but believes the National Government will maintain its allocation of resources for the program. NEPA should consider exploring whether a predator proof fence could diminish the program costs while increasing the iguana population even further. During interviews with members of the iguana pilot project team, there was scepticism about whether a fence would work. There are also concerns that the government will try to cut funding. Importantly, the euthanizing of the captured predators has received no opposition or criticism from animal rights groups.
Rating: S

OUTPUT RATING: HS

L.L.	Predator control projects are very expensive and may need to be continued permanently if the conservation target species is to be saved from extinction. For the conservation of the Jamaican Iguana, the eradication of alien predators from main island Jamaica is not feasible, therefore leaving control as the only alternative. New options may be needed. The same applies to conservation of high profile species such as the endangered (EN) Black-capped Petrel in Dominican Republic or the Saint Lucia Iguana in Saint Lucia.
R	NEPA should explore the effectiveness and feasibility of other/new alternatives including predator proof fences either in Hellshire Hills or in 'select small peninsulas' along the coast that could become part of the Jamaican Iguana range. Technical support from cooperating governments (USA, New Zealand, and Australia) and international NGOs should also be explored.

126. **Output** 5.2 Pilot Project Saint Lucia: "Protection of Saint Lucia's Unique Biodiversity through comparison of cost-effectiveness of different control methods of Invasive Alien Iguanas":

Leveraged by the MTIASIC NC in Saint Lucia, recent mitochondrial DNA analysis conducted in France has set the divergence between the Saint Lucia Iguana and the Green Alien Iguana (Iguana iguana) at least at 10% with estimate divergence age of 5My. This means that the Saint Lucia Iguana is at least a subspecies of *I. iguana* and probably a different species (taxonomy of the Iguana genus continues being unclear). The Iguana Pilot Project has been discussed previously in Chapter III, section C. By adopting the new pilot objectives, the project team conducted sustained field work trying to understand the behavior of the Green Iguana and whether it has preferences for different plant species. Additionally, the team tried to learn more about animal traits that could help detect the iguanas (feeding evidences, feces, scratch marks, etc). Several trials aimed at identifying the best methods to detect Green Iguana in the field were conducted. The team also tried different baits and trap types. Another trial was to use trained dogs. Dogs seem to be able to detect iguanas in the canopy at least 8 ft above ground. Another activity conducted successfully by the pilot team was the creation of the 'Iguana Alert Network'. Thirty people agreed to participate, twenty-one of which are at the border of the known distribution range of the alien iguana. The recommendation of the Iguana Team is to continue the 'Lyanola' Pride Campaign (Lyanola is the creole name of the Saint Lucia Iguana) and finalize an emergency plan in case the populations of alien iguana and Saint Lucia Iguana come in contact. The team is exploring fundraising opportunities. There seemed to be a lack of clarity among the iguana team members about the issue of eradication methods and animal rights. There seems to also exist some frustration because of the difficulties in finding, training and keeping field personnel.

OUTPUT RATING: MS

L.L.	As in the case of the alien green iguana in Saint Lucia, finding solutions to methodological problems could be very difficult and ethical issues may also arise, like what are the 'acceptable' eradication methods vis-a-vis animal rights groups. Multi-year IAS management projects will benefit from having adequate resources for south-south and triangular exchanges. Since solutions may have been already identified and tested by other countries, it is desirable that practitioners participating in pilot projects have the opportunity to visit other SIDS or countries with islands with substantial experience on IAS.

127. Output 5.3. Marine IAS controlled and managed (Bahamas, Jamaica, Trinidad & Tobago):

5.3.1.- Pilot Project Bahamas: A Local and Regional Research, Training and Management Approach to the Lionfish Invasion in The Bahamas:
The Lionfish project in the Bahamas has been a scientific and outreach success, as amply recognized by authorities and the general public. The very dedicated team developed several high quality protocols and documents including a "National Lionfish Response Plan", safe capture and handling guidelines and brochure, and a methods manual, among others. The pilot project leader participated as co-author in the preparation of the regional Lionfish strategy. Bahamas has generated significant information about management of Lionfish and how to maintain local densities low through harvesting the species (speer-fishing). Information is being made public through publications in peer reviewed journals and also under white report formats. Those who were working in this pilot project are becoming regional leaders on Lionfish and marine invasive species.
Rating: HS

5.3.2.- Pilot Project Jamaica: Management & Control of the Marine Invasive Species, *Pterois volitans* (Lionfish) to prevent the impending population explosion in the Caribbean Sea:
Very similar to its counterpart in the Bahamas, with which activities were coordinated, this project has also made strides both in the scientific realm and with local fisherfolks communities as well. Even the Environment Minister, personally, has participated in public testing of Lionfish. The now famous slogan "Eat it to beat it!" was coined by the pilot team in Jamaica and from it exported regionally, even to the US. Comments about the appreciation of the project and its reaches by the Primary National Focal Point to CBD and the National Operational Focal to GEF were already highlighted in previous sections. As in the Bahamas, several methodologies have been tested trying to find the most cost-efficient way to capture Lionfish. Most recently, UWI Mona has been developing a "passive trapping mechanism using a modified Antillean Z trap (fish pot) using breadfruit and pickled mackerel as the most effective bait". Scientist from UWI, Mona together with colleagues from Bahamas are leading the field in trials to determine how to bring down Lionfish population densities in order to protect the community of native fish. They have reported localize reduction of Lionfish density in the order of 60% (though this is temporary, as to be expected)
Rating: HS

5.3.3.- Pilot Project Trinidad and Tobago: Asian Green Mussel (Perna viridis): Effective method for control & management identified & tested. Economic impact of green mussel determined. Improvement in community structure associated with green mussel at pilot sites:
The Green Mussel was first recorded in Trinidad in 1990 and nine years later was recorded in Florida, USA. This pilot project studied different methods for controlling the species. Given that the presence of the species at ports and harbor facilities will permit its continued spread, a workshop with stakeholders of the marine sector was conducted. Importantly, work coordinated with nine different firms affected by *Perna viridis* allowed to compare control costs for Green Mussel. Findings of the study reconfirm the need to work at regional level if marine invasive species are going to be brought under adequate management. As with the FPR pilot project, also in Trinidad and Tobago, outreach material was prepared and distributed.
Rating: S

OUTPUT RATING: HS

128. Output 5.4. Protection measures for sites of high conservation value (Jamaica, Trinidad & Tobago):

5.4.1.- Pilot Project Jamaica: Control and Management of invasive plants in the Lower Black River Morass (RAMSAR Site) to prevent the further habitat loss:
Previously, in Chapter III, section C, changes to this pilot project were described. According to the pilot project leader, this activity started late due to delays in obtaining the necessary field equipment. The project team was able to establish eradication methodologies for the 'Paper bark tree' (*Melaleuca quinquenervia*) and tested it successfully in small patches in the lower Black River Morass (where the three had been discovered and was still behaving as an incipient invasion). The team had originally planned to develop methodologies to eradicate an alien ginger *(Alpinia allughas)* but multiple circumstances, including financial limitations, prevented the work from fully developing. While the project only developed one of the two intended methodologies, there was significant learning and capacity building: this was the first time ever that work on alien invasive plants had been undertaken by the UWI group and in the region. They contributed significantly with matching funds from other donors including the MacArthur Foundation. Outreach work conducted by NEPA in the lower morass communities focused on the local schools, many of which participated in the project. Together with the Social Development Commission (SDC), NEPA developed summer camps, school expositions with the Saint Elizabeth Parish, community expositions sponsored by the 'Swamp Safari', a social marketing campaign to address behavioral changes toward the environment, among other activities. These activities have been well recognized by the local media (newspaper and radio). During the project closing ceremony held in Kingston, to which the evaluator had the opportunity to attend, between 30 and 40 community members and local leaders participated. Many of them were recognized with a diploma for their contributions to MTIASIC. The management plan for the Black River Proposed Protected Area was prepared under support from the Protected Areas Branch.
Rating: S

5.4.2.- Pilot Project Trinidad and Tobago: The Maintenance of the Native Biodiversity of the ESA – Nariva Swamp by managing IAS threats:
This pilot project was discussed 'in extenso' in Chapter III, Section C, given that it went through major changes. The IPSC decided that given the complexities of the original objectives set for the project, it was better to complete all inventories and preliminary activities of phase one and then bring the project to closure. This TE agrees that it was the right decision. Still, it has to be commented that the study on susceptibility of native palms to infestation by Red Palm Mite as well as the palm species inventories in Nariva Swamp are high quality studies. After the initial phase was concluded, samples of fungal pathogens observed in Nariva were sent to CABI UK to initiate research for biocontrol agents for the Red Palm Mite.
Rating: MS

129. The low rating of the two previous pilot project is the result of problems during project design. Both the Ginger as well as the Red Palm Mite are extremely difficult species to bring under management, if that is possible at all, given the extent of the invasion and the reproduction capacity of both species.

OUTPUT RATING: MS

R	Since some participant countries and their NEAs intend to follow with IAS projects after MTIASIC comes to a complete end, it is strongly recommended that before deciding to attempt control or eradication activities, a careful feasibility assessment should be undertaken to determine whether it is possible to control or eradicate the IAS. Subsequently, if this feasibility assessment shows positive, a more detailed eradication plan will be needed. In small islands with well-known IAS, it may possible that the feasibility assessment and the eradication plan are merged into a single document.

C. EFFECTIVENESS: ATTAINMENT OF PROJECT OBJECTIVES AND RESULTS

Achievement of Direct Outcomes

130. The project had mixed results in achieving the immediate outcomes resulting from the outputs. In pathway 1, once the NSC were formed, all countries were able to move forward with the preparation of their national invasive species strategies (NISS). Quality of the NISSs varied significantly as described in previous sections. Of the five country NISSs, three were completed at the end of year 2 and the beginning of year 3, while the two other were completed at the end of year 3 and in year 4. Effectiveness of the project was adequate but certainly the capacity to generate the products varied from country to country. It was also clear that the capacity of the NSCs and the NCs to supervise the quality of the NISSc differed significantly from country to country. A possible explanation is the fact that NCs and other project staffs were overwhelmed by the amount of work and continuously overstretched. In two different countries and for three different pilot projects, project staff/participants indicated that the amount of reports and administration work was becoming an impediment to advancing work in the pilots. If pilot project staffers are 'too' busy with administration work then NCs surely were even busier.

131. As indicated in the ToR of this TE, it is very important to discuss whether the work overload mentioned by several project participants had an effect in the effectiveness of the outputs to contribute to managing invasive species in the different pilot projects, a question that was brought up in the MtE. While work overload tends to have a negative impact on productivity, creativity and effectiveness, there were other factors that contributed far more to the limited results in some pilot projects:

    i. Inadequate selection of IAS to bring under control or to eradicate: Red Palm Mite, Wild Ginger in Black River, Green Iguana in Saint Lucia, Green Mussel, are all extremely difficult species for which there are major gaps in information and management experience. In addition, their invasions seem too advanced as to bring them under control, much less eradication;
    ii. Low budgets: this is an issue that has been discussed previously, both in the MtE as well as in this TE. It has had a big contribution to the results. E.g., low budgets have an effect in the capacity to reach out to the general public to create a critical mass that mobilizes the government to solve IAS issues. It may not be coincidental that in Bahamas, the country with the lowest budget of all, is where more uncertainty exists about sustainability of the project outcomes;
    iii. Lack of technical capacity in the participating countries;
    iv. Lack of adequate engagement of well-trained international experts.

132. Pathway 2 presents a very smooth progress from outputs to immediate outcomes and then up to Outcome 3b. The capacity of the NEAs and their NCs to make their cases about IAS and reach out to the communities and other stakeholders was evident. The most important input needed for the work was basic information and data. Early in the project, it would not have been possible to identify best practices. Assumptions and risks included under A&R 2 proved correct, particularly the willingness of media outlet to seize the opportunity and use the data. Outcome 3b has not yet been achieve at its fullest but countries will continue moving in that direction even without MTIASIC support.

133. Pathway 4 represents the quicker connection between outputs and outcomes. In fact, because of its own nature, the ToC diagram cannot represent the real dynamic of the process: long before the outputs were reached (e.g., a semifinal draft of the Regional strategy), increased regional cooperation had already been achieved as demonstrated by the traffic of emails and documents through Carib_IAS_Threat as well as the amount of information being uploaded to CIASNET. Regional cooperation is expected to continue to increase. Furthermore, the Carib_IAS_Threat network is already exchanging information with other thematic and regional networks, such as CaMPAM. Outcome 2 (regional strategy and coordination mechanisms) together with CIASNET (Outcome 3) are expected to move the countries toward the project objective and goal. As indicated before (paragraph 122), CIASNET will be a permanent web page managed by CABI.

ACHIEVEMENT OF DIRECT OUTCOMES RATINGS: S

Likelihood of impact

Table 12: Likelihood of Impacts using the ROtI Methodology

Outcomes	Comments	ROtI Grading
1- Increased national capacity to address potential risks posed to biodiversity of global significance from invasive alien species	All countries have increased significantly their capacity: all have NISS and CSA (though some of them have low evaluation rates). Furthermore, three of the countries have National ISWG backed up by executive resolutions, and Saint Lucia is in the process of approving a law to support IAS management and the ISWG. Bahamas has made verbal commitments to house the NISWH in the Environment Ministry.	BA+ (B as per some uncertainties still remaining with Saint Lucia; + given how the Dominican Republic NISWG responded during the Pine Weevil crisis).
2- Increased regional cooperation to reduce risk posed to biodiversity of global significance from invasive alien species	Regional cooperation started since the project's inception workshop, not only among MTIASIC participant countries but between those and the rest of the WCR. As originally predicted in the PPG and the ProDoc, the country composition of the project is helping to reach out across the entire WCR.	AA
3- Access to data and best practice established, and public awareness of IAS strengthened	CSAs will not only provide data to countries but will become levers to push countries towards better understandings of their IAS and how these affect biodiversity and economy. Even in the two cases in which CSAs received low ratings (Bahamas and Trinidad and Tobago) it is expected that these CSAs will be upgraded soon. Furthermore, with regards to region wide collaboration, if at the beginning of the project there were doubts about the cooperation and relationship with Overseas Territories in the Eastern Caribbean, these can be now put to rest as connections/cooperation among countries in the insular Caribbean continue to increase (this is witnessed every day in electronic communications!).	BA+ (B as per the current low rating of two CSAs; + given that communication and information exchange among countries keeps growing and is expected to continue doing so).
4- Increased capacity to strengthen prevention of new IAS introductions	This has been a highly successful Outcome. It is very difficult to predict future and whether or not the 'Frosty Pod Rot' will finally reach the cocoa plantations in Trinidad and Tobago, or whether invasive predators will arrive to Maria Major island. But, as far as it can be said, given the increase in local capacity and lessons learned through the project, both countries are moving toward a higher level in IAS management and in protecting their resources.	AA
5- Increased capacity to detect, respond, control and manage IAS impacting globally significant biodiversity	This outcome is a very difficult to analyze and rate: some of the best rated pilots fall here (Lionfish in Bahamas and Jamaica), some of the Pilots with the lower ratings (Nariva Swamp and Black River Morass) are also included here. And, a project that has not completed its IAS management objectives but is moving forward to become a game changer in the Caribbean, Cabritos Island, is also here. It is difficult to assess a pathway and a process when some outputs and preliminary outcomes were so limited. Still, Executing agencies (Governments) as well as people can learn from experiences with limited success.	BA (it would have been CC if rating was based solely on Nariva Swamp and Black River Morass; A as per gains with the Lionfish pilot in Bahamas and Jamaica, and soon in Cabritos with the eradication.

LIKELIHOOD OF IMPACT RATING: L

Achievement of Project Objective and Goal

134. Without any doubts, all MTIASIC participant countries are better off today, in terms of their capacity to deal with invasive alien species, than they were before the project. Clearly, if the project is helping to keep Maria Major Island free of IAS and, at the same time, contributes to control alien predators in Hellshire Hills so that the population of Jamaican Iguana keeps growing, then it is possible to say that the project is "mitigating the threat to local biodiversity and economy from IAS in the insular Caribbean, including terrestrial, freshwater, and marine ecosystems" and is also conserving 'the globally important ecosystems, species and genetic diversity within the insular Caribbean'. Can this be quantified? No. Can it be said that the project has conserved most of the ecosystems or mitigated the impact of most of the IAS? Obviously not. But there is no project that could do that either. As stated at the beginning of this TE

and previously said in the TE inception report, the objective statement of this project is enunciative and non-quantifiable making it very difficult to measure. The MtE also had problems in evaluating whether or how the objective was being attained.

135. Throughout the description of Outputs in the previous section, this TE has been using the updated logframe of the project and the indicators contained in it to provide detailed information about the project outputs and outcomes. No further detailed discussion of them will be made here as it would be duplicative.

136. The ToR for this TE poses the question of whether the design phase effectively used the resources available to ensure sound structure of the project. It seems it did not or not totally. As it has been said before, none of the organizations with experience on control or eradication of IAS (different than agricultural pests, on which many Caribbean countries have a history of financial investment and capacity creation) was engaged as project partner. E.g., it is easy to understand that the Caulerpa strain was found to be non-invasive after the project started. There are so many problems with the algae taxonomy that this should be no surprise. But, selecting Red Palm Mite as an eradication target was inadequate and this would have been easy to detect and prevent by IAS management specialists. When examining IAS control and eradication projects in different countries (USA, Canada, Mexico, Ecuador, Chile, Australia, New Zealand), the majority of them have enabling/planning phases of at least three or four years, often far more. These are countries with decades of experience, well trained personnel and financial resources for IAS management. The MTIASIC project, planned for four years and with limited financial resources and initial low capacity, selected extremely difficult and expensive IAS. Project documents show that the GEF's STAP review did not make any comments on that regards. This TE has already discussed similar issues in Paragraphs 54 and 55 (Section B, Chapter III). As said before, it should be highlighted that the combination of fast learning through project implementation, adaptive management (particularly after the MtE) as well as the willingness to learn and hard work of the national executing agencies allowed to overcome many (but not all) of the major limitations with which the project started. The UNEP's Task manager as well as the REA did a super job overcoming many obstacle faced during implementation, and they deserved to be recognized too. There are many great products coming out of the project, outcomes continue having impacts and countries are moving much faster than ever in the right direction. In many cases, biodiversity and economic benefits are becoming evident.

ACHIEVEMENT OF PROJECT OBJECTIVE AND GOAL RATING: S

D. SUSTAINABILITY AND REPLICATION

Socio-Political Sustainability

137. The degree at which the project sustainability is assured varies from country to country, and depends on many factors. By having the creation of the national ISWG as a specific output of the project, the project is increasing the likelihood of sustainability of the project's outcomes. Increased institutional diversity in the national ISWG should provide increased strength and sustainability. In that sense, as presented in Annex I, the Dominican Republic ISWG includes one international and two national NGOs, several academic institutions, the botanical garden and national museum of natural history, and several governmental agencies. Saint Lucia includes one international and one national NGOs as well as a local development, non-governmental corporation. Jamaica does not include NGOs but has a good representation from the academia and the natural history museum. It seems that the national ISWGs will count with sufficient strengths as to make MTIASIC outcomes sustainable.

138. As already indicated twice in this document, three out of five participant countries have ISWG backed up by resolutions or internal memoranda from the executive (Jamaica, Dominican Republic and Trinidad) while a fourth country has introduced an IAS specific bill to Parliament and is working for its approval (Saint Lucia). The last country, Bahamas, has assured that the ISWG will be based at the Ministry of Environment and Housing. Often, legislative processes take longer than the four years of an average project. What is important to measure then is the interest and willingness of leaders and the administration to continue moving in a direction that will result in adequate new laws and regulation. This seems to be the case for the five participant countries, recognizing that there are important differences in the progress they make.

139. Jamaica made important changes to its regulations on fisheries and protected areas to allow the take of Lionfish from areas that were previously no take zone. While not yet approved, a similar measure has been proposed in Bahamas. These are demonstration of political willingness to use tools and information developed by the MTIASIC project.

140. For many insular Caribbean countries, tourism represents a high portion of the national GDP. In spite of the several 'willingness to pay' studies conducted in the region that demonstrate that tourists are willing to pay an increased fee, most Caribbean leaders are fearful of such decision. Countries fear approving any law or increasing any fee that may result in decreased tourism. The notion that conserving biodiversity, from species to ecosystems to landscapes, is precisely protecting the most valuable tourism asset is something that has not been internalized yet by many Caribbean leaders. This fact represents a risk to MTIASIC but the best way to help overcome it is by developing a new initiative in the context of GEF 6, to continue strengthening the outcomes that resulted from MTIASIC. It is convenient to remember that, budget wise, MTIASIC was a small project after all.

141. Country ownership is excellent in Jamaica, Dominican Republic and Trinidad and Tobago (more on biodiversity conservation in the first two countries and biased toward agricultural pests on the last country), and adequate Saint Lucia and Bahamas.

142. An important conclusion must be drawn from the 'implementation arrangements' discussed in paragraph 78: comparing the three contractual modalities used for 'National Coordinators', it seems that the best option for long-term sustainability of the project's outcomes is to have NCs that are full time, full benefit officers of the NEAs and are either delegated or given administrative leave to become NC (option iii in paragraph 78). In the first two cases presented in paragraph 78 (options i and ii), as it has already happened after MTIASIC activities ceased, the NCs stopped their relationship with the NEAs. In those cases, the training investment is lost and capacities acquired by the NC no longer reside at the NEA. In the third case, the NC remains with the NEA meaning that the training and capacities acquired by this person remain in place with the Government.

RATING: HL

Financial Resources

143. As it is often the case, financial resources always have an important role in ensuring sustainability of project outcomes. The low budget of the project has already been discussed in this TE. A major financial risk is that Governments cannot or are not willing to allocate the necessary funds to support the minimal institutional structure to implement the NISS. Fortunately, it seems highly plausible that the governments of at least Dominican Republic, Jamaica and Trinidad and Tobago will allocate funds for IAS control and management; this perspective was confirmed during interviews with MTIASIC Project Directors (all of them senior government officers) as well as with National Focal Points and agency heads.

    It is important to highlight, as indicated by project's partners during the course of the evaluation, that the MTIASIC project cycle overlapped *'with the international recession and the challenges all Caribbean SIDS faced with tight economic conditions, employment reduction, downturns in government income, formal or informal IMF re-structuring programs for some.'* Actually, some participant countries suffered economic contractions of up to 3.5% right when the project was starting (-3.5% for Bahamas and -3% or Jamaica) while only one participating country saw a simple economic slowdown. *'It is to the credit of governments that they stayed the course in the project.'*

144. The recently created Caribbean Biodiversity Fund, aimed at 'providing sustainable flow of funds to support activities that contribute substantially to the conservation, protection and maintenance of biodiversity within the national protected areas systems or any other areas of environmental significance of its participating countries', may result in an important source of funds to cover IAS work in protected areas. The Bahamas, Saint Lucia and Jamaica are members to the Caribbean Biodiversity Fund. Recently, UNEP implemented a mid-sized project to support the development of the Fund. The GEF is an important donor to this initiative and already US$31 million have been collected for the fund principal (goal is US$42 million).

145. For MTIASIC participant countries, the GEF 6 replenishment represents an opportunity to deepen work on biodiversity conservation through IAS management (including the development of long-term financial mechanisms to

sustain work on IAS). The fact that these countries are SIDS increases prioritize them to receive increased financial resources. For the first time, there is specific wording in the replenishment documents about necessary investments on IAS management in SIDS. Particularly, Jamaica's GEF Operational Focal Point indicated the country's interest in evaluating its GEF portfolio.

RATING: L

Institutional Framework

146. During the implementation of MTIASIC, the Dominican Republic Environment Ministry was created while the environmental functions of the Trinidad and Tobago Government were strengthened through the creation of the Ministry of Environment and Water Resources (formerly, Environment was together with Housing in a Ministry of Housing and Environment). The new Ministries should be seen as a strong signals of the commitments that national governments are making toward environmental goals (Millennium Development Goals, CBD commitments, etc). While not an outcome of the MTIASIC Project, the new Ministries represent important opportunities to consolidate the project outcomes.

147. As already commented in previous sections, the recently created national ISWGs have been recognized by the governments of the three corresponding countries (Dominican Republic, Jamaica and Trinidad and Tobago). In the case of Dominican Republic, the ISWG will be led by the Department of Genetic Resources of the Biodiversity Directorate. In Jamaica, the ISWG will be managed by the Ecosystem Branch of the National Environmental and Planning Agency (NEPA). In Bahamas, it is expected, as per commitments made by senior authorities of the country, that the ISWG will be coordinated by the Environment Ministry.

148. New positions have been created for IAS coordinators at medium-senior level in Dominican Republic and Trinidad and Tobago (as per the recent Cabinet approved mechanism). In Jamaica, the head of NEPA's Ecosystem Branch will take this leading function. Having governmental officers with clearly identified functions for coordinating IAS actions in the country and leading the national ISWG provides stability to the outcomes gained by MTIASIC.

149. While there is still ample room for improvement in terms of environmental institutional framework, participant countries have the minimum necessary structures to maintain the outcomes of MTIASIC and increase their impacts.

150. To help ensure sustainability of the project outcomes, several regional training events were organized under MTIASIC. Some of the events were coupled with meetings of the IPSC. The table below provides a summary of these training events:

Table 13: Regional Training Event under MTIASIC

DATE	THEME	PLACE
2014, April	Workshop on 'IAS Policies, Strategies and Best Practices'	Trinidad
2013, April	Regional Aquatic Invasive Species Risk Assessment Training Course	Jamaica
2013, March	Economic Impact Assessment	Trinidad
2012, September	Social Marketing	Trinidad
2012 January	Use of the CABI Invasive Species Compendium	Cuba
2011, March	Legal tools to address IAS	Bahamas
2010, October	Pest Risk Assessment Tool	??? (not mentioned in any project report or document).
2010, October	Use of I3N Databases	Trinidad
2010	Enhancing Capacity to Measure Economic Impact of IAS	Trinidad

RATING: L

Environmental Sustainability

151. There are many environmental factors that can influence the sustainability of the project outcomes: major climatic events like Caribbean hurricanes and El Niño events, floating ocean garbage, floating vegetation coming from the Amazon and Orinoco rivers or local rivers in the major Caribbean islands, climate change, among others. All those factors are out of the management capacity of the NEAs or the countries' environment agencies. Therefore, the sustainability of outcomes will depend on the capacity of the agencies to be adaptive in pursuing their goals and in establishing mitigation measures. For Jamaica, the project produced a brochure about climate change and IAS, and the implications for biodiversity conservation.

152. Legal and accountability frameworks are still incipient in all countries but improving. Particularly, the IAS bill introduced for approval by the Saint Lucia Parliament will improve substantially accountability in that country in terms of IAS management and their impacts. The NEPA Act being discussed in Jamaica will also strengthen the legal framework in that country. It is also expected that as work by the national ISWGs continues new bills and regulations proposals will be brought to both the executive and legislative branches of the countries.

153. There are no negative impacts generated by the project outcomes. On the contrary, environmental consequences of project outputs and outcomes will be positive. However, it is highly recommended that as countries get deeper into managing and controlling IAS, particularly alien predators, the national ISWGs must start working on regulations to ensure that the use of toxicants for eradications with biodiversity conservation purposes is fully legal. Environmental compliance for using toxicants in eradication projects has been the single most difficult non-technical issue to manage when planning IAS control. National legislations and regulations were prepared without taking into consideration the need to implement IAS control and eradications in order to prevent extinctions.

154. Through the project, some of the countries prepared voluntary codes of conduct for different economic sectors: Tourism, trade, pets, etc. Particularly, Jamaica prepared a comprehensive "Pet Trade Pathway Toolkit for Jamaica. A Strategy and Action Plan for preventing pets from becoming invasive alien species". Saint Lucia prepared a "Voluntary Code of Conduct for Saint Lucia's Pet Sector (PS VCoC) with Special Reference to Invasive Alien Species (IAS)" through participatory workshops.

155. If countries were to maintain IAS at a low priority level, as it was prior to MTIASIC, then probably it would need to be concluded that project outcomes will be lost. However, given the renewed high priority that IAS are having in GEF 6 coupled with the soon adoption of the ABS Protocol, which will imply much wider inclusion of communities in sharing the benefits of biodiversity, it is highly probably that IAS will increase in importance across all countries.

RATING: L

Catalytic Role and Replication

156. One of the major achievements of the project has been training local people across several islands on how to use Lionfish as food. This is a great example of a catalytic change of perception and attitude achieved through MTIASIC supported activities. In addition, this activity brings in a high degree of replicability. Bahamas, Jamaica and Saint Lucia organized 'Festival and Lionfish Derbies', including fish tasting and cooking exhibitions. This very same approach is being replicated not only in some Eastern Caribbean islands but also in Mexico and Meso America, and even in the US with upcoming Lionfish Derby in Fort Lauderdale, Florida.

157. Potentially, two more activities with MTIASIC have a great catalytic potential in the short term. The Saint Lucia strategy to maintain off shore islands free of IAS for the conservation of endemic biodiversity has a very important catalytic potential. The second activity is the ongoing eradication in Cabritos Island and, hopefully, the upcoming eradication in Alto Velo. The joint work of Dominican Republic's Environment Ministry, Island Conservation, Grupo Jaragua and Hispaniola Ornithological Society will set precedents for future eradication projects in the Caribbean.

158. The project has been seen as of high catalytic and capacity building by all project directors. Indeed, during interview with the Dominican Republic's Project Director, who serves as National Biodiversity Director for the country, the case

was made in favor of a regional project because in spite of some language barriers, the catalytic and learning benefits outweigh any 'perceived' limitation.

159. The MTIASIC Project has made scientists from UWI Mona, Jamaica, and the Bahamas National Trust known to international levels thanks to the work done on Lionfish. Similarly, the Iguana Team from Saint Lucia is now playing a more important role regionally as exchanges and collaboration increase.

160. It is very important to highlight that during the MTIASC implementation period, marine IAS became of high priority for UWI-Mona and a laboratory is fully dedicated to this topic.

161. The project served as a good vehicle for disseminating lessons learned and information. Components 2 and 3 of the project were almost totally dedicated to these endeavors (though there was no formal plan beyond the long list of activities under the two components).

RATING: HS

E. EFFICIENCY

162. Table 14, next page, presents the project budget and expenses by year (prepared by the evaluator with yearly reports provided by the REA, since no final financial report has been produced yet). The table shows the disparities between planned expenses (yearly budget) against actual expenses. The MtE brought to the attention the low expenditure rate in the project. After the MtE, the expenditure rate increased significantly, varying from country to country. As noted, to December 31, 2013 over US$450,000 still remained unspent. According to the Regional Project Coordinator all remaining funds were spent during the first four months of 2014.

163. The low expenditure rate suggests a seemingly contradiction between statement regarding the low budget of the project and the reality that money was not being spent. Furthermore, there were occasions in which the IPSC authorized to move funds from one major budget item/country to another to help those activities in need of funds and with higher expenditure rates. While projects often take off slower than planned, another explanation for the low expenditure rate is the lack of experience and capacity in this type of project.

164. Low expenditure rate and inefficiencies noted in the project are mostly due to problems in its design (see Paragraphs 53 through 62). Not surprisingly, as per Table 14, years 1 and 2, with 50% and 25% lower expenditure rate than planned, demonstrate not only the take-off and learning periods but also the difficulties in implementing work with many IAS that were inappropriately selected. Increased expenditure efficiency in years 3 and 4 may be due to increased capacity and to adaptive changes to the pilot projects after the MtE. Still, by the end of 2013, there were nearly 17% of the total funds unspent which may be related to the late cancellation of the Alto Velo Pilot project (not spending funds) and the non-cancellation of the 'Awareness Creation on Marine IAS' (not spending funds either). Alto Velo was not spending funds at the necessary pace because its implementation was impossible given several limitations. Similarly, the 'Awareness Creation on Marine IAS' had a low expenditure rate due to insufficient planning of the project, lack of necessary coordination among executing partners and, probably, low priority among different participating agencies. Had these two pilots been cancelled early, the funds could have been used by other pilots more efficiently.

165. Some NC reports indicated a slow flow of funds to the project affecting the contracting of local workers (Saint Lucia). Similar comments were made by two pilot project leads in Jamaica. Minutes of the NSC include a few observations on this regards. At least two pilot project participants complained that they had to advance funds from their own pocket given the lengthy processes in the project and, afterward, reimbursements took months. However, during the review of the First Draft of the TE report, comments received indicate that, according to the project's bank statements, the Regional Executing Agency (CABI) was very expedite in processing cash advance requests. It seems therefore clear that some bottlenecks existed between the processing of the cash advances by the REA and the arrival of funds to the field.

166. One pilot project lead indicated the decision not to lead the project any longer given the 'unbearable' administrative burden and lengthiness. Along these lines, one national focal point expressed dissatisfaction with the amount of

reporting and financial reporting that a project of that size required.

167. The MTIASIC project was able to leverage important co-financing but totals are not available yet. The most recent co-financing report available for this TE suggests that by June 2013 the total accumulated co-financing was US$3,089,797, with leveraged funding totaling US$1,950,344 (this is lower than originally committed by project partners but the numbers only reflect 3 ½ years of project). In any case, it seems clear that countries were at least matching the GEF contribution 1:1.

168. Among the most important contributions from partners is salaries and benefits for scientific personnel, a costs that the project would have never been able to afford. E.g., for Trinidad and Tobago alone, the total co-financing in salaries is over US$321,000. That same item in Saint Lucia, for project year 4, was US$249,000.

169. By working in partnership with different governmental agencies, the academia and select NGOs, the NEAs were able to make a very efficient use of the funds. Field and research equipment were often provided by partners, as in the case of Lionfish in Bahamas and Jamaica, work with the Jamaican Iguana in Hellshire Hills (camera traps), etc. Dominican Republic has received significant in-kind support from its three NGO partners: Island Conservation, Grupo Jaragua and Hispaniola Ornithological Society. Similarly, in Jamaica contributions from Durrell Wildlife Conservation Trust, the Critical Ecosystem Partnership FUND (CEPF) and Media Impact Plc , among others have made possible to reach the project products. At regional level the situation is similar. CABI, as regional implementing agency, has been able to co-finance some activities bringing funds from donors such as CEPF.

RATING: S

L.L.	A regional project will always have complex financial and administration challenges (different currencies, banking systems, transaction costs, etc). Local expectations and practices also play a role in making administration even more complex. By nature, practitioners are far more inclined to be in the field doing ground work than staying for a couple of days at the office preparing reports. In case of future regional projects (single country projects too), there must be regional and country level inception workshops or meetings. Detailed instructions must be provided to all participants, particularly to pilot project leaders. The executing agency administration must be streamlined as much as possible and the project participants must commit to put the necessary time that narrative and financial reports require.

F. FACTORS AFFECTING PROJECT PERFORMANCE

Preparation and Readiness

170. Significant space has been dedicated in this TE to answer many questions posed by the ToR regarding the planning phase of the project, the project design and the use of available resources. The project planning team took limited advantage of existing capacities in the region and globally. The selection of IAS target species did not help with ensuring a smooth implementation and for maximizing learning of IAS control or eradication. A brief review of project partners in ANNEX J will show that none of the international organizations with proven experience in control and eradication of IAS was included as project partner, at least not at the beginning. The MtE also elaborated significantly on these same issues. During the second half of project implementation, the Implementing and executing agencies jointly introduced important changes to several pilot projects and even cancelled one of them (early in the implementation the Caulerpa Pilot was replaced by a pilot on Marine IAS and awareness). Changes undertaken were adaptive in nature, responding to both what the project participants had already learned as well as the recommendations from the MtE. Two additional changes would have enhanced the project by 'liberating' additional financial resources for other pilots: both the Alto Velo pilot and the marine IAS awareness creation pilot should have been cancelled early in the project (though cancelling Alto Velo would have not liberated enough funding to complete the Cabritos Island project anyway).

171. The factors that most influenced the quality-at-entry of the project were:

i. Lack of local capacity/knowledge of IAS management,
ii. Not engaging sufficient international partners (those with expertise on the subject),
iii. Small project budget, including enough funds for implementation, for the Regional Coordinator to provide adequate backstopping to NEAs, and for international experts to assist the NEAs.

172. In general, there was severe disproportion between the objective, the strategies to reach it and the project budget. Table 6 provides the planned budget, including total by country, yearly country allocation and the yearly average by country. Three important factors tightly intertwined created this disparity:

i. The total amount of money available to the project ($3,034,027) was too small,
ii. The project was too ambitious in setting its outputs, outcomes and end of project status for the pilot projects, and
iii. Significant lack of experience on IAS management and eradication on the part of the planning team or inadequate technical advice during the planning phase of the project.

173. Two more factors also play a role in making the budget small for the challenge being pursued:

i. By nature, the Caribbean is an expensive region, much more than the continent (Agricultural soils are scarce and oil/energy production is in general expensive), and
ii. Being an archipelago, transportation for any training or consultation event is very expensive, factor that was highlighted more than once during the evaluation interviews[45].

174. The detailed budget of the project will show that, with the exception of Bahamas, the total country budget for salary/fees of the NCs was US$120,000, and US$28,000 were allocated for consultants preparing the NISS. Additionally, there were important expenses related to travel and equipment. This means that the real amount of money available to countries for implementing the pilot projects, consultations, outreach and other products would be diminished by around US$180,000. Clearly, there was not enough money to cover IAS control or eradication. Relatively simple eradications in small islands with good accessibility may require investments between $200,000 and $400,000, at least.

175. To support the above two statements, the proposed budget for the eradication of three very different IAS (goats, cats and rats) in the Alto Velo Island (100 ha) was reviewed. The eradication estimate by participants in MTIASIC was US$45,000 for the three species. An examination of the budget demonstrates that many items that would normally be included in an eradication budget were missing and the effort required for the eradication was well underestimated. Probably the real amount needed would be without doubts over $180,000 (and even more if contracted externally).

176. Similarly to the case of Alto Velo Island, the originally proposed eradication of alien Green Iguana in Saint Lucia is another demonstration of insufficient understanding of what is required for an eradication. The Iguana has been in Saint Lucia (740 sq.Km) for nearly 9 years when MTIASIC started. As far as it was known at that moment, it was still confined to the Southwestern section of the island (though it is not clear whether there were systematic attempts to determine its presence in other areas, particularly given the problems with its detectability). No previous experience with green iguana eradication seems to exist globally, as indicated before in this TE. Very unlikely that even if investing all the funds available for Saint Lucia into this single project the alien iguana would have been eradicated.

177. During in-country interviews, a pilot project leader commented that after the pilot budget was completed and submitted for rolling it up into the ProDoc, the budget was change and received funds for implementation were far less than initially requested.

178. Project objective and goal, as well as components, were clearly described in the project document (with the caveat that objective and goal are difficult to measure). Partner resources were mostly in place but necessary legislation was

inadequate for the implementation of some activities; e.g., no Lionfish harvesting were possible in marine protected areas in Bahamas and Jamaica, and there are questions about the legality of hunting green iguana in Saint Lucia. It should be commented that MTIASIC will leverage, as it is already happening, new legislation that will make easier to manage IAS. Adoption of new legislation by countries is always a very lengthy process.

179. Partnership arrangement were negotiated well in advanced of project approval by GEF (dates for support letters from partners are shown in ANNEX J, which could be taken as an indicator). If co-financing committed did not materialized at the levels originally offered, it probably has to do with the implementation period coinciding partially with the financial crisis of 2008-2011 but not with lack of preparation work. It must be taken into consideration that, for two out of four years of project implementation, tourism to the participating countries sharply declined, lowering the income to the countries.

RATING: S

Project Implementation and Management

180. Implementation mechanisms outlined in the project document and confirmed through the contracts between the REA and the countries were followed as expected. In a few cases, like in the case of the NC contracts, some adaptations were necessary and three approaches were used:

i. Directly contracted by CABI, who then assigns the person to the National Executing Agency (NEA) (e.g., in Trinidad and Tobago),
ii. Contracted directly by the NEA with funds that have been provided by CABI through the CABI-NEA agreement (e.g., Saint Lucia), and
iii. The NEA assigns one of its officers to perform as NC but CABI provides funding to the NEA so that it can contract necessary services or temporary staffers to fill in the gaps left by the NC because of his/her new tasks. At project completion the NC returns to its duties in the NEA (e.g., Bahamas).

181. As regional executing agency, given that in some countries there is a lack of streamlined contracting mechanisms and almost total lack of granting mechanisms, CABI sometimes acquired equipment for and made payments on behalf of the NEAs. Two interviewees indicated that because of CABI's decisiveness one pilot project was saved from failure (this is also concluded from examining project internal reports).

182. In general, as per interviews with NEAs (NCs and PDs), participant countries responded to directions and guidance from the REA and UNEP. Some discrepancies occurred and even became noticeable, like the public dissatisfaction from Jamaica given the no approval of field equipment they requested for the Black River Morass pilot project.

183. The IPSC was a very active group in reviewing project progress but also in solving bottlenecks and making decisions that otherwise would have been very difficult for the Implementing Agency and the REA, particularly those that meant moving funds from one country to another or from one country to a regional activity. Similarly, as per minutes of the NSCs in different countries, the NSC was a good venue for the NC and PD to pursue project support. In the minutes, it came clear that sometimes there were difficult 'negotiations' conducted by NC and PD when trying to achieve necessary enabling conditions for activities to happen. This was particularly the case in Jamaica, on issues related to land ownership in the Goat Islands and the original plan to do IAS eradication there. In Dominican Republic, the NSC played an important role in supervising the NISS and organizing a national response to the detection of Pine Weevil.

184. Recommendations of the MtE were adequately followed, seemingly most if not all of them. The implementing and executing agencies, together with their national counterparts, made a major effort to take corrective measures when necessary. This is important to highlight and appreciate given the number of changes introduced to the pilot projects and the emphasis that thereafter was put into sustainability aspects.

185. Work relationships between the project management team (CABI staff) and implementing staff in the participant countries seem to have evolved and progressed in an adequate, smooth manner. At least, that is what surfaced

during the interviews. The same applies to the relationship between the Regional Coordinator and other project staff. This paragraph should be understood as if there were no issues and that all went perfectly nice at all times. But, as far as the evaluator was able to learn during country visits and afterward, there was no situation of major importance or that was exceptional for the project that would have required either mentioning it in this report or bringing it to the attention of UNEP's Evaluation Office.

186. As far as it is known, project implementation followed GEF and UNEP environmental and social safeguards, with the only exception of local crews climbing tall and slim trees without proper safety equipment in Saint Lucia.

RATING: S

Stakeholder Participation and Public Awareness

187. The engagement of stakeholders in the project started to occur during the planning phase of the project. Most stakeholders are natural stakeholders for the project. E.g., UWI-Mona had been working in the Black River Morass since 2004 and in marine IAS since 1999. Given its scientific capacity and history of field work, UWI was a natural partner for the project. Similarly, in Saint Lucia, the Durrell Wildlife Conservation had been working in partnership with the Saint Lucia National Trust for years before MTIASIC, which made them perfect for a partnership. Along these lines, The Nature Conservancy (TNC) actively collaborated with the Dominican Republic Government on IAS management in Catalina Island for several years in the mid-2000s.

188. Public Awareness campaigns were one of the project strengths, something widely recognized in newspapers, TV and radio. So much so that the project influenced a radio Soap opera that transmits to 15 Caribbean countries: it included one chapter on Lionfish cooking! In Jamaica, inclusion of private sector partners was significant as in the case of ScotiaBank Jamaica (http://www.youtube.com/watch?v=WhVWyT2hn2A) which enthusiastically joined the Lionfish campaign. In Saint Lucia, the 2011 Carnival theme at La Mosaique was IAS, with a fabulous display of colors and customs. The list of outreach products for all countries is immense.

189. Stakeholders and partners had an important role in shaping up the activities and products of MTIASIC. The vast majority of products generated through MTIASIC required stakeholder consultation. Examples abound: most IAS strategies included either participatory workshops or consultations, the eradication in Cabritos included consultations with the local community and the voluntary code of conduct for Saint Lucia's pet sector was prepared through participatory meetings.

190. Information exchange between NEAs and stakeholders as well as among stakeholders has been highly satisfactory and continues to increase in spite of the recent project conclusion.

RATING: HS

Country Ownership and Driven-ness

191. NEAs took full responsibility of local project implementation, with some exceptions referred before in which some acquisitions, payments and/or contracts were undertaken by CABI on behalf of the countries (there may exist local regulations that become difficult to circumvent when implementing an internationally funded project). Some examples include payments to field crews in Dominican Republic, air tickets regionally, equipment, etc.

192. Provision of NEAs counterpart seem to have run according to project needs. However, other partners' commitments were late or much smaller than originally offered or, simply, never happened.

193. National and international political and institutional framework have had an influence on the project, as it was expected. Particularly, it must be highlighted that regional activities and integration in the Caribbean are of high priority, and therefore it was not difficult for participant countries to adopt necessary coordination and exchange mechanisms. The relatively recent creation (and subsequent institutional expansion) of two environment ministries in the Caribbean adds value to the project at this time, as it is hoped MTIASIC outcomes will influence the

development of these agencies.

194. Three of the five participant countries have given unequivocal signals of their commitment to maintaining the national ISWG functioning, a fourth country (Saint Lucia) has prepared a bill for Cabinet approval for an IAS act, including a ISWG, and the fifth country (Bahamas) has made verbal assurances that the national ISWG will be housed at the Environment Ministry.

RATING: S

Financial Planning and Management

195. This TE evaluation had access to the last complete external audit of the project. The audit was conducted by Chanka Seeterram & Co., from Saint Augustine, Trinidad, and covered the financial exercise to December 31st, 2012 (the audit for the period ending December 31st, 2013 is not ready yet). According to this audit, the financial performance and cash flow ended according to "international financial reporting standards". The audit only indicates that "It is to be noted that during the course of our examination of the quarterly expenditure statements submitted by the participating countries for the year ended December 31, 2012 several queries were raised which necessitated clarification and / or submission of supporting documents". Beyond this comment, very common in projects since there are always missing invoices and backups, there were no additional findings.

196. Selection of NCs was mostly done by countries, using their own procedures. Candidates were presented to CABI which proceeded with contracting, according to the options explained before in Paragraph 78 (Chapter III).

197. As explained before, no final financial report has been completed during the TE period. Table 14, previous page, was prepared by the evaluator using yearly reports. Variances shown as of December 31, 2013 are in general inferior to around 10% with the exception of Trinidad and Tobago, Jamaica and the consultants' category. At that moment, the low expenditure rate for Trinidad and Tobago was of particular concern. The table does not suggest major changes at the level of main budget categories indicating that expenses seem to have run according to financial plans. Some important budget changes have occurred within category and therefore they do not show up in the table. The most important information that can be withdrawn from the table is the unspent balance as of 2013, US$475,001. This represents 16% of the total project budget at a moment when the project was closing.

198. Table 15 was prepared by the evaluator using information contained in yearly reports. Financial data was provided in Excel files using a format that does not allows for reorganizing data using the proposed format in the ToR. This is the most recent data available. In some cases there are major differences between planned co-financing and achieve or delivered co-financing. Such are the cases co-financing from Dominican Republic, both cash and in-kind. In-kin co-financing from regional partners is less than 30% of what was expected. It is not clear whether there are issues with co-financing reporting, which could be the case (there were some criticisms about how much effort partners needed to put into reporting co-financing). Total co-financing registered as of December 2013 was US$5,457,008 and leveraged funding was US$1,950,344. In other words, country and partners contributions to the project are substantially high. GEF should see this as encouragement to continue financing activities to SIDS in the insular Caribbean.

enses for MTIASIC Countries (as of 31 December 2013)

	Year 1 (2009 Q4 + 2010)		Year 2 (2011)		Year 3 (2012)		Year 4 (2013)		Expenses to 31December 2013	Total Original Budget
	Original Budget	Actual Expenses	Original Budget	Actual Expenses	Original Budget	Actual Expenses	Original Budget	Actual Expenses		
onnel	$ 195,500.00	$ 210,992.39	$ 195,500.00	$ 199,325.05	$ 195,500.00	$ 177,860.51	$ 195,500.00	$ 180,583.24	$ 768,761.19	$ 782,000.00
	$ 28,000.00	$ 5,000.00	$ 28,000.00	$ 12,697.13	$ 28,000.00	$ 8,902.94	$ 28,000.00	$ 33,752.53	$ 60,352.60	$ 112,000.00
icial	$ 3,000.00	$ 1,598.09	$ 3,000.00	$ 754.08	$ 3,000.00	$ 4,052.04	$ 3,000.00	$ 892.41	$ 7,296.62	$ 12,000.00
									$ -	
ct with	$ 109,747.20	$ 57,214.43	$ 38,876.75	$ 64,173.72	$ 50,573.30	$ 39,973.63	$ 35,376.75	$ 77,081.86	$ 238,443.64	$ 234,574.00
ct with epublic	$ 133,234.75	$ 42,976.00	$ 80,439.75	$ 30,180.36	$ 79,939.75	$ 66,652.80	$ 76,939.75	$ 268,286.36	$ 408,095.52	$ 370,554.00
ct with	$ 205,925.00	$ 35,788.85	$ 172,195.00	$ 97,776.67	$ 111,200.00	$ 121,193.85	$ 97,700.00	$ 164,238.15	$ 418,997.52	$ 587,020.00
ct with St.	$ 180,246.25	$ 82,051.84	$ 63,654.58	$ 120,942.43	$ 66,214.58	$ 118,236.84	$ 61,454.58	$ 46,268.37	$ 367,499.48	$ 371,570.00
ct with obago	$ 197,289.50	$ 39,325.80	$ 103,947.00	$ 48,020.66	$ 80,138.00	$ 60,859.43	$ 73,186.50	$ 109,374.53	$ 257,580.42	$ 454,561.00
Sub-total	***$ 826,442.70***	***$ 257,356.92***	***$ 459,113.08***	***$ 361,093.84***	***$ 388,065.64***	***$ 406,916.55***	***$ 344,657.58***	***$ 665,249.27***	***$ 1,690,616.58***	***$ 2,018,279.00***
									$ -	
ng	$ 2,500.00	$ 5,495.85	$ 2,500.00	$ 755.89	$ 2,500.00	$ 5,382.77	$ 2,500.00	$ -	$ 11,634.51	$ 10,000.00
									$ -	
Total	$ 9,000.00	$ 3,922.20	$ 500.00	$ 2,110.15	$ 500.00	$ 951.15	$ 500.00	$ 1,317.18	$ 8,300.68	$ 10,500.00
									$ -	
Total	$ 4,580.00	$ 1,437.79	$ 35,000.00	$ 2,599.27	$ 5,000.00	$ 3,770.44	$ 44,668.00	$ 4,257.20	$ 12,064.70	$ 89,248.00
	$1,069,022.70	**$ 485,803.24**	**$ 723,613.08**	**$ 579,335.41**	**$ 622,565.64**	**$ 607,836.40**	**$ 618,825.58**	**$ 886,051.83**	**$2,559,026.88**	**$3,034,027.00**

199. Co-financing and leverage funds have been used in a range of activities that directly helped project implementation or complemented the project. For instance, in Saint Lucia, MTIASIC did not need to finance the preparation of the management plan for Maria Major Island since it was supported by the 'Organization of Eastern Caribbean States (OECS)'. Improvements to the CIASNET web page have been financed through a grant obtained by CABI from CEPF. Several community outreach activities in Saint Lucia have been financed by NGO partners with funds from CEPF. In Jamaica, co-financing provided by UWI came from a grant from the MacArthur Foundation. Island Conservation funded significant planning and training activities for the Cabrito Island Project and is contributing financially and in-kind with planning activities in Alto Velo Island.

Table 15: **Total co-financing by country to June 2013 (with Bahamas only to June 2011)**

	CASH		IN-KIND		LEVERAGE
	PLANNED	TOTAL	PLANNED	TOTAL	
Bahamas (Jun 2011)	$ 171,965.00	$ 155,215.03	$ 356,227.00	$ 252,927.00	$ 43,570.73
Dominican Republic	$ 321,000.00	$ 83,383.83	$ 621,100.00	$ 112,299.83	$ 37,474.19
Jamaica	$ 664,930.00	$ 457,497.92	$ 989,958.00	$ 895,927.57	$ -
St Lucia	$ 270,000.00	$ 642,979.37	$ 670,000.00	$ 926,913.31	$ 316,279.37
Trinidad & Tobago	$ 406,288.00	$ 505,090.45	$ 562,082.00	$ 538,747.79	$ -
CABI	$ 60,000.00	$ 60,790.99	$ 180,000.00	$ 88,652.21	$ 130,283.75
Regional Partners	$ 466,245.00	$ 364,541.43	$ 1,419,609.00	$ 372,041.43	$ 1,422,736.30
TOTALS	**$ 2,360,428.00**	**$ 2,269,499.02**	**$ 4,798,976.00**	**$ 3,187,509.14**	**$ 1,950,344.34**

200. There are three documented cases (one through country reports and two from in-country interviews) in which deficiencies in funds procurement seemed to have affected the project. Participants indicated how lengthy disbursement of funds affected the work. The case documented in a country report is referred to the difficulty in keeping a contracted local crew given delays in paying their salaries. The two other cases were pilot project leaders who had to advance their own money to start implementing the pilots and their respective reimbursements came many months later.

RATING: S

UNEP Supervision and Backstopping

201. Project supervision plans and processes as presented by the Task Manager to NCs and PDs during the inception report were clear and complete. Presentations and materials were very detailed as to help project staffers work more easily.

202. All project PIRs were shared for this TE, as well as Mission Reports. PIRs were very valuable information sources for the TE. For the vast majority of cases, PIR ratings accurately represented progress in the project. In one case the PIR reported an activity as completed but this TE noted differences between the IA and the REA regarding their understanding of the type and reaches of the product achieved. The June 2012 PIR indicated: *"The project with participation of all countries with some contribution by non-participating countries compiled a technical bulletin that highlights knowledge and best practices of IAS in the wider Caribbean. This will be published on the website and a limited edition of 500 hard copies"*. When asked about this bulletin and the paper publication, the REA indicated: *"These were proposals that was expected to emanate from the Close out workshop. However, sadly there are no funds left. However, the CBA report will be published on the web with about 5 case studies." Actually, the PIR was referring to the "Stop the IAS" magazine, a very nice educational and dissemination publication of which 2,000 copies were printed and is posted in the public awareness section of the "CIASNET.org" web site*. The same June 2012 PIR, in the progress column of Outcome 5, indicated that "Eradications to commence in July in Alto Velo..." The June 2013 PIR included exactly the same consideration (progress level to June 2013) but eradication activities in Alto Velo never started and were cancelled later on. These were isolated cases across the reviewed PIRs. Using the progress level

column in the PIRs to announce the 'imminent' start of activities may lead to issues as the ones presented. It may not be difficult to imagine how or why these happened: information surely came from the executing partners who, amid the excitement of initiating activities, did not accurately gauge well whether these were actually about to happen. Project partners for the first PIRs are the same as at the last PIR, even though one partner has disappeared and another changed its name (partners list should have been updated).

As stated in other communications during this TE, the MTIASIC project has yielded a very high number of educational and public awareness publications. The lack of a technical bulletin highlighting best practices should not diminish the overall achievements of the project in terms of publications. While the bulletin was a legitimate aspiration of the IA, the REA and the NEAs, it was perhaps a little premature to consider it and there was no sufficient funding and time for its preparation. It is pertinent to reiterate here this TE's opinion that both the IA and REA did a superb job in guiding the project and overcoming the obstacles found. Without their persistence and creativity the project would have never achieved the good results it did.

203. As seen in this TE, the Task Manager has done a very good job not only in regular supervisory matters but also in providing encouragement to project participants for the adequate completion of products. Furthermore, the IPSC minutes are clear testimony of the effort by the task manager to bring sustainability to the attention of the participant countries, especially after the MtE (sustainability became the issue!).

204. The Task Manager also supported important adaptive measures introduced to the project, for example at the time when some management aspects of the eradication work in Cabritos were transferred to CABI as Regional Executing Agency.

205. During the TE, the times when additional information was requested, the Task Manager responded timely either by sending it or by precisely indicating were the information was.

RATING: S

Monitoring and Evaluation

206. The M&E Plan included in the ProDoc was adequate and complete. It also included a 'costed' evaluation framework that proved helpful at the beginning of the TE. While adding the numbers from the costed work plan seems to suggest that there were adequate financial resources, the REA did not count with funds for in-country monitoring and back-stopping, something that is reflected in the quality of some products.

207. The general calendar and supervision plan presented to the project team during the inception workshop in 2009 was complete, concise and easy to understand.

208. The project's original logframe and the recent updated logframe are very similar (with the changes described in this TE). Comments in this section refer to the updated logframe. The updated logframe started to be used when changes were introduced to the project as per the MtE. It has to be commented that the original logframe contained several indicators, related to eradication activities that were totally inappropriate. Changes to the pilot projects and the subsequent updating of the logframe corrected the situation.

209. The logframe contains Smart or 'quasi-smart' indicators for all project objectives/outputs. They are clearly defined and easy to understand. Some are qualitative (therefore called 'quasi-smart') which may leave doubts on how to measure them. In a few occasions, some of the indicator are technically measurable but realistically they are not. E.g., Output 3.4 requires a 20% increase in awareness after the pilot projects, at the end of project. While it's possible to measure awareness increases, the project period may not be sufficient as to produce measurable changes and scheduling it at the end of the project makes it difficult to achieve. Only one country measured it.

210. Baseline information about the indicators used for the logframe was adequate and easy to understand.

211. Data sources for the M&E reports are the NCs, PDs and NSC, in addition to country visits. Data presented by pilot project leaders for this TE have been adequate. Pilot project leaders and NCs provided data from all pilots for the TE.

212. For this TE, the evaluator received 1,327 files (not less than around 1,100 documents and the rest are pictures) in 197 folders (total 7.8 Gb). Information coming from project reports using standard UNEP or GEF formats was easy to use and analyze (PIRs, Tracking Tools, etc.). Information in other formats was more difficult to use. There was a gigantic variation among countries, NC and participants in how the information was convened: from extremely well labeled files that indicate who, what, where and when, to cryptic files in disorganized folders. It is very important, since day one of a project, to start instilling a culture of M&E among project participants. Project partners where extremely interested and candid in providing information, in all countries.

RATING: S

G. COMPLEMENTARITY WITH OTHER UNEP STRATEGIES AND PROGRAMS

213. The project is aligned with UNEP's 2010-2011 POW in several manners. E.g., in Step 1, page 6 of the POW, the MTIASIC contains a clear description of partners' role, and all subsequent PIRs have paid attention to contributions from partners. It also complies with Step 2, about project design.

214. The MTIASIC is also well in line with the objectives of the Bali Strategic Plan for Technology Support and Capacity Building, as expressed in Article II paragraphs a through j. It also complies with Article 4A 10 as MTIASIC has given participant countries ample capacity for identifying their needs vis-a-vis IAS management.

215. MTIASIC has been sensitive and aware of gender and cultural issues, and substantial work has been undertaken to engage women and children. One of the best example, but certainly not the only one, is the work conducted with communities of the lower Black River Morass. Most active leaders in these programs were women. Equally important, MTIASIC itself has provided ample opportunities for young professional women from SIDS to work on its activities. Actually, there were more women than men at NC level.

216. The project made extensive use of South-South exchanges as a capacity building mechanism. E.g., 9 agriculture and cocoa technician from Trinidad and Tobago visited Costa Rica for training. One of the IPSC meeting took place in Cuba so that participant in the MTIASIC could learn about the IAS projects in Cuba. Several more examples exist.

V. CONCLUSIONS AND RECOMMENDATIONS

A. CONCLUSIONS

217. The GEF-funded project 'Mitigating the Threat of Invasive Alien Species (IAS) in the Insular Caribbean' (MTIASIC) is of extreme relevance for the insular Caribbean, in the first place, but also for the Wider Caribbean Region. Implemented by the UN Environment Programme (UNEP), the project is a first step in fulfilling the calls and requests for strategic support that countries from the Caribbean have been making for the past three decades, since signing of the Cartagena Convention in 1983 (see paragraphs 27 through 39). *MTIASIC has been the first ever project* in the Caribbean that, through creating local capacities, intended to reach its objective of mitigating the threat to local biodiversity and economy from IAS in the insular Caribbean, including terrestrial, freshwater, and marine ecosystems".

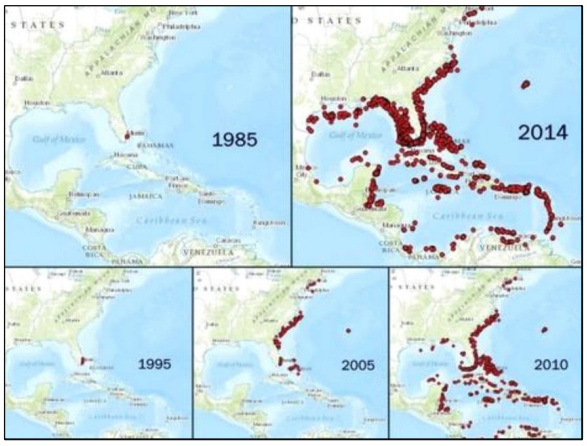
218. As evidenced by the 'Reconstructed Theory of Change (ToC)" of the project (see paragraph 90), the project's outputs and immediate outcomes created four clearly defined pathways to moved countries from their initial states closer to attaining the MTIASIC objective and goal.

219. Participant countries to the MTIASIC have made gigantic leaps in their understanding and capacity to manage IAS, and most are moving quickly to increasing their institutional and human capacities through establishing national invasive species working groups, backed up by regulations and laws, aimed at serving as cross sectorial coordination mechanisms on IAS subjects (see sub-chapter III B, paragraphs 111 and 112).

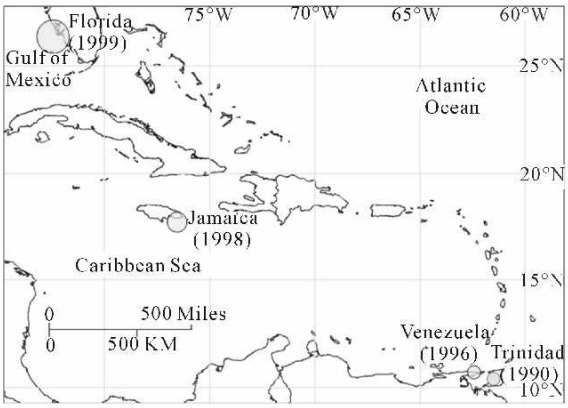
220. All countries have made a significant effort to gather existing information about IAS in their territory and analyze it in the form of 'Critical Situational Analyzes' (CSA; see paragraph 120) to come up with conclusions and recommendations to feed into a national invasive species strategy (NISS; see paragraph 113). While quality and completeness of these documents vary significantly, they are already serving their purposes and also represent without doubts the start point for further improvements by countries.

221. Furthermore, having gone through the work of collecting information about IAS in the Caribbean, attending joint training events with participants from several countries, implementing joint projects and exchanging information among them, countries participating in MTIASIC have come to comprehend that the long term biosecurity of the Caribbean will depend on having well synchronized regional mechanisms to detect IAS before they reach the archipelago and its countries, preventing their entry to the area and eradicating or bringing them under management. The preparation of the Caribbean Invasive Species Strategy is a major success of MTIASIC (see paragraph 116).

222. The significant amount of co-financing that countries and their partners in the academia, NGO and private sector have contributed to the MTIASIC project (see paragraph 199 and Table 15), is a demonstration to GEF as well as to the multilateral banks and bilateral agencies that key investments in the Caribbean can go a long way if focused on clear, documented priorities. In line with the significant co-financing contributed by countries is the number and diversity of partners participating in the implementation (see paragraphs 86 through 89, and ANNEXES D and J).



Universities and NGOs have demonstrated how important they are: without their participation in the project implementation not much would have been accomplished. The transboundary work with Lionfish developed by university and NGO scientists is just one of several examples in the project.



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223. During the interviews, one aspect explored was the adequacy and need of a regional approach to IAS prevention and management in the Caribbean. As repeated several times during the closing workshop held in Port of Spain March 31st, 2014, in-country work on IAS prevention and management will not be enough for preventing new invasions and for mitigating threats from IAS, as demonstrated by data collected and presented during the workshop (below two pilot species from MTIASIC). Importantly, it was confirmed that language differences should not perceived as

Figure 3: North bound invasion of Green Mussel (*Perna viridis*) after it first record in Trinidad in 1990 (from Gobin et al 2013).

insurmountable barriers as the gains in information and capacity building far overweighs the additional extra effort required to overcome it (See paragraph 158):

224. As any full size project, some problems and limitation emerged during implementation, and important conclusions could be drawn from them. As noted in this Terminal evaluation and previously indicated by the MtE, many pilot projects suffered delays and needed major changes to make them realistic in terms of the activities that could be undertaken and specific objectives that could be reached (see paragraphs 53 through 62 for detailed descriptions of the changes). A paramount conclusion of this TE is that the planning phase of the project has been the source of most if not all limitations in the pilot projects. Pilot project design was over dimensioned and over ambitious given the existing human and institutional capacities, and the available budget. Pilot projects did not follow best practices.

225. Adding to the previous statements, it has to be concluded and highlighted that another important factor that affected the design phase, and even the subsequent implementation, was the non-inclusion, among project partners, of well-trained, highly experienced practitioners from the fields of IAS management and eradication (see paragraph 54).

226. For IAS management and eradication projects to be successful, a rigorous sequence of planning steps needs to take place, starting by a desktop feasibility study followed by a full feasibility assessment and/or eradication plan. The removal of IAS is just one part of a far more complex cycle of a IAS management project, that on average lasts for at least three or four years.

Table 16: Criteria Evaluation Rating Table

Criterion	Summary Assessment	Rating
A. Strategic relevance	MTIASIC comes to fill a major, amply recognized gap by Caribbean countries in relation to national capacities and transboundary/regional cooperation. . The project is well aligned with UNEP 2010-2011 POW, particularly Step 1, as well as UNEP's policies related to the Bali Strategic Plan for Technology Support and Capacity Building. At the same time, the project falls under GEF 4's Long-term Objectives 1 and 3, particularly in Strategic Program 7 about 'Prevention, Control and Management of Invasive Alien Species'	HS
B. Achievement of outputs	Each Output and its individual products were rated. Detailed examination of the 'National Invasive Species Strategies' and the 'Critical Situational Analysis'.	S
C. Effectiveness: Attainment of project objectives and results	In spite of serious problems with some pilot projects, there are many great products coming out of the project, outcomes continue having impacts and countries are moving much faster than ever in the right direction. In many cases, biodiversity and economic benefits are becoming evident.	S
1. Achievement of direct outcomes	The project had mixed results in achieving the immediate outcomes resulting of the outputs. Effectiveness of the project was adequate but certainly the capacity to generate the products varied from country to country. In some countries pilot project staff felt overloaded with work.	S
2. Likelihood of impact	All countries have increased significantly their capacity to deal with IAS. Regional cooperation started since the project's inception workshop, not only among MTIASIC participant countries but between those and the rest of the WCR. The project has been highly successful to help keep off shore islands in Saint Lucia IAS free, and to prevent the arrival of Frosty Pod Rot in Trinidad and Tobago.	S
3. Achievement of project goal and planned objectives	There is no doubt that countries are moving in the direction of reaching the project objective and goal (in spite that the former is enunciative and difficult to quantify).	S
D. Sustainability and replication	In some instances it is still early to appreciate the changes generated/propelled by MTIASIC. However, the processes that will	L

	move countries closer to the project objective and goal are in place.	
1. Financial	It seems highly plausible that the governments of at least Dominican Republic, Jamaica and Trinidad and Tobago will allocate funds for IAS control and management. GEF 6 represents an opportunity to deepen work on biodiversity conservation through IAS management.	L
2. Socio-political	Country ownership is excellent in Jamaica, Dominican Republic and Trinidad and Tobago (more on biodiversity conservation in the first two countries and biased toward agricultural pests on the last country), and adequate in Saint Lucia and Bahamas.	HL
3. Institutional framework	Three national ISWGs backed up by regulations and including two new coordination positions have been created in Dominican Republic, Jamaica and Trinidad and Tobago, while Saint Lucia has introduced a bill to Parliament for a new IAS law and Bahamas has made verbal assurances about hosting the ISWG within the Environment Ministry.	L
4. Environmental	No negative effects of the project are anticipated. Countries need to be adaptive in their decision and for the implementation of the NISS.	L
5. Catalytic role and replication	One of the major achievements of the project has been training local people across several islands on how to use Lionfish as food. The project served as a good vehicle for disseminating lessons learned and information. The project has been seen as of high catalytic and capacity building by all project directors.	HS
E. Efficiency	Low expenditure rate and inefficiencies in project's years 1 and 2 are mostly due to problems in its design and the take-off/learning periods. Increased expenditure efficiency in years 3 and 4 are due to increased capacity and adaptive changes to the pilot projects.	S
F. Factors affecting project performance	Stakeholder participation and public awareness excelled among factors affecting project performance. Three out of five participant countries demonstrated strong ownership and drive-ness while the two other countries were satisfactory on these aspect.	S
1. Preparation and readiness	The factors that most influenced the quality-at-entry of the project were: i) Lack of local capacity/knowledge of IAS management, ii) Not engaging sufficient international partners (those with expertise on the subject), iii) Small project budget, including funds for the Regional Coordinator to provide adequate backstopping to NEAs.	MS
2. Project implementation and management	Implementation mechanisms outlined in the project document and confirmed through the contracts between the REA and the countries were followed as expected.	S
3. Stakeholders participation and public awareness	Public Awareness campaigns were one of the project strengths, something widely recognized in newspapers, TV and radio.	HS
4. Country ownership and driven-ness	Countries took full responsibility for running the project and co-financing gathered exceeded significantly initial commitments.	S
5. Financial planning and management	Financial management of the project seemed to have been done according to internationally accepted standards. Variances shown as of December 31, 2013 are in general inferior to around 10% with the exception of Trinidad and Tobago, Jamaica and the consultants' category.	S
6. UNEP supervision and backstopping	Project supervision and backstopping by UNEP was adequate, and training of NC and other project staff during project inception was very well conducted.	S
7. Monitoring and evaluation	The M&E Plan included in the ProDoc was adequate and complete. It also included a 'costed' evaluation framework.	S
a. M&E Design	The logframe contains Smart or 'quasi-smart' indicators for all project objectives/outputs. They are clearly defined and easy to understand	HS
b. Budgeting and funding for M&E activities	The REA did not have funding for proper monitoring of activities in-country or for back-stopping countries.	MS
c. M&E Plan Implementation	Both the MtR and he TE were conducted within adequate timeframes, including visit to participant countries and a few pilot sites.	S
Overall project rating		**S**

Table 17: Rating of Outputs/products and Outcomes

COMPONENTS / Outcomes	OUTPUTS (Nominal, according to ProDoc)	OUTPUTS (detailed)
1. Development of National IAS Strategies **Outcome:** Increased national capacity to address potential risks posed to biodiversity of global significance from invasive alien species **RATING: S TO HS**	1.1. National IAS working group established in each country **RATING HS**	1.1.1.- Bahamas **Rating MS**
		1.1.2.- Dominican Republic **Rating HS**
		1.1.3.- Jamaica **Rating HS**
		1.1.4.- Saint Lucia **Rating S**
		1.1.5.- Trinidad and Tobago **Rating HS**
	1.2. National IAS Strategy (NISS) produced for each country (full NISS completed, IAS data contributed to Compendium, new legislation) **RATING MS**	1.2.1.- Bahamas **Rating MS**
		1.2.2.- Dominican Republic **Rating S**
		1.2.3.- Jamaica **Rating S**
		1.2.4.- Saint Lucia **Rating MS**
		1.2.5.- Trinidad and Tobago **Rating U**
2. Establishment of Caribbean Wide Cooperation and Strategy **Outcome:** Increased regional cooperation to reduce risk posed to biodiversity of global significance from invasive alien species **RATING: HS**	2.1. National and regional coordination mechanisms for a regional cooperation framework **RATING HS**	2.1. National and regional coordination mechanisms for regional cooperation in place and functioning
	2.2. Draft region- wide invasive species strategies **RATING HS**	2.2. Caribbean Invasive Species Strategy completed and published.
3. Knowledge generation, management and dissemination **Outcome:** Access to data and best practice established, and public awareness of IAS strengthened **RATING: S TO HS**	3.1. Data, information and best practice on IAS management collated. **RATING MS**	3.1.1.- Bahamas CSA & Best Practices Booklet **Rating MU**
		3.1.2.- Dominican Republic CSA & Best Practices Booklet **Rating MS**
		3.1.3.- Jamaica CSA & Best Practices Booklet **Rating S**
		3.1.4.- Saint Lucia CSA & Best Practices Booklet **Rating S**
		3.1.5.- Trinidad and Tobago CSA & Best Practices Bklt **Rating MU**
	3.2. Pilot findings, existing and externally funded IAS- related research at national and regional levels documented. **RATING: HS**	3.2.1.- Lionfish Regional Strategy completed and disseminated
		3.2.2.- Key findings & lessons learnt disseminated to stakeholders
	3.3. Electronic networking systems, including linkages to GISP, GISIN and IABIN established. **RATING: S**	3.3. Electronic networking systems, including linkages to GISP, GISIN and IABIN established.
	3.4. Public communication media & measures developed. **RATING: HS**	3.4. Public communication media & measures developed (video, App)

4. Prevention of new IAS introductions in terrestrial, freshwater and marine systems **Outcome:** Increased capacity to strengthen prevention of new IAS introductions **RATING: S**	4.1. National capacity to prevent biological invasions strengthened (Trinidad & Tobago, Saint Lucia). **RATING: S**	**4.1.1.- Pilot Project Saint Lucia:** "Protecting Saint Lucia's Biodiversity from Invasive Alien Species in the Maria Islands Nature Reserve". **Rating: HS**
		4.1.2.- Pilot Project Trinidad and Tobago 1: Increased ability of stakeholders to detect and report occurrences of Frosty Pod Rot for all cocoa growing areas of T and T (6,900ha) **Rating: S**
		• **4.1.3.- Pilot Project Trinidad and Tobago 2:** Enhanced national capacity to prevent biological invasion in fresh water and marine ecosystems in Trinidad and Tobago. **Rating: U**
5. Early detection, rapid response and control of IAS impacts **Outcome:** Increased capacity to detect, respond, control and manage IAS impacting globally significant biodiversity **RATING: S**	5.1. Populations of invasive animals and plants (Dominican Republic) under control and management **RATING: HS**	**5.2.1.- Pilot Project Dominican Republic:** Eradication of alien vertebrate predators and herbivores from Isla Cabritos in Lago Enriquillo. **Rating: S**
		5.2.2.- Pilot Project Jamaica: Monitoring and Control of Vertebrate Predators in the last remaining habitat of the Jamaican Iguana (*Cyclura collie*) in the Portland Bight Protected Area. **Rating: HS**
	5.2. Populations of invasive animals and plants (Jamaica, Saint Lucia) under control and management **RATING: MS**	**5.2.3.- Pilot Project Saint Lucia**: "Protection of Saint Lucia's Unique Biodiversity through comparison of cost-effectiveness of different control methods of Invasive Alien Iguanas". **Rating: MS**
	5.3. Marine IAS controlled and managed (Bahamas, Jamaica, Trinidad & Tobago) **RATING: HS**	**5.3.1.- Pilot Project Bahamas:** A Local and Regional Research, Training and Management Approach to the Lionfish Invasion in The Bahamas. **Rating: HS**
		5.3.2.- Pilot Project Jamaica: Management & Control of the Marine Invasive Species, *Pterois volitans* (Lionfish) to prevent the impending population explosion in the Caribbean Sea **Rating: HS**
		5.3.3.- Pilot Project Trinidad and Tobago: Asian Green Mussel (Perna viridis): Effective method for control & management identified & tested. Economic impact of green mussel determined. Improvement in community structure associated with green mussel at pilot sites. **Rating: S**
	5.4. Protection measures for sites of high conservation value (Jamaica, Trinidad & Tobago) **RATING: MS**	**5.4.1.- Pilot Project Jamaica:** Control and Management of invasive plants in the Lower Black River Morass (RAMSAR Site) to prevent the further habitat loss. **Rating: S**
		5.4.2.- Pilot Project Trinidad and Tobago: The Maintenance of the Native Biodiversity of the ESA – Nariva Swamp by managing IAS threats. **Rating: MS**

B. LESSONS LEARNED AND RECOMMENDATIONS

227. The MTIASIC has been fertile ground for harvesting lessons learned of different kinds. Each lesson learned brings in a recommendation or a set of recommendations. Some recommendations apply directly to potential follow up activities and new projects after MTIASIC that might or should be consider by participant countries and their NEAs. Other recommendations apply to future projects, particularly for UNEP-implemented projects funded by GEF. In some cases, recommendations can be applicable to both follow up activities by MTIASIC participant countries as well as to new major projects by UNEP, GEF, countries, and bi and multilateral cooperation agencies.

228. LESSON LEARNED:
Successful projects are those that respond to long standing and expressed needs from countries. Often, in order to identify pressing needs at country and regional levels, following the discussions and resolutions from international treaties and intergovernmental bodies, allows to detect gaps in capacities and regulatory frameworks. Experience seems to show that countries will demonstrate a genuine interest if opportunities arise to help them fill those gaps and create capacity. As learned from the MTIASIC planning, planning teams should conduct an analysis of the recurrent needs and gaps expressed by countries, intergovernmental bodies and international treaties and focus the selection of projects on the high priority common needs documented..

229. LESSON LEARNED:
During the 5 to 7 years that comprise the planning and implementation of a GEF FSP, many changes in international and national policies may occur. Some of these changes may be directly related to the project's objectives and could make it easier to achieve the long term outcomes. Furthermore, as in the case of the Convention on Biological Diversity (CBD), significant analytical work is conducted by subsidiary bodies such as the 'Subsidiary Body on Scientific, Technical and Technological Advice (SBSTTA)' and many high quality products are made available for Parties to be able to fulfill their commitments under the Convention.

RECOMMENDATION FOR MTIASIC FOLLOW UP & FUTURE PROJECTS (UNEP/GEF/Countries):
Looking forward after the MTIASIC Project, participant countries and their NEAs should consider preparing and adopting brief guidelines and/or policy statements linking the new NISS to the country's commitments under international treaties; e.g., CBD's 2011-2020 Biodiversity strategy and the Aichi Targets. At the same time, countries and their NEAs should take advantage of those commitments to further achieving MTIASIC project outcomes in the mid to long term.

230. LESSON LEARNED:
Three of the participant countries' NBSAPs are more than 10 years old. During the past 15 years, significant new information have been generated about Caribbean biodiversity and IAS. Projects may generate sectorial strategies and plans, like the new NISS generated through MTIASIC, that make it evident how other national strategies in the country may be outdated (as it has occurred with the NBSAPs of MTIASIC countries). New sectorial strategies should serve as encouragement to countries to update all related national strategies that are clearly outdated.

RECOMMENDATION FOR MTIASIC FOLLOW UP & FUTURE PROJECTS (UNEP/GEF/Countries):
UNEP and UNEP-CEP should explore with the countries the possibility to request assistance from GEF with funds for enabling activities, and work with those countries in the preparation of updated/new national biodiversity strategies (NBSAPs) as necessary. It should not be discounted that a good approach, given economies of scale and the cross-learning potential, would be to do the work simultaneously in four to six countries.

231. LESSON LEARNED:
'Critical Situational Analysis (CSA)' should represent the starting point for countries to continue managing IAS sectorial information in a systematic way. As new information is generated, there is the potential that sections of existing CSA become outdated too quickly and therefore those documents should be 'living documents', easily updatable.

RECOMMENDATION FOR MTIASIC FOLLOW UP:
Participant countries and their NEAs should put in place mechanisms to track and monitor IAS occurrences and impacts in their countries, and use that information to continuously update the CSA and to help keep regional

and/or global databases updated.

232. LESSON LEARNED:
In the case of MTIASIC, the CSA and the NISS were conceived as two different products belonging to two different outputs. CSAs provide the essential basis for the preparation of national strategies.

RECOMMENDATION FOR MTIASCI FOLLOW UP & FUTURE PROJECTS (UNEP/GEF/Countries):
Participant countries and their NEAs should consider merging their CSAs with the NISS when the need comes for an updated version of either one. At the same time, CSAs should be considered as integral part national strategies and not as separate documents/products, and ensure they are prepared in sequence by the same team.

233. LESSON LEARNED:
Final CSAs reports may end having important information gaps even in cases when significant amounts of good information exists and is relatively available from public sources. Therefore, CSAs should represent a base from which countries can build up their information capacity and fill any existing gaps.

RECOMMENDATION FOR MTIASIC FOLLOW UP:
Countries, through the agency leading the strategic and implementation work on IAS, should explore cooperative relationships with NGOs and academia for collecting and organizing readily available information for informing updated priority setting exercises related to conservation of biodiversity threatened by IAS.

234. LESSON LEARNED:
In the field of IAS management, projects require significant amounts of good quality information, normally available through up-to-date on-line databases. The more information is put into those databases, stronger their contributions will be to IAS projects globally. IAS project design should be such that information generated can be easily contributed to on-line databases such as those from IUCN invasive species group (http://www.issg.org/index.html), the GIASI Partnership Gateway (http://giasipartnership.myspecies.info/), CABI's compendium (http://www.cabi.org/isc), the "Threatened Island Biodiversity Database (TIB)" (http://tib.islandconservation.org/) and the 'Eradication Database (DIISE)' (http://diise.islandconservation.org/), among others.

235. LESSON LEARNED:
MTIASIC generated many technical products of high value: NISS, CSA, KAP assessments, IAS susceptibility studies, native species distribution studies, IAS emergency plans and national response plans, among others. Some of these products were explicit outputs or were indicated in the project's logframe but other products were not necessarily made explicit.

RECOMMENDATION (CABI/Countries):
Project executing partners should upload to CIASNET all technical products with content and structure that make them citable or useful technical reports, plans or strategies. For products that seem still in draft version, use a 'draft' watermark to denote that but share them nonetheless.

236. LESSON LEARNED:
As it is becoming evident in CIASNT.org, news posts are becoming old and the registered experts continue being just a few. Maintaining good web pages is costly and requires dedicated staff, funds and contributors. Nice looking web pages pop up frequently and many disappear after just very few years. At the same time, building on-line databases and tools is even more expensive.

RECOMMENDATION TO CABI:
CIASNET.org must avoid duplicating efforts by other web pages and on-line databases (recommendation that also applies to any new project web page launched through GEF/UNEP projects). On the contrary, CIASNET should become the "PORTAL" to go to when looking for the best connection to IAS and island biodiversity databases, something far cheaper and badly needed. The section on Caribbean IAS in CIASNET.org should be a nice and dynamic portal connecting to the most important on-line databases such as IUCN invasive species group (http://www.issg.org/index.html), the GIASI Partnership Gateway http://giasipartnership.myspecies.info/),

CABI's compendium (http://www.cabi.org/isc), the "Threatened Island Biodiversity Database (TIB)" (http://tib.islandconservation.org/) and the 'Eradication Database (DIISE)' (http://diise.islandconservation.org/), among others.

RECOMMENDATION FOR MTIASIC FOLLOW UP:
CIASNET and Carib_IAS_Threat should explore more interconnected collaboration. E.g., messages being distributed through CIAS_IAS_Threat could appear in a little window in CIASNET. This web page should allow to be signed in to Caribe_IAS_Threat.

237. LESSON LEARNED:
The role played by communities should never be underestimated, including in IAS control and eradication projects. Community leaders can make a project succeed or be stuck and not implemented. Engaging the community, as in the case of Cabritos, may lead to better understanding of what is being pursued and/or given community 'clearance' for the further eradication actions to proceed.

238. LESSON LEARNED:
In IAS management projects, participant countries and their NEAs should consider including community members during the initial phases of IAS control/eradication, whenever technically possible and as long as the project objectives are not put at risk. Even if it takes a little longer or cost a little more, it may be worth considering that option as it contributes to create connections with local communities, may generate some temporal employment and may gain supporters for long term conservation (preventing potential reinvasions). .

239. LESSON LEARNED:
Predator control projects are very expensive and may need to be continued permanently if the conservation target species is to be saved from extinction. For the conservation of the Jamaican Iguana, the eradication of alien predators from main island Jamaica is not feasible, therefore leaving control as the only alternative. New options may be needed. The same applies to conservation of high profile, globally threatened species such as the Black-capped Petrel (EN) in Dominican Republic (actually in the entire Hispaniola Island) or the Saint Lucia Iguana in Saint Lucia.

RECOMMENDATION FOR MTIASIC FOLLOW UP & FUTURE PROJECTS (UNEP/GEF/Countries):
NEPA, in Jamaica, as well as any other agency facing similar situations, should explore the effectiveness and feasibility of other alternatives including predator proof fences either in Hellshire Hills or in 'select small peninsulas' along the coast. Technical support from cooperating governments (USA, New Zealand, and Australia) and international NGOs should also be explored.

240. LESSON LEARNED:
As in the case of the alien green iguana in Saint Lucia, finding solutions to methodological problems could be very difficult and ethical issues may also arise, like what are the 'acceptable' eradication methods vis-a-vis animal rights groups. Multi-year IAS management projects will benefit from having adequate resources for south-south and triangular exchanges. Since solutions may have been already identified and tested by other countries, it is desirable that practitioners participating in pilot projects have the opportunity to visit other SIDS or countries with islands with substantial experience on IAS.

RECOMMENDATION TO COUNTRIES PLANNING IAS PROJECTS TO FOLLOW UP AFTER MTIASIC:
Since some participant countries and their NEAs intend to follow with IAS projects after MTIASIC comes to a complete end, it is strongly recommended that before deciding to attempt control or eradication activities, a careful feasibility assessment should be undertaken to determine whether it is possible to control or eradicate the IAS. Subsequently, if this feasibility assessment shows positive, a more detailed eradication plan will be needed. In small islands with well-known IAS, it may possible that the feasibility assessment and the eradication plan are merged into a single document.

241. LESSON LEARNED:

It is not uncommon that projects need to go through important changes at mid-term. Those changes and their causal factors bring in important lessons to be learned. But these lessons would not be collated and disseminated if they are not documented, discussed and reported adequately. In addition, lacking adequate documentation of changes introduced to the project or finding contradictions between documents when explaining those changes make learning and evaluation more difficult. Project implementation teams should document changes to projects using 'Project Implementation Reports', project steering committee minutes or standalone documents that should be concise but still very complete. All project documents, including those from the executing agencies and steering committees, should share the same information. Also, the project logframe should be updated as needed and changes documented.

242. LESSON LEARNED:

Creating functional and dynamic inter-institutional national working groups requires having in place a favorable/inviting environment, providing necessary documents and communications, providing latest books and magazines on the subject and organizing field visits to learn on the ground about a case studies. Enthusiasm and commitment from members will increase with select capacity building incentives.

RECOMMENDATION FOR MTIASIC FOLLOW UP & FUTURE PROJECTS (/Countries):

Countries and NEAs that participated in the MTISASIC Project should budget a yearly allocation and staff time to keep the national ISWGs running and functioning. In future projects, 'Implementing Agencies' should make sure that necessary funds for the creation of national working groups are adequately budgeted during project planning.

243. LESSON LEARNED:

As learned during early implementation of the MTIASIC Project, having a number of IAS eradication and/or management projects in a given country does not necessarily imply the existence of needed national capacities. Comprehending why IAS management and eradication are necessary (e.g., the linkages to endemic biodiversity conservation), when and which IAS to target, how to prioritize IAS and islands, when not to engage on eradication or control, and what types of plans and assessments are necessary before a country decides to attempt a control or eradication project requires far more than having 'ad-hoc' IAS projects over a long period. It is desirable that without risking the success of projects aimed at controlling or eradicating IAS, as much as technically and financially possible, every project of this type should become a hands-on capacity building opportunity for local practitioners and agencies.

244. LESSON LEARNED:

Project planning must take advantage of all resources. It is very important to build upon the experience of international groups and governmental agencies whose main work is managing IAS. At least four countries in the Wider Caribbean Region (WCR) have extensive experience on IAS eradication and management: USA, Mexico, UK and France. New Zealand also has implemented eradication and IAS management projects in the Caribbean, and is a leading country in this field.

RECOMMENDATION TO GEF AND UNEP, AND MTIASIC FOLLOW UP PROJECTS:

For an IAS project to be approved, it has to use widely recognized standards for planning activities for eradication and management of IAS. For eradication planning, the following sequence is highly recommended: feasibility assessment, eradication operations plan and post-operation plan. Monitoring eradication success (target IAS) and restoration of ecosystems and threatened species population (conservation target) is highly recommended. Consider following the methodology presented by the Pacific Invasives Initiative: http://rce.pacificinvasivesinitiative.org/ . Plans must be peer reviewed by recognized experts.

245. LESSON LEARNED:

Planning and budgeting an eradication or IAS control activity is no easy task, in spite of extensive experience on IAS control and that more than a thousand eradications have taken place around the world. Before approving an IAS project and committing to fund the implementation of eradications or IAS control activities, planning teams and agencies dealing with IAS should prepare a feasibility assessment and detailed budget to determine what seems

possible to undertake. It is necessary to determine where the populations of IAS target fall in an invasion curve[46] and decide whether the best approach is to try and manage the IAS or to invest the financial and human resources into protecting biodiversity in other ways. Seek assistance from specialists and agencies with well recognized experience on IAS management and/or eradication.

246. LESSON LEARNED:
Lack of detailed feasibility eradication assessments or plans that assess all possible eradication methodologies while adopting 'pre-determined' eradication methodologies may lead to ineffectiveness and delays in bringing under management or eradication the IAS target. Animal welfare is a complex ethical issue which is based on societal values and interests.

RECOMMENDATION TO GEF AND UNEP, AND MTIASIC FOLLOW UP PROJECTS:
Before approving an IAS project and committing to fund eradication or control activities, the project documents should contain (at least as an annex) a thorough assessment of all available eradication methodologies, taking into consideration national laws and local practices. Selected methodologies must be those that are most effective and cost-efficient, and are accepted by stakeholders and authorities. Project documents must also indicate if Governmental agencies need to introduce new regulations or modify existing regulations for the eradication/control to take place effectively. Project documents must be realistic about what can work and what will not work. Approval should be postpone until all necessary conditions have been met.

247. LESSON LEARNED:
It is paramount to maximize the personal safety of all staffers and stakeholders participating in the implementation of UNEP and GEF projects. The accidental dead of a local collaborator, itself a tragedy, may also result in the cancellation of the project or the origin of bitter adverse reactions locally, especially if the use of safety equipment and proper training could have prevented that loss.

RECOMMENDATION FOR MTIASIC FOLLOW UP & FUTURE PROJECTS (UNEP/GEF/Countries):
Project budgets must include provision for necessary personal safety equipment and corresponding training. Training field crew on the use of safety equipment is strictly necessary and using the equipment must be mandatory.

248. LESSON LEARNED:
In some countries, the Highest Executive authorities may need parliamentary or congressional approval if they are to sign any type of agreement, like it happened with MTIASIC in Trinidad and Tobago. By nature of Parliaments, such approval may take months to be delivered and there will be a significant delay in project initiation.

RECOMMENDATION FOR FUTURE PROJECTS:
For the signing of the country agreements for initiating GEF-funded projects, EAs might want to consider having the highest possible authority from the executive that 'does not require' parliamentary or congressional approval in order to expedite project initiation.

249. LESSON LEARNED:
A regional project will always have complex finance administration challenges (different currencies, banking systems, transaction costs, etc). Local expectations and practices also play a role in making administration even more complex. By nature, practitioners are far more inclined to be in the field doing ground work than staying for a couple of days at the office preparing reports. In case of future regional projects but also single country projects, there must be regional and country level inception workshops or meetings. Detailed instructions must be provided to all participants particularly to pilot project leaders. The executing agency administration must be streamlined as much as possible and the project participants must commit to put the necessary time that narrative and financial reports require.

[46] For recent publication using 'invasion curves' to support decisions visit:
http://www.sfrestore.org/tf/minutes/2014_meetings/050614/Strategic_Action_Framework.pdf

250. LESSON LEARNED:

In project progress reports, project partners' names can easily be omitted or mismanaged unintentionally. NGOs and governmental agencies take pride of their name and the contributions they give to projects. They care significantly about how their name is used. Not recognizing the contribution to projects from NGOs and agencies is inadequate as it is to continue including organizations whose participation or contribution has been noticeably small or just informative. Inadequate management of the list of participants and partners to a project goes against the project's image. Project documents must be systematic and rigorous about who is a partner to the project (financially politically, technically, etc) and how they are mentioned. Separate the different roles played by organizations (some may simply be stakeholders and that is perfect for them), and make sure to include those organizations that are contributing to the project and with their correct name. Update your partner list periodically.

251. LESSON LEARNED:

During project evaluations, visits to pilot sites can enhance significantly the Evaluator's understanding of the project and its achievements. Whenever financially and practically possible, terms of reference for terminal evaluations should include a pilot site visit per country or more than one site if it is a single country project.

252. LESSON LEARNED:

A technical workshop at the end of the project helps consolidate knowledge and linkages among participating executing partners and other partner groups. It also provides for an excellent opportunity to initiate the Terminal Evaluation. If adequate, future projects should consider including and budgeting a terminal workshop to present the project results. This workshop should take place after all activities have been completed. In the case of regional projects, the workshop should take place after all countries have presented their 'final reports', which ideally would be presented during the event.

253. LESSON LEARNED:

In spite of project staffers and executing agencies' willingness to share information, it may be difficult to adequately organize all necessary materials at the end of the project (precisely when there is pressure on executing agencies to wrap up activities and produce all necessary reports). Preparation for MtE and TE needs to start the same day the project begins by taking simple measures to ensure that products and documents are consistently filed, labeled and 'cross-referenced'. Minutes and reports should include place and date of the meeting or activity in the text. Copying and pasting should be done with extreme care to avoid having documents with entire sections duplicated (sometimes outdated).

254. LESSON LEARNED:

Weeks of the year when at least two days are 'national holidays' tend to be taken as entire vacation weeks by a high number of people in the Americas (Holy Week, Thanksgiving, Fiestas Patrias, etc.). Activities planned during these weeks will have reduced participation and will miss target groups or important individuals. If possible, it is convenient to avoid scheduling evaluation country visits or any other official project visit during weeks with two or more holidays.

FINAL RECOMMENDATION: The MTIASIC project has increased the capacity of participant countries on IAS management matters and should be continued with a major 'Programmatic Approach' that includes a regional project with full-sized projects in several countries. This programmatic approach should be such that a diversity of countries representing the entirety of the Caribbean are encouraged to participate and allocate an adequate fraction of their GEF-6 funds. Compared to the MTIASIC Project, the proposed 'Programmatic Approach' should fertilize the participation of an increased number of Eastern Caribbean States which, together with unique insular biodiversity, have smaller islands and major IAS projects. Across the Caribbean but particularly in the Eastern Caribbean States, project rational should be based on a prioritization of biodiversity to conserve and managing the IAS threatening that biodiversity, whether through control or eradication techniques. The Programmatic Approach may engage one or more implementing agencies, and major regional components that includes managing pathways, customs, biosecurity, tourism, and aspect related to long term funding for IAS management. Importantly, there must be sufficient funding for the REA to be able to coordinate and monitor in-country activities adequately (see Paragraph 202). Along the lines of the previous sentence, the 'Implementing Agency' might need to also explore with GEF an increase in its administration fees given the elevated costs for traveling and coordinating a Caribbean wide project.

ANNEX A – TERMS OF REFERENCE FOR THE TERMINAL EVALUATION

TERMS OF REFERENCE[47]

Terminal Evaluation of the UNEP/GEF project

"Mitigating the Threats of Invasive Alien Species in the Insular Caribbean**"**

Project Background

Project General Information

Table 1. Project summary

GEF project ID:	3183	**IMIS number:**	GFL/-2328-2740-4995
Focal Area(s):	BD-SP 7: Invasive Species	**GEF OP #:**	
GEF Strategic Priority/Objective:	Ecosystem Management	**GEF approval date:**	16 July 2009
UNEP approval date:	14/9/2009	**First Disbursement:**	22 September 2009
Actual start date:	23/9/2009	**Planned duration:**	48 months
Intended completion date:	July 2013	**Actual or Expected completion date:**	31 March 2014
Project Type:	FSP	**GEF Allocation:**	US$ 3,034,027
PDF GEF cost:	US$ 225,000	**PDF co-financing*:**	US$ 478,222[48]
Expected MSP/FSP Co-financing:	$ 1,894,183 (cash) + $ 1,485,184 (in kind)= US$ 3,379,367	**Total Cost:**	US$7,116,616
Mid-term review/eval. (planned date):	August 15, 2011	**Terminal Evaluation (actual date):**	
Mid-term review/eval. (actual date):	December 2011	**No. of revisions:**	1
Date of last Steering Committee meeting:	11 June 2013	**Date of last Revision:**	11 July 2013
Disbursement as of 30 June 2013:	US$2,685,195	**Date of financial closure:**	
Date of Completion:		**Actual expenditures reported as of 30 June 2013:**	US$1,701,975
Total co-financing realized as of 30 June 2013:	US$2,717,756	**Actual expenditures entered in IMIS as of 30 June 2013:**	US$ 1,558,475
Leveraged financing:	US$527,608		

Project rationale

1. Invasive Alien Species (IAS) are a major threat to the vulnerable marine, freshwater and terrestrial biodiversity of Caribbean islands and to people depending on this biodiversity for their livelihoods. Caribbean states have recognized the need for a regional strategy and expressed strong interest in linking up their national efforts in implementing Article 8 (h) of the Convention on Biological Diversity (CBD) to mitigate the threats of IAS in the Caribbean. Countries in the Caribbean are also contracting parties to the *Convention on the Protection and*

[47] Headings have been reformatted to avoid conflict with the general formatting of the document, without changing any part of the text.
[48] This represents final PDF-A & PDF-B co-financing ($418,100 + $330,122) which totaled $478,222, rather than $414,299 which was reflected at the time of endorsement. Total Cost has been adjusted upwards accordingly.

Development of the Marine Environment of the Wider Caribbean of 1983 and its *Protocols on Specially Protected Areas and Wildlife* (SPAW Protocol of 1990) and *Pollution from Land-Based Sources and Activities* (LBS Protocol) of 1999. Article 12 of the SPAW Protocol refers specifically to the control of alien species.

2. The Caribbean, designated as one of the world's biodiversity hotspots, spans 4.31 million km^2 of ocean and 0.26 million km^2 of land. It supports extremely diverse ecosystems (marine, freshwater and terrestrial) of global ecological and economic importance. In particular, the marine ecosystems surrounding the Caribbean islands comprise a major share of the region's globally important biodiversity. This was recently recognized by the UN, which designated the Caribbean Sea as a Special Area in 2002.

3. In July 2006, the first funding cycle, a Project Development Facility-A (PDF-A) was granted by GEF, supported by a co-financing ratio of 1:6. Activities under PDF-A had the following six countries as focal points: the Bahamas, Cuba, Dominican Republic, Jamaica, Saint Lucia and Trinidad & Tobago. During the PDF-A phase the pilot countries began to define their current state of knowledge regarding IAS. They also started to analyze how their existing national legislation and programmes, as well as their obligations under multilateral agreements and conventions, address the management of IAS. This work was continued and expanded during the second phase in the GEF project development cycle, the Project Preparation Grant (PPG), with a focus on identifying gaps, inconsistencies and conflicts in national policies and programmes in order to prioritize the actions needed. The PDF-A phase was completed with an international workshop in January 2007. Cuba withdrew its engagement after completing PDF-A, but should have been kept informed about project advances.

4. During this project, in parallel with participation in the development of national and regional strategies, each country also addressed its own most pressing IAS problems through a total of twelve pilot projects, relating to prevention, early detection and rapid response, management and eradication of the most problematic IAS. In all the pilots there were a strong emphasis on capacity building among government staff and other practitioners, as well as raising awareness of IAS issues among a wider stakeholder group including the general public? The project aimed to provide the participating countries and others in the Caribbean region with the necessary tools and capacity to address existing and future biological invasions.

Project objectives and components

5. The project **objective** was to mitigate the threat to local biodiversity and economy from IAS in the insular Caribbean, including terrestrial, freshwater, and marine ecosystems, thereby aiming to contribute to the conservation of globally important ecosystems, species and genetic diversity within the insular Caribbean, which was identified as the key **goal** of the project.

6. The overall **purpose** of the project was to provide the participating countries and others in the Caribbean region with the necessary tools and capacity to address existing and future biological invasions. All the participating countries already had some measures in place to prevent, control and/or eradicate IAS, but those measures focused mainly on agricultural pests and weeds. This project aimed to broaden this narrow approach to dealing with IAS by establishing an extensive framework addressing IAS that threaten marine, aquatic and terrestrial ecosystems and their biodiversity, including strategies to mitigate these in national policy frameworks.

7. The project design considered the regional approach as key to the achievement of the main objective. The five participating countries are all classified as small scale economies and have very restricted resources to successfully prevent and/or manage IAS introductions. Through cooperation, the countries' ability to manage IAS should have been increased through cost effective knowledge generation and capacity building. Furthermore, a cooperative, regional approach was deemed necessary for the management of IAS in the Wider Caribbean Region (WCR) as one country failing to prevent and/or control an IAS introduction would inevitably jeopardize other countries' efforts to do so. Additionally, the small scale of the Caribbean economies necessitated a regional approach, which is legally supported through the Cartagena Convention of 1983. In particular, the Specially Protected Areas and Wildlife Protocol, which came into force in 2000, calls on its parties to initiate a Caribbean-wide IAS control programme and to enforce capacity building activities.

8. The structure of this project comprised seven components addressing national and regional policy development (Components 1 and 2); information management (Component 3); capacity building to prevent biological invasions (Component 4); early detection, management and eradication of IAS (Component 5); project management (Component 6) and Evaluation (Component 7). The simultaneous implementation of the components and their mutual interaction and knowledge exchange should have ensured that IAS would be addressed at every level necessary. The technical implementation aspects of the project were designed as pilot projects within Components 4 and 5. The project had seven Expected Outcomes:

    a) Increased national capacity to address potential risks posed to biodiversity of global significant from IAS.
    b) Increased regional cooperation to reduce risk posed to biodiversity of global significant from IAS.
    c) Establishment of access to data and Best Practices. Strengthening of Public awareness of IAS.
    d) Increased prevention of new IAS introductions impacting global biodiversity.
    e) Increased eradication and/or improved control management of IAS impacting global biodiversity.
    f) National and regional coordination; monitoring and evaluation.
    g) Outcome evaluation

    The project planned a total of twelve pilot projects across the five partner countries, addressing marine, terrestrial and aquatic IAS. A brief description of the technical components (1-5) of the project and the status as reported in the latest Project Implementation Review (PIR) and/or the Mid Term Evaluation (MTE) are available below.

9. Component 1: Development of National IAS Strategies

Using the baseline of existing sector strategies, and following a multi-sectorial consultative process, the project planned to develop recommendations for national IAS policy and legal frameworks. The involvement of all key stakeholders from relevant sectors was considered crucial to the development of successful national IAS strategies. A National Steering Committee (NSC) was set up in each country to oversee development of a NISS that would also address the risks of climate change and associated IAS risks. The NSC was also intended to guide the overall strategic direction of the project to ensure coherence and integration of the various components. At the time of project development, the Bahamas was the only country in the region that already has a NISS in place.

At the time of the last PIR, all National Project Units (NPU) and National Steering Committees (NSCs) were in place and functional. However, the Bahamas National Coordinator had been on extended sick leave without a replacement. Some of the functions were fulfilled but major reports such as the financial reports were unavailable while the technical reports have some minor gaps. NSCs had been holding at least quarterly meetings that guide the project implementation and the development of the National Invasive Species Strategies (NISS) in all countries.

10. Component 2: Establishment of Caribbean-wide Cooperation and Strategy

Regional IAS strategies for marine, terrestrial and aquatic IAS that recognize the economical, ecological and political complexities in the region were intended to complement the national efforts described under Component 1. The regional strategies was to build on individual national strategies and expand the draft CRISIS document (which was primarily focused on agricultural pests and diseases) as well as provide a platform for the exchange of IAS expertise and best practice. Expertise from related projects and initiatives, as well as from countries in the region which were not participating in the project was to be taken into account. The inclusion in the working groups of representatives from parallel initiatives such as GloBallast, Caribbean Invasive Species Working Group (CISWG) and Inter-American Biodiversity Information Network – Invasives Information Network (IABIN-I3N) was intended to ensure continued cooperation and harmonization of strategic direction with these projects, and avoid duplication of effort. As part of its commitment to Caribbean-wide cooperation, the project planned to reach to relevant countries, including Cuba, Haiti and the UK Overseas Territories.

At the time of the last PIR, a regional IAS Strategy was being promoted and it was agreed that it will be a live document until the end of the project.

11. Component 3: Knowledge Generation, Management and Dissemination

During the project duration, the Critical Situation Analyses (CSAs) were intended to be finalized through a more comprehensive desk study. Component 3 planned to target a wide range of stakeholders to ensure that the project findings are translated into accessible messages, recommendations and guidelines that would lead to positive action against IAS at every stakeholder level from senior policy makers to the general public. The National IAS Experts were supposed to prepare technical reports on the pilot projects which would be circulated to the other countries. Public awareness campaigns were also planned for each of the pilot projects. At the global level, the project outcomes were intended to be shared with the wider island community through the Global Island Partnership (GLISPA). Several electronic networking initiatives were planned, including linkages to GISP and databases such as GISIN, the Global Invasive Species Database (GISD), IABIN, and Nonindigenous Aquatic Species Database (NASD), as well as the moderation of the Caribbean_IAS_Threat Yahoo group. The establishment and maintenance of a project website (www.CIASNET.org) was identified as a key resource to improve data sharing.

At the time of the last PIR, all countries had completed a CSA, public awareness campaigns were underway and the CIASNET.org was being upgraded.

12. ***Component 4: Increase Capacity to Strengthen Prevention of new IAS Introductions in Terrestrial, Freshwater and Marine Systems***.

The countries planned to build a prevention framework, apply risk assessments, quarantine measures, management interventions and capacity building through pilot projects. Results were going to be validated through trial schemes and disseminated and demonstrated to stakeholders. This work was intended to be based on two contrasting cases. The first is Trinidad & Tobago, which is at risk of becoming the entry point for the Frosty Pod Rot (FPR) fungus to the region. Originally native to the Caribbean, an invasive variety bred for aquaria is thought to have been reintroduced from the Mediterranean. The second case planned to target the protection of the unique biodiversity of Maria Island in St. Lucia.

St Lucia Off-shore islands were reportedly being kept IAS predator free and were being monitored in collaboration with Durrell Wild Conservation Trust (DWCT). Key stakeholders were being trained in field and laboratory identification of FPR and continuing surveillance high traffic areas was reported as ongoing.

13. Component 5: Increase Capacity to Detect, Respond, Control and Manage IAS

Pilot projects under Component 5 addressed options for the management of IAS that were already present, at four levels: early detection and rapid response; eradication of incipient invasions or contained (island) populations; management of established IAS invasions for which eradication is not feasible; and protection measures for sites of high conservation value. A pilot project in Trinidad & Tobago was intended to address the problem of the marine invasive macroalga *Caulerpa taxifolia*. In St.Lucia, the pilot planned to address the eradication of a nascent invasion of alien iguanas. Eradication of mammalian predators on small islands was the focus of pilot projects in Jamaica and the Dominican Republic. In Jamaica, the objective was the protection of the critically endangered endemic Jamaican iguana **(***Cyclura collie)* in the Portland Bight Protected Area. In the Dominican Republic, eradication of invasive mammalian predators and herbivores from Alto Velo and Cabritos islands was expected to enable restoration of native plant and animal communities. Two of the pilot projects addressed the management of established marine invasives: lionfish (*Pterois volitans*) and green mussel. Two pilot projects in Jamaica and Trinidad and Tobago studied the effects of IAS at the ecosystem level.

According to the MTE, despite some delays in implementation, pilots were underway and were expected to provide valuable lessons that would complement the work by others in controlling and managing the increasing numbers of IAS. The Caulerpa Taxifolia pilot had to be replaced since it was not the invasive strain. It was decided that the pilot should focus on raising awareness of Marine and aquatic IAS in Trinidad and Tobago instead. During the International Project Steering Committee in February 2012, it was decided that the focus on

eradication should be changed to management and control for all pilots except for Cabritos and Alto Velo in the Dominican Republic.

Table 2. Project expected outcomes and outputs

Project Components	Expected Outcomes	Expected Outputs
1. Development of national IAS strategies	Increased national capacity to address potential risks posed to biodiversity of global significance.	National IAS strategies[49] in place to inform and develop policies, legislation, regulations and management.
2. Establishment of Caribbean-wide cooperation and strategy	Increased regional cooperation to reduce risk posed to biodiversity of global significance from IAS.	Region wide strategy and coordination mechanisms in place to set regional framework for cooperation.
3. Knowledge generation, management and dissemination	Access to data and BP established. Public awareness of IAS strengthened	Data, information and best practice on IAS management. Pilot findings, existing and externally funded IAS related research at national and regional levels documented. Electronic networking systems, including linkages to GISP, GISIN and IABIN established. Public communications media and measures developed.
4. Prevention of new IAS introductions in terrestrial, freshwater and marine systems	Increased prevention of new IAS introductions impacting global biodiversity	One to two innovative cost effective pilot projects preventing new IAS introductions (eg. through prevention frameworks, risk assessment application, quarantine measures, management interventions, etc…) in each of 5 Caribbean Countries.
5. Early Detection, rapid response and control of IAS impacts	Increased eradication and/or improved control management of IAS impacting global biodiversity	One to two innovative, cost effective pilot projects mitigating IAS impacts in each of 5 Caribbean Countries.

Executing Arrangements

14. The *Implementing Agency* for the project was the United Nations Environment Programme (UNEP). In this capacity, UNEP has had overall responsibility for the implementation of the project, project oversight, and co-ordination with other GEF projects.

15. The *lead Executing Agency* for the project was CABI[50]. CABI served as the executive agency at the global level. The project was part of CABI's Global Theme "Invasive Species". CABI oversaw the PMU, located at the CLA regional centre in Trinidad. The PMU included an International Coordinator (IC) and a full time administrator/ accountant. The PMU was assisted by a project advisory panel which included Technical Advisors from the EA. Each country's PIU had a National IAS Expert/Coordinator (NC), a staff member from the NEA, a national administrative/accounting assistant, and Technical Advisors/Subject Matter Specialists. The IC had overall

[49] Data from pilot projects (components 4 and 5) will complement desk studies under component 3 to feed knowledge into national strategies (component 1). Again through knowledge management and dissemination of component 3, these national strategies, policies and regulations will be exchanged and discussed in bodies set up and/or strengthened during this project (components 2 and 3) to develop into a region-wide strategy.

[50] Centre for Agricultural Bioscience International, its mission is to improve people's lives worldwide by providing information and applying scientific expertise to solve problems in agriculture and the environment. See: http://www.cabi.org

responsibility for the direction of the project, detailed work planning, financial management and the timely delivery of outputs including reports, as well as regional coordination activities (mainly under Component 2). The NCs was responsible for all activities within their respective countries. The IC and NCs together comprised the Senior Management Team of the project. They were planned to meet at least every six months, and hold teleconferences at least once a month.

16. At the beginning of the project a National Steering Committee (NSC) was set up in each country to oversee development of a NISS that would also address the risks of climate change and associated IAS risks and would meet every 3-6 months. This comprised the National Coordinator (NC), representatives of partner organisations, and technical experts contracted according to need from GEF and co-finance sources. The NC was going, whenever possible, to be housed in the agency leading the country's IAS and/or biodiversity portfolios. Committee members reported to the NC, who in turn reported to the IC. At the international level, a Project Steering Committee (PSC) was set up and was planned to meet at least once a year to oversee and coordinate regional activities and collaboration under Component 2. Membership included representation from each of the National Executing Agencies (NEA), the CABI Project Leader, the Regional Project Coordinator and the UNEP/GEF representative. PSC responsibilities included: reviewing biannual progress and quarterly financial reports and annual summary progress reports, providing policy guidance to the project, assisting the Project Implementation Units (PIUs) in developing linkages with other related projects, and overall guidance for the project implementation. The PSC was scheduled to meet once a year.

Project Cost and Financing

17. The estimated project costs at design stage and associated funding sources are presented in Table 3. Table 4 and 5. They present an overview of estimated co-financing, including expected contributions from regional project partners.

Table 3. Estimated project cost

Cost to the GEF Trust Fund	*3,034,027 47.3*
Co-financing	
Cash	
The Bahamas	171,965 2.7
Dominican Republic	321,000 5
Jamaica	664,930 10.4
Saint Lucia	270,000 4.2
Trinidad & Tobago	406,288 6.3
CABI	60,000 0.9
Sub-total	*1,894,183 29.5*
In-kind	
The Bahamas	184,262 2.9
Dominican Republic	300,100 4.7
Jamaica	325,028 5.1
Saint Lucia	400,000 6.2
Trinidad & Tobago	155,794 2.4
CABI	120,000 1.9
Sub-total	*1,485,184 23.2*
Total	6,413,394 100

Table 4: Co-finance commitments by regional partners

Name of co-financier (source)	*Amount ($)*
UNEP CAR/RCU	In-cash 40,000
UNEP CAR/RCU	In-kind 60,000
APHIS	In-cash 40,000
APHIS	In-kind 40,000
CERMES	In-cash 22,400

CARICOM	In-cash 5,000
CARICOM	In-kind 300,000
CARINET	In-cash 17,200
CARINET	In-kind 8,850
ELI	In-kind 20,000
FAMU	In-cash 60,000
FAMU	In-kind 80,000
FAO	In-kind 100,000
IABIN	In-cash 20,000
IABIN	In-kind 34,500
IICA	In-cash 15,000
IICA	In-kind 25,000
CISWG	In-cash 4,550
CISWG	In-kind 5,850
GISP	In-cash 100,000
GISP	In-kind 100,000
RAC REMPEITC	In-kind 70,000
SUSTRUST	In-cash 20,000
SUSTRUST	In-kind 15,000
TNC	In-cash 82,095
TNC	In-kind 14,164
UF-IFAS	In-cash 40,000
UF-IFAS	In-kind 80,000

Table 5: Summary of co-financing

In-cash	In-kind	TOTAL		
National co-financing		1,894,183	1,485,184	3,379,367
Regional/global co-financing Commitments		566,245	1,003,364	1,569,609
TOTAL		2,460,428	2,488,548	4,948,976

18. The co-finance committed for the project includes two elements: commitments from national partners (listed in table 3) and commitments from regional and global partners which are not country-specific. In general, the latter type of co-finance provides more general support, including complementary activities which were going to add value to the project outputs, rather than direct support to project activities. For this reason, only the co-finance committed specifically to project activities is included in table 4 for the purpose of providing an overview of project costs. In the 2013 PIR, it was noted that cash flow problems had resulted in the inability of some regional organisation to meet their pledged cash co-finance.

Implementation Issues

19. The MTR was originally scheduled for January 2011. Due to delays in identifying a Reviewer/contracting, the Evaluation began on 1 September 2011 and was completed in December 2011. Overall, the Mid-term Targets have been largely achieved in a Moderately Satisfactory to Satisfactory manner, although some aspects of the original project design have had to be modified substantially (one pilot project discontinued) and some activities remained behind schedule due to logistical constraints.

20. The MTE acknowledged the particular challenges inherent to working in the region, the fact that IAS have in the meantime become a low priority issue, and the relatively small fund allocation for a project of this size. MTE findings included inadequacy in some elements of the project design and proposal review process, and ongoing complications such as staff turnover and delayed equipment procurement, nevertheless the project was considered by the MTE to have achieved substantial results and impact.

21. According to the MTE, greater efforts needed to be made to proactively garner political will and legislative/policy action to address the IAS issue; funding and financial reporting procedures needed to be clarified and streamlined as they have contributed to substantial delays in implementation; project partners (especially those involved in the pilot projects) required better communication and engagement); some pilot projects needed to be reviewed and further redefined in order to identify/meet realistic measures of success due to logistical complications; the CIASNET.org website would benefit from a near-term evaluation and revision process so as to make it more attractive and user-friendly. Additionally there seemed to be considerable room and need to bring more partners/stakeholders to the table who could provide technical assistance at all levels of the project and and training of relevant project participants in economic analysis, risk analysis, and social marketing/pride campaign strategies was necessary.

22. From the perspective of the MTE consultant and several interviewees who have substantial experience working with IAS, there were a number of targets that were not included in the original project design that it would have been necessary for the project to achieve if it was going to "preserve globally significant ecosystems, species and genetic diversity in the Caribbean region" in both the short- and long-term.

23. Several project partners and project staff identified the need for better communication and engagement of key stakeholders. Project partners (particularly those working on activities associated with the pilot projects) reported that they were largely uninformed about the overall project vision and activities.

24. There was considerable gratitude for CABI's willingness to serve as regional EA for this project. The amount of effort required to manage a project of this magnitude on a relatively small budget was recognised by the project participants and the MTE consultant. At the same time, a desire for better project administration was expressed at all levels of the project. The need for clarity and consistency in financial management and reporting, and granting mechanism, for better clarity in roles of project partners, including obligations already laid out in written agreements and increased flexibility and capacity support were some of the points mentioned.

Terms of Reference

Objective and Scope of the Evaluation

1. In line with the UNEP Evaluation Policy[51], the UNEP Evaluation Manual[52] and the Guidelines for GEF Agencies in Conducting Terminal Evaluations[53], the Terminal Evaluation of the Project "Mitigating the Threats of Invasive Alien Species in the Insular Caribbean" will be undertaken immediately before, completion of the project to assess project performance (in terms of relevance, effectiveness and efficiency), and determine outcomes and impacts (actual and potential) stemming from the project, including their sustainability. The evaluation has two primary purposes: (i) to provide evidence of results to meet accountability requirements, and (ii) to promote learning, feedback, and knowledge sharing through results and lessons learned among UNEP, the GEF and their executing partners – CABI and national partners in particular. Therefore, the evaluation will identify lessons of operational relevance for future project formulation and implementation. It will focus on the following sets of key questions, based on the project's expected outcomes, which may be expanded by the consultants as deemed appropriate:

    a) How and to what extent did the project have an impact on increased national capacity to address potential risks posed to biodiversity of global significant from IAS? To what extent has national legislation been enacted and sustainable enabling conditions (such as national level committees/working groups), and institutional capacities been strengthened? To what extent have individual capacities, region wide, been strengthened both in numbers and in knowledge, through targeted capacity building efforts supported by the project?

    b) How and to what extent did the project have an impact on increased regional cooperation to reduce risk posed by IAS to biodiversity of global significance? To what extent has the project been successful in establishing and/or strengthening long term regional cooperation? Regional cooperation was identified as key to the achievement of the Expected Outcomes, but capacity to address IAS issues in the region is relatively low from political, financial, technical, and logistical perspectives. The region is also varied in terms of culture, language, economies and governance structure. Additionally, the participating countries do not in themselves represent "the Caribbean region". How have project achievements such as the Regional IAS Strategy and regional steering committees contributed to addressing these significant regional challenges?

    c) Baseline data on biodiversity, and particularly invasive species' in the Caribbean was acknowledged to be relatively poor. To what extent has the project been able to improve access to data and established Best Practices for participating countries and the region at large? The CIASNET.org site was deemed to have the potential to be an important project legacy, but users expressed considerable disappointment at the time of the MTR. To what extent has the project improved the accessibility utilisation, and sustainability of CIASNET.ORG?

    d) How and to what extent did the project have an impact on increasing public awareness of IAS? For example, how was adaptive management reflected as the invasive lionfish crisis unfolded in the region? To what extent has the outreach capacity of each of the 5 participating countries and the region at large in raising public awareness been increased? Has this resulted in measurable changes in relevant human behaviour?

    e) To what extent has the project contributed to increased capacity to prevent new IAS introductions with a potential to impact global biodiversity? To what extent have the two pilots under Component 4 achieved their expected outcomes?

    f) To what extent did the project have an impact on increased eradication and/or improved control management of IAS impacting global biodiversity? The implementation of pilot projects is a significant

[51] http://www.unep.org/eou/StandardsPolicyandPractices/UNEPEvaluationPolicy/tabid/3050/language/en-US/Default.aspx
[52] http://www.unep.org/eou/StandardsPolicyandPractices/UNEPEvaluationManual/tabid/2314/language/en-US/Default.aspx
[53] http://www.thegef.org/gef/sites/thegef.org/files/documents/TE_guidelines7-31.pdf

component of this expected outcome. Some pilot projects needed to be reviewed and further redefined in order to identify/meet realistic measures of success due to logistical complications, one had to be discontinued. To what extent did the pilot project achieve their expected outcome and to what extent did they contribute to the achievement of increased eradication and/or improved control management of IAS impacting global biodiversity?

g) To what extent did the project ensure national and regional coordination of the activities? To what extent did the NSC oversee the development of a NISS that addresses the risks of climate change and associated IAS risks? Given the importance of the regional dimension for this project, to what extent did the IPSC oversee and coordinate regional activities and collaboration under Component 2? To what extent was the project able to leverage both financial and intellectual resources from within the region and globally? For example, cooperation with Pacific Islands invasive efforts. To what extent did the project produce spillover effects at the local, national, regional and global levels (including, for example, spin off projects, non-documented efforts, etc.)?

h) During the GEF-6 funding cycle, IAS programming will focus solely on island ecosystems. To the extent possible, the Evaluator should make some recommendations to help guide future potential programming taking into considerations the very valuable lessons learned with respect to the challenges of targeted eradication under this project (which will be the focus of GEF-6).

Overall Approach and Methods

2. The Terminal Evaluation of the Project "Mitigating the Threats of Invasive Alien Species in the Insular Caribbean" will be conducted by an independent consultant under the overall responsibility and management of the UNEP Evaluation Office (Nairobi), in consultation with the UNEP GEF Liaison Office (Washington), and the UNEP Task Manager at UNEP/DEPI (Nairobi).

3. It will be an in-depth evaluation using a participatory approach whereby key stakeholders are kept informed and consulted throughout the evaluation process. Both quantitative and qualitative evaluation methods will be used to determine project achievements against the expected outputs, outcomes and impacts.

4. The findings of the evaluation will be based on the following:

A desk review of project documents and others including, but not limited to:

Relevant background documentation, inter alia UNEP and GEF-4 policies, strategies and programmes pertaining to invasive alien species at the time of the project's approval; Project design documents; Annual Work Plans and Budgets or equivalent, revisions to the logical framework and project financing; Project reports such as progress and financial reports from the executing partners to the Project Management Unit (PMU) and from the PMU to UNEP; Steering Group meeting minutes; annual Project Implementation Reviews and relevant correspondence; Documentation related to project outputs; Relevant material published, e.g. in journals, books, at conferences or on the project web-site: www.ciasnet.org; Notes from the Steering Committee meetings.

Interviews with:

UNEP Task Manager and Fund Management Officer and other relevant staff in UNEP related activities as necessary;
Interviews with project management and technical support including the current project team based in Trinidad, national execution teams for 5 countries and key regional partners to the extent possible; Stakeholders involved with this project, including NGOs, regional and international organizations and institutes in the participating countries and regions Relevant staff of GEF Secretariat (eg. CARICOM, FAO, NOAA, and others); and Representatives of donor agencies and other organisations (if deemed necessary by the consultant).

Country visits:

The evaluation consultant will attend the closing workshop in Port of Spain, Trinidad on March 31-April 4 2014 and visit at least 3 additional participating countries.

Key Evaluation principles

5. Evaluation findings and judgements should be based on sound evidence and analysis, clearly documented in the evaluation report. Information will be triangulated (i.e. verified from different sources) to the extent possible, and when verification was not possible, the single source will be mentioned. Analysis leading to evaluative judgements should always be clearly spelled out.

6. The evaluation will assess the project with respect to a minimum set of evaluation criteria grouped in six categories: (1) Strategic Relevance; (2) Attainment of objectives and planned result, which comprises the assessment of outputs achieved, effectiveness and likelihood of impact; (3) Sustainability and replication; (4) Efficiency; (5) Factors and processes affecting project performance, including preparation and readiness, implementation and management, stakeholder participation and public awareness, country ownership and driven-ness, financial planning and management, UNEP supervision and backstopping, and project monitoring and evaluation; and (6) Complementarity with the UNEP strategies and programmes. The evaluation consultants can propose other evaluation criteria as deemed appropriate.
7. Ratings. All evaluation criteria will be rated on a six-point scale. However, complementarity of the project with the UNEP strategies and programmes is not rated. Annex 3 provides detailed guidance on how the different criteria should be rated and how ratings should be aggregated for the different evaluation criterion categories.

8. In attempting to attribute any outcomes and impacts to the project, the evaluators should consider the difference between *what has happened with and what would have happened without the project*. This implies that there should be consideration of the baseline conditions and trends in relation to the intended project outcomes and impacts. This also means that there should be plausible evidence to attribute such outcomes and impacts to the actions of the project. Sometimes, adequate information on baseline conditions and trends is lacking. In such cases this should be clearly highlighted by the evaluators, along with any simplifying assumptions that were taken to enable the evaluator to make informed judgements about project performance.

9. As this is a terminal evaluation, particular attention should be given to learning from the experience. Therefore, the "*Why?*" question should be at front of the consultants' minds all through the evaluation exercise. This means that the consultants needs to go beyond the assessment of "*what*" the project performance was, and make a serious effort to provide a deeper understanding of "*why*" the performance was as it was, i.e. of processes affecting attainment of project results (criteria under category 3). This should provide the basis for the lessons that can be drawn from the project. In fact, the usefulness of the evaluation will be determined to a large extent by the capacity of the consultants to explain "*why things happened*" as they happened and are likely to evolve in this or that direction, which goes well beyond the mere review of "*where things stand*" today.

Evaluation criteria

Strategic relevance

10. The evaluation will assess, in retrospect, whether the project's objectives and implementation strategies were consistent with: i) Sub-regional environmental issues and needs; ii) the UNEP mandate and policies at the time of design and implementation; and iii) the GEF Ecosystem Management focal area, strategic priorities and operational programme(s). The MTE noted that it was not particularly feasible to determine how relevant the project will actually be during at mid-term and that it will ultimately depend on how proactive the project leadership was going to be in making it relevant. Project participants were encouraged to begin identifying strategic actions to make the project relevant throughout the region and globally and begin to implement these actions at both the national and regional levels. The evaluation will take note of the MTE observations and any subsequent developments in assessing this parameter.

11. The evaluation will also assess whether the project objectives were realistic, given the time and budget allocated to the project, the baseline situation and the institutional context in which the project was to operate. It was already noted during the MTE that the budget appeared limited for the scale of activities proposed.

Achievement of Outputs

12. The evaluation will assess, for each component, the project's success in producing the programmed results as presented in Table 2 above, both in quantity and quality, as well as their usefulness and timeliness. Briefly explain the degree of success of the project in achieving its different outputs, cross-referencing as needed to more detailed explanations provided under Section F (which covers the processes affecting attainment of project objectives). The achievements under the regional and national demonstration projects will receive particular attention.

13. The MTE highlighted five activities contributing to several outputs that warranted particular acknowledgment and/or input at the time: the Regional Invasive Species Strategy and Action Plan, the CIASNET.org website, lionfish projects, other pilot projects, and the Trinidad & Tobago Marine IAS Public Awareness Campaign. The final evaluation should make sure to check whether these activities were successfully implemented and if not, whether the expected outputs were achieved.

Effectiveness: Attainment of Objectives and Planned Results

14. The evaluation will assess the extent to which the project's objectives were effectively achieved or are expected to be achieved.

15. The evaluation will reconstruct the Theory of Change (ToC) of the project based on a review of project documentation and stakeholder interviews. The ToC of a project depicts the causal pathways from project outputs (goods and services delivered by the project) over outcomes (changes resulting from the use made by key stakeholders of project outputs) towards impact (changes in environmental benefits and living conditions). The ToC will also depict any intermediate changes required between project outcomes and impact, called intermediate states. The ToC further defines the external factors that influence change along the pathways, whether one result can lead to the next. These external factors are either drivers (when the project has a certain level of control) or assumptions (when the project has no control).

16. The assessment of effectiveness will be structured in three sub-sections:

    a. Evaluation of the achievement of direct outcomes as defined in the reconstructed ToC. These are the first-level outcomes expected to be achieved as an immediate result of project outputs.
    b. Assessment of the likelihood of impact using a *Review of Outcomes to Impacts* (ROtI) approach as summarized in Annex 8 of the TORs. Appreciate to what extent the project has to date contributed, and is likely in the future to further contribute to changes in stakeholder behaviour as a result of the project's direct outcomes, and the likelihood of those changes in turn leading to changes in the natural resource base, benefits derived from the environment and human living conditions.
    c. Evaluation of the achievement of the formal project overall objective, overall purpose, goals and component outcomes using the project's own results statements as presented in original logframe and any later versions of the logframe. This sub-section will refer back where applicable to sub-sections (a) and (b) to avoid repetition in the report. To measure achievement, the evaluation will use as much as appropriate the indicators for achievement proposed in the Logical Framework Matrix (Logframe) of the project, adding other relevant indicators as appropriate. Briefly explain what factors affected the project's success in achieving its objectives, cross-referencing as needed to more detailed explanations provided under Section F.

17. There are some effectiveness questions of specific interest which the evaluation should consider:

a. The project was considered ambitious given its context, timeframe, and budget. The MTE consultant was concerned that the participants were spread too thin and that people at all levels of the project reported being overloaded and under stress. This situation presented a risk that the project might end up producing numerous outputs with questionable effectiveness on IAS. To what extent did the availability of resources have an impact on the effective delivery of outputs contributing to IAS control and management?
b. The project appeared to have achieved a rather mixed level of success and impact at mid-term. From the Reviewer's perspective, part of this was a reflection of a project design that did not receive and/or incorporate adequate technical input. To what extent did the design phase effectively use the available resources to ensure a sound structure for the project?
c. Was the project successful in including measures of actual effectiveness toward reaching Outcomes and an Objective that are tangible and relevant in biological and economic terms to IAS?

Sustainability and replication

18. Sustainability is understood as the probability of continued long-term project-derived results and impacts after the external project funding and assistance ends. The evaluation will identify and assess the key conditions or factors that are likely to undermine or contribute to the persistence of benefits. Some of these factors might be direct results of the project while others will include contextual circumstances or developments that are not under control of the project but that may condition sustainability of benefits. The evaluation should ascertain to what extent follow-up work has been initiated and how project results will be sustained and enhanced over time. The reconstructed ToC will assist in the evaluation of sustainability.

19. Four aspects of sustainability will be addressed:

    a. *Socio-political sustainability.* Are there any social or political factors that may influence positively or negatively the sustenance of project results and progress towards impacts? Is the level of ownership by the main national and regional stakeholders sufficient to allow for the project results to be sustained? Are there sufficient government and stakeholder awareness, interests, commitment and incentives to execute, enforce and pursue the programmes, plans, agreements, monitoring systems etc. prepared and agreed upon under the project? The MTE observed that up to that point the project had established a very good track record for engaging local communities as project stakeholders. However, it did not seem likely to translate into sufficient socio-political support at the institutional level because proactive efforts had yet to be made to incorporate IAS into existing legal/policy frameworks or draft new legislation and soft law tools (e.g., codes of conduct. There seemed to be a need to for the project to strengthen relationships with stakeholder groups that have the capacity and inspiration to assume long-term ownership. A specific question would therefore address the extent to which the project was successful in ensuring long-term ownership.

    b. *Financial resources.* To what extent are the continuation of project results and the eventual impact of the project dependent on continued financial support? What is the likelihood that adequate financial resources[54] will be or will become available to implement the programmes, plans, agreements, monitoring systems etc. prepared and agreed upon under the project? Are there any financial risks that may jeopardize sustenance of project results and onward progress towards impact?

    c. *Institutional framework.* To what extent is the sustenance of the results and onward progress towards impact dependent on issues relating to institutional frameworks and governance? How robust are the institutional achievements such as governance structures and processes, policies, sub-regional agreements, legal and accountability frameworks etc. required to sustaining project results and to lead those to impact on human behaviour and environmental resources? The project design did not explicitly include actions to secure institutionalisation of staffing positions, programmes, or activities initiated or expanded through the GEF project. According to the MTE, this needed to be achieved through development and implementation of a strategic sustainability plan in the near term. A specific question of interest is therefore the extent to

[54] Those resources can be from multiple sources, such as the public and private sectors, income generating activities, other development projects etc.

which this foundation can be used to build a long-term capacity for changing human behaviour in such a manner that it substantially reduces the risk of IAS introduction, spread, and impact

d. *Environmental sustainability.* Are there any environmental factors, positive or negative, that can influence the future flow of project benefits? Are there any project outputs or higher level results that are likely to affect the environment, which, in turn, might affect sustainability of project benefits? Are there any foreseeable negative environmental impacts that may occur as the project results are being up-scaled? To what extent did the project contribute to address the three pathways of intentional and unintentional introduction of IAS at national and regional scale (horticulture, tourism, and the pet/animal trade) in order to substantially reduce this risk in the medium and long term? To what extent is the low priority assigned to IAS at institutional level impacting the environmental sustainability of the project in the medium and long term?

20. Catalytic role and replication. The *catalytic role* of GEF-funded interventions is embodied in their approach of supporting the creation of an enabling environment and of investing in pilot activities which are innovative and showing how new approaches can work. UNEP and the GEF also aim to support activities that upscale new approaches to a national, regional or global level, with a view to achieve sustainable global environmental benefits. The evaluation will assess the catalytic role played by this project, namely to what extent the project has:

    a) *catalysed behavioural changes* in terms of use and application by the relevant stakeholders of: i) technologies and approaches show-cased by the demonstration projects; ii) strategic programmes and plans developed; and iii) assessment, monitoring and management systems established at national and regional level; provided *incentives* (social, economic, market based, competencies etc.) to contribute to catalysing changes in stakeholder behaviour;
    b) contributed to *institutional changes.* An important aspect of the catalytic role of the project is its contribution to institutional uptake or mainstreaming of project-piloted approaches in the regional and national demonstration projects;
    c) contributed to *policy changes* (on paper and in implementation of policy); contributed to sustained follow-on financing (*catalytic financing*) from Governments, the GEF or other donors; created opportunities for particular individuals or institutions ("*champions*") to catalyse change (without which the project would not have achieved all of its results).

21. *Replication*, in the context of GEF projects, is defined as lessons and experiences coming out of the project that are replicated (experiences are repeated and lessons applied in different geographic areas) or scaled up (experiences are repeated and lessons applied in the same geographic area but on a much larger scale and funded by other sources). The evaluation will assess the approach adopted by the project to promote replication effects and appreciate to what extent actual replication has already occurred or is likely to occur in the near future. What are the factors that may influence replication and scaling up of project experiences and lessons?

22. Considering the regional nature of the project, specific questions to be considered are the extent to which the project team developed an explicit plan for transferring lessons learned throughout the Caribbean and the extent to which the project attracted the attention and buy-in of decision makings in the project countries and at regional level.

Efficiency

23. The evaluation will assess the cost-effectiveness and timeliness of project execution. It will describe any cost- or time-saving measures put in place in attempting to bring the project as far as possible in achieving its results within its programmed budget and (extended) time. It will also analyse how delays, if any, have affected project execution, costs and effectiveness. Wherever possible, costs and time over results ratios of the project will be compared with that of other similar interventions. The evaluation will give special attention to efforts by the project teams to make use of/build upon pre-existing institutions, agreements and partnerships, data sources, synergies and complementarities with other initiatives, programmes and projects etc. to increase project efficiency all within the context of project execution.

24. The MTE considered that the project had a relatively low budget for its scale and Objectives/Outcomes and therefore it had to be cost-efficient to succeed. Some of the project elements were built upon efforts that were already underway (e.g., Jamaican iguana, some national strategies, CABI Compendium) and had previously garnered financial and logistical support. However, The MTE noted that funds were being spent behind projected rates. In some cases this was due to changes in project direction. In other instances the reasons for lack of fund allocation were not readily apparent. It was recommended that the status of allocated/unspent monies be assessed as soon as possible and those funds applied toward priority activities in order to ensure that they would be efficiently used during the term of this project. A specific question to consider is therefore the extent to which funds were efficiently disbursed and targeted at priority activities.

Factors and processes affecting project performance

25. Preparation and readiness. This criterion focusses on the quality of project design and preparation. Were project stakeholders[55] adequately identified? Were the project's objectives and components clear, practicable and feasible within its timeframe? Were the capacities of executing agencies properly considered when the project was designed? Was the project document clear and realistic to enable effective and efficient implementation? Were the partnership arrangements properly identified and the roles and responsibilities negotiated prior to project implementation? Were counterpart resources (funding, staff, and facilities) and enabling legislation assured? Were adequate project management arrangements in place? Were lessons from other relevant projects properly incorporated in the project design? What factors influenced the quality-at-entry of the project design, choice of partners, allocation of financial resources etc.? Were GEF environmental and social safeguards considered when the project was designed[56]? Was the available technical knowledge sufficiently utilised during the project design phase (also see point 23 above)?

26. Project implementation and management. This includes an analysis of implementation approaches used by the project, its management framework, the project's adaptation to changing conditions (adaptive management), the performance of the implementation arrangements and partnerships, relevance of changes in project design, and overall performance of project management. The evaluation will:

    a. Ascertain to what extent the project implementation mechanisms outlined in the project document have been followed and were effective in delivering project outputs and outcomes. Were pertinent adaptations made to the approaches originally proposed?
    b. Evaluate the effectiveness and efficiency of project management by CABI and how well the management was able to adapt to changes during the life of the project.
    c. Assess the role and performance of the units and committees established and the project execution arrangements at all levels.
    d. Assess the extent to which project management as well as national partners responded to direction and guidance provided by the Steering Committees and UNEP supervision recommendations.
    e. Identify operational and political / institutional problems and constraints that influenced the effective implementation of the project, and how the project partners tried to overcome these problems. How did the relationship between the project management team (CABI) and the national coordinators develop?
    f. Assess the extent to which MTE recommendations were followed in a timely manner.
    g. Assess the extent to which the project implementation met GEF environmental and social safeguards requirements.

27. Stakeholder participation and public awareness. The term stakeholder should be considered in the broadest sense, encompassing project partners, government institutions, private interest groups, local communities etc. The TOC analysis should assist the evaluators in identifying the key stakeholders and their respective roles, capabilities and motivations in each step of the causal pathway from activities to achievement of outputs and

[55] Stakeholders are the individuals, groups, institutions, or other bodies that have an interest or stake in the outcome of the project. The term also applies to those potentially adversely affected by the project.
[56] http://www.thegef.org/gef/node/4562

outcomes to impact. The assessment will look at three related and often overlapping processes: (1) information dissemination between stakeholders, (2) consultation between stakeholders, and (3) active engagement of stakeholders in project decision making and activities.

The evaluation will specifically assess:

i. the approach(es) used to identify and engage stakeholders in project design and implementation. What were the strengths and weaknesses of these approaches with respect to the project's objectives and the stakeholders' motivations and capacities? What was the achieved degree and effectiveness of collaboration and interactions between the various project partners and stakeholders during design and implementation of the project?

ii. the degree and effectiveness of any public awareness activities that were undertaken during the course of implementation of the project; or that are built into the assessment methods so that public awareness can be raised at the time the assessments will be conducted;

iii. how the results of the project (strategic programmes and plans, monitoring and management systems, sub-regional agreements etc.) promote participation of stakeholders in decision making.

28. **Country ownership and driven-ness.** The evaluation will assess the performance of national partners involved in the project, as relevant:

    a) In how far has the national partners assumed responsibility for the project and provided adequate support to project execution, including the degree of cooperation received from the various public institutions involved in the project and the timeliness of provision of counter-part funding to project activities?

    b) To what extent has the national and regional political and institutional framework been conducive to project performance?

    c) How responsive were the national partners to CABI coordination and guidance, and to UNEP supervision?

29. Financial planning and management. Evaluation of financial planning requires assessment of the quality and effectiveness of financial planning and control of financial resources throughout the project's lifetime. The assessment will look at actual project costs by activities compared to budget (variances), financial management (including disbursement issues), and co-financing. The evaluation will:

    a) Verify the application of proper standards (clarity, transparency, audit etc.) and timeliness of financial planning, management and reporting to ensure that sufficient and timely financial resources were available to the project and its partners;

    b) Appreciate other administrative processes such as recruitment of staff, procurement of goods and services (including consultants), preparation and negotiation of cooperation agreements etc. to the extent that these might have influenced project performance;

    c) Present to what extent co-financing has materialized as expected at project approval (see Table 1, 4 and 5). Report country co-financing to the project overall, and to support project activities at the national level in particular. The evaluation will provide a breakdown of final actual costs and co-financing for the different project components (see tables in Annex 4).

    d) Describe the resources the project has leveraged since inception and indicate how these resources are contributing to the project's ultimate objective. Leveraged resources are additional resources—beyond those committed to the project itself at the time of approval—that are mobilized later as a direct result

of the project. Leveraged resources can be financial or in-kind and they may be from other donors, NGO's, foundations, governments, communities or the private sector.

30. Analyse the effects on project performance of irregularities (if any) in procurement, use of financial resources and human resource management, and the measures taken by CABI or UNEP to prevent such irregularities in the future. Appreciate whether the measures taken were adequate.

31. UNEP supervision and backstopping. The purpose of supervision is to verify the quality and timeliness of project execution in terms of finances, administration and achievement of outputs and outcomes, in order to identify and recommend ways to deal with problems which arise during project execution. Such problems may be related to project management but may also involve technical/institutional substantive issues in which UNEP has a major contribution to make. The evaluators should assess the effectiveness of supervision and administrative and financial support provided by UNEP including:

    a. The adequacy of project supervision plans, inputs and processes;
    b. The emphasis given to outcome monitoring (results-based project management);
    c. The realism and candour of project reporting and ratings (i.e. are PIR ratings an accurate reflection of the project realities and risks);
    d. The quality of documentation of project supervision activities; and
    e. Financial, administrative and other fiduciary aspects of project implementation supervision.

32. **Monitoring and evaluation.** The evaluation will include an assessment of the quality, application and effectiveness of project monitoring and evaluation plans and tools, including an assessment of risk management based on the assumptions and risks identified in the project document. The evaluation will appreciate how information generated by the M&E system during project implementation was used to adapt and improve project execution, achievement of outcomes and ensuring sustainability.

M&E is assessed on three levels:

a) *M&E Design*. Projects should have sound M&E plans to monitor results and track progress towards achieving project objectives. An M&E plan should include a baseline (including data, methodology, etc.), SMART indicators and data analysis systems, and evaluation studies at specific times to assess results. The time frame for various M&E activities and standards for outputs should have been specified. The evaluators should use the following questions to help assess the M&E design aspects:

- Quality of the project logframe (original and possible updates) as a planning and monitoring instrument; analyse, compare and verify correspondence between the original logframe in the Project Document, possible revised logframes and the logframe used in Project Implementation Review reports to report progress towards achieving project objectives;
- SMART-ness of indicators: Are there specific indicators in the logframe for each of the project objectives? Are the indicators measurable, attainable (realistic) and relevant to the objectives? Are the indicators time-bound?

- Adequacy of baseline information: To what extent has baseline information on performance indicators been collected and presented in a clear manner? Was the methodology for the baseline data collection explicit and reliable?
- Arrangements for monitoring: Have the responsibilities for M&E activities been clearly defined? Were the data sources and data collection instruments appropriate? Was the frequency of various monitoring activities specified and adequate? In how far were project users involved in monitoring?

- Arrangements for evaluation: Have specific targets been specified for project outputs? Has the desired level of achievement been specified for all indicators of objectives and outcomes? Were there adequate provisions in the legal instruments binding project partners to fully collaborate in evaluations?

- Budgeting and funding for M&E activities: Determine whether support for M&E was budgeted adequately and was funded in a timely fashion during implementation.

b) *M&E Plan Implementation*. The evaluation will verify that:

- the M&E system was operational and facilitated timely tracking of results and progress towards projects objectives throughout the project implementation period;

- annual project reports and Progress Implementation Review (PIR) reports were complete, accurate and with well justified ratings;

- the information provided by the M&E system was used during the project to improve project performance and to adapt to changing needs.

c) *Use of GEF Tracking Tools*. These are portfolio monitoring tools intended to roll up indicators from the individual project level to the portfolio level and track overall portfolio performance in focal areas. Each focal area has developed its own tracking tool[57] to meet its unique needs. Agencies are requested to fill out at CEO Endorsement (or CEO approval for MSPs) and submit these tools again for projects at mid-term and project completion. The evaluation will verify whether UNEP has duly completed the relevant tracking tool for this project, and whether the information provided is accurate.

Complementarities with UNEP strategies and programmes

33. UNEP aims to undertake GEF funded projects that are aligned with its own strategies. The evaluation should present a brief narrative on the following issues:

a. *Linkage to UNEP's Expected Accomplishments and POW 2010-2011 and 2012-2013.* The UNEP MTS specifies desired results in six thematic focal areas. The desired results are termed Expected Accomplishments. Using the completed ToC/ROtI analysis, the evaluation should comment on whether the project makes a tangible contribution to any of the Expected Accomplishments specified in the UNEP MTS. The magnitude and extent of any contributions and the causal linkages should be fully described. Whilst it is recognised that UNEP GEF projects designed prior to the production of the UNEP Medium Term Strategy 2010-2013 (MTS)[58] would not necessarily be aligned with the Expected Accomplishments articulated in those documents, complementarities may still exist and it is still useful to know whether these projects remain aligned to the current MTS.

b. *Alignment with the Bali Strategic Plan (BSP)*[59]. The outcomes and achievements of the project should be briefly discussed in relation to the objectives of the UNEP BSP.

c. *Gender*. Ascertain to what extent project design, implementation and monitoring have taken into consideration: (i) possible gender inequalities in access to and the control over natural resources; (ii) specific vulnerabilities of women and children to environmental degradation or disasters; and (iii) the role of women in mitigating or adapting to environmental changes and engaging in environmental protection and rehabilitation. Appreciate whether the intervention is likely to have any lasting differential impacts on gender equality and the relationship between women and the environment. To what extent do unresolved gender inequalities affect sustainability of project benefits?

d. *South-South Cooperation.* This is regarded as the exchange of resources, technology, and knowledge between developing countries. Briefly describe any aspects of the project that could be considered as examples of South-South Cooperation.

[57] http://www.thegef.org/gef/tracking_tools
[58] http://www.unep.org/PDF/FinalMTSGCSS-X-8.pdf
[59] http://www.unep.org/GC/GC23/documents/GC23-6-add-1.pdf

The Consultants' Team

34. For this evaluation, the evaluation team will consist of one consultant. The consultant should have experience in project evaluation. A Master's degree or higher in the area of environmental sciences or a related field and at least 15 years' experience in environmental management, with a preference for specific expertise in the area of invasive species is required. Highly desirable would be invasive species experience in island settings and a working knowledge of the Spanish language.

35. By undersigning the service contract with UNEP/UNON, the consultants certify that they have not been associated with the design and implementation of the project in any way which may jeopardize their independence and impartiality towards project achievements and project partner performance. In addition, they will not have any future interests (within six months after completion of the contract) with the project's executing or implementing units.

Evaluation Deliverables and Review Procedures

36. The evaluation consultant will prepare an inception report (see Annex 2(a) of TORs for Inception Report outline) containing a thorough review of the project context, project design quality, a draft reconstructed Theory of Change of the project, the evaluation framework and a tentative evaluation schedule.

37. The review of design quality will cover the following aspects (see Annex 9 for the detailed project design assessment matrix):

    - Strategic relevance of the project
    - Preparation and readiness (see paragraph 25);
    - Financial planning (see paragraph 30);
    - M&E design (see paragraph 33(a));
    - Complementarities with UNEP strategies and programmes (see paragraph 34);
    - Sustainability considerations and measures planned to promote replication and upscaling (see paragraph 23).

38. The inception report will also present a draft, desk-based reconstructed Theory of Change of the project. It is vital to reconstruct the ToC *before* the most of the data collection (review of reports, in-depth interviews, observations on the ground etc.) is done, because the ToC will define which direct outcomes, drivers and assumptions of the project need to be assessed and measured to allow adequate data collection for the evaluation of project effectiveness, likelihood of impact and sustainability.

39. The evaluation framework will present in further detail the evaluation questions under each criterion with their respective indicators and data sources. The evaluation framework should summarize the information available from project documentation against each of the main evaluation parameters. Any gaps in information should be identified and methods for additional data collection, verification and analysis should be specified.

40. The inception report will also present a tentative schedule for the overall evaluation process, including a draft programme for the country visit and tentative list of people/institutions to be interviewed.

41. The inception report will be submitted for review and approval by the Evaluation Office before the evaluation team travels to the closing workshop in Trinidad.

42. The main evaluation report should be brief (no longer than 35 pages – excluding the executive summary and annexes), to the point and written in plain English. The evaluation team will deliver a high quality report in English by the end of the assignment. The team will also provide the executive summary and the conclusions, lessons learned and recommendations section in Spanish. The report will follow the annotated Table of Contents outlined in Annex 1. It must explain the purpose of the evaluation, exactly what was evaluated and the methods used (with their limitations). The report will present evidence-based and balanced findings, consequent

conclusions, lessons and recommendations, which will be cross-referenced to each other. The report should be presented in a way that makes the information accessible and comprehensible. Any dissident views in response to evaluation findings will be appended in footnote or annex as appropriate. To avoid repetitions in the report, the authors will use numbered paragraphs and make cross-references where possible.

43. Review of the draft evaluation report. The evaluation team will submit the zero draft report latest two weeks after attending the closing workshop in Trinidad on 31 March- 4 April 2014 to the UNEP EO and revise the draft following the comments and suggestions made by the EO. Once a draft of adequate quality has been accepted, the EO will share this first draft report with the UNEP Task Manager, who will ensure that the report does not contain any blatant factual errors. The UNEP Task Manager will then forward the first draft report to the other project stakeholders, in particular CABI and the national partners for review and comments. Stakeholders may provide feedback on any errors of fact and may highlight the significance of such errors in any conclusions. It is also very important that stakeholders provide feedback on the proposed recommendations and lessons. Comments would be expected within two weeks after the draft report has been shared. Any comments or responses to the draft report will be sent to the UNEP EO for collation. The EO will provide the comments to the evaluation team for consideration in preparing the final draft report.

44. The evaluation consultant will submit the final draft report no later than 2 weeks after reception of stakeholder comments. The consultant will prepare a response to comments, listing those comments not or only partially accepted by them that could therefore not or only partially be accommodated in the final report. They will explain why those comments have not or only partially been accepted, providing evidence as required. This response to comments will be shared by the EO with the interested stakeholders to ensure full transparency.

45. Submission of the final Terminal Evaluation report. The final report shall be submitted by Email to the Head of the Evaluation Office, who will share the report with the Director, UNEP/GEF Coordination Office and the UNEP/DEPI Task Manager. The Evaluation Office will also transmit the final report to the GEF Evaluation Office.

46. The final evaluation report will be published on the UNEP Evaluation Office web-site www.unep.org/eou. Subsequently, the report will be sent to the GEF Office of Evaluation for their review, appraisal and inclusion on the GEF website.
47. As per usual practice, the UNEP EO will prepare a quality assessment of the first draft and final draft report, which is a tool for providing structured feedback to the evaluation consultants. The quality of the report will be assessed and rated against the criteria specified in Annex 4.

48. The UNEP Evaluation Office will assess the ratings in the final evaluation report based on a careful review of the evidence collated by the evaluation consultant and the internal consistency of the report. Where there are differences of opinion between the evaluator and UNEP Evaluation Office on project ratings, both viewpoints will be clearly presented in the final report. The UNEP Evaluation Office ratings are the final ratings that will be submitted to the GEF Office of Evaluation.

Logistical arrangement

49. This Terminal Evaluation will be undertaken by an independent evaluation consultant contracted by the UNEP Evaluation Office. The consultant will work under the overall responsibility of the UNEP Evaluation Office and will consult with the EO on any procedural and methodological matters related to the evaluation. It is, however, the consultants' individual responsibility to arrange for their travel, visa, obtain documentary evidence, plan meetings with stakeholders, organize field visits (if any), and any other logistical matters related to the assignment. The UNEP Task Manager and CABI will, where possible, provide logistical support (introductions, meetings, transport etc.) for the country visit, allowing the consultants to conduct the evaluation as efficiently and independently as possible.

Schedule of the evaluation

50. The consultant will be hired under an individual Special Service Agreement (SSA). There are two options for contract and payment: lumpsum or "fees only".

51. Lumpsum: The contract covers both fees and expenses such as travel, per diem (DSA) and incidental expenses which are estimated in advance. The consultants will receive an initial payment covering estimated expenses upon signature of the contract.

52. Fee only: The contract stipulates consultant fees only. Air tickets will be purchased by UNEP and 75% of the DSA for each authorised travel mission will be paid up front. Local in-country travel and communication costs will be reimbursed on the production of acceptable receipts. Terminal expenses and residual DSA entitlements (25%) will be paid after mission completion.

53. The payment schedule for both consultants will be linked to the acceptance of the key evaluation deliverables by the Evaluation Office:
    - Final inception report: 20 percent of agreed total fee
    - First draft main evaluation report: 40 percent of agreed total fee
    - Final main evaluation report: 40 percent of agreed total fee

54. In case the consultants are not able to provide the deliverables in accordance with these TORs, in line with the expected quality standards by the UNEP Evaluation Office, payment may be withheld at the discretion of the Head of the Evaluation Office until the consultants have improved the deliverables to meet UNEP's quality standards.

55. If the consultants fail to submit a satisfactory final product to UNEP in a timely manner, i.e. within one month after the end date of their contract, the Evaluation Office reserves the right to employ additional human resources to finalize the report, and to reduce the consultants' fees by an amount equal to the additional costs borne by the Evaluation Office to bring the report up to standard.

ANNEX B – TASK MANAGER AND EXECUTING PROJECT OFFICERS

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Trinidad and Tobago	Mrs. Velda Ferguson-Dewsbury Consultant w/ Research Division **Ministry of Food Production** Central Experiment Station Caroni North Bank Road, Centeno Republic of Trinidad and Tobago Phone: +1 (868) 642-9217 Email: veldafergusondewsbury@yahoo.com	Mrs. Audine Mootoo Director, Research Division **Ministry of Food Production** Central Experiment Station Caroni North Bank Road, Centeno Republic of Trinidad and Tobago Phone: +1 (868) 642 1646, 642 6008 Email: AMootoo@fp.gov.tt

ANNEX C – INTERVIEWEES

NAME	POSITION AGENCY ADDRESS	EMAIL SKYPE PHONE	RELATIONSHIP OR POSITION WITH PROJECT / GOVERNMENT AND STAKEHOLDERS	METHOD
On Regional Aspect and/or General Project Preparation and Management and/or Policies				
Mrs. Kristin McLaughlin	GEF Liaison and Task Manager **UN Environmental Program** 900 17th Street, NW, Suite 506 Washington, DC 20006	kristin.mclaughlin@unep.org Phone: +1 (202) 974-1312	Project's Task Manager	In person (Twice at her office in DC)
Naitram (Bob) Ramnanan	**CABI Caribbean and Central America** Gordon Street Curepe Trinidad	N.Ramnanan@cabi.org Phone: +1 (868) 645-7628 Mobile: +1 (868) 367-1252	Director of Regional Executing Agency	In person
Arne Witt	IAS Coordinator CABI Kenya	a.witt@cabi.org Phone: +1 (254)20 7224 450	CABI's leading expert on IAS. Well recognized internationally.	In person (during workshop in Trinidad).
Mrs. Alessandra Vanzella-Khouri	Program Officer, SPAW **Caribbean Environment Program, UNEP** 14-20 Port Royal Street Kingston Jamaica			Skype
Dr. Jamie Reaser	Independent Consultant Conducted MtE.	-		Telephone
Mr. Yabadex Batista	CEO **Caribbean Biodiversity Fund** Nassau, Bahamas	ybatista_cbf@yahoo.com	Established in September 2012, The Caribbean Biodiversity Fund (CBF) is a regional endowment with the objective to provide a sustainable funding for biodiversity conservation in the protected areas of Bahamas, Dominican Republic, Jamaica, Saint Lucia, Saint Kitts and Nevis, and Saint Vincent and the Grenadines.	Skype
Ms. Safiya Sawney	Assistant Coordinator Secretariat **Caribbean Challenge Initiative (CCI)** Saint George's Grenada	safiya.sawney@gmail.com Grenada: +1 (473) 416 3159 USA: + 1 (718) 360 7941		Skype
Dr. Georgina Bustamante	Coordinator **Caribbean Marine Protected Area Management Network (CaMPAM)** Florida, USA	gbustamante09@gmail.com; gbustamante@gcfi.org; campam@gcfi.org Tel./fax (request) +1 (954) 963-3626		Telephone
Boris Fabres	Caribbean Regional Director **Island Conservation** Nassau The Bahamas	boris.fabres@islandconservation.org Phone: +1 (242) 325-2965 Mobile: +1 (242) 465-0412	IC is a well know conservation organization focused on eradication and, in The Bahamas, has worked in partnership with the BNT in Allen Cay. It is also collaborating with Dominican Republic and in Puerto Rico.	In person and by Skype (Interview took place during visit to The Bahamas)
Bahamas				
Frederick E. Arnett II	National Project Coordinator & Assistant Fisheries Officer **Department of Marine Resources** East Bay Street Nassau, The Bahamas	farnett.dmr@gmail.com Phone: +1 (242)393-1777	National Project Coordinator	In person

Michael Braynen	Director **Department of Marine Resources** East Bay Street Nassau, The Bahamas	MICHAELBRAYNEN@bahamas.gov.bs Phone: +1 (242)393-1777	Bahamas' Project Director; Member of the IPSC	In person
Mr. Philip S. Weech	Director **Bahamas Environment, Science and Technology (BEST) Commission** Ministry of the Environment and Housing 2nd Floor, Dockendale House West Bay Street	philipweech@bahamas.gov.bs Phone: +1 (242) 322 4546 / 397 5508	CBD Primary NFP & SBSTTA NFP; GEF Operational Focal Point.	In person
Stacy Lubin-Gray	**Ministry of Environment and Housing** Charlotte House Charlotte Street, Nassau The Bahamas	slubingray@gmail.com Phone: +1 (242)322-6005		In person
Krista Sherman	**Bahamas National Trust** West Settler's Way Freeport, Bahamas	ksherman@bnt.bs Phone: +1 (242)352-5438	She worked with Nicola Smith on the Lionfish pilot project, and continus to focus her work on this species on protected areas.	Preliminary, brief interview in Port of Spain. Email exchanges.
Lakeshia Anderson	**Bahamas National Trust** West Settler's Way Freeport, Bahamas	landerson@bnt.bs Phone: +1 (242)352-5438	Mrs. Anderson was the first National Project Coordinator for MTIASIC in The Bahamas. During the past two years she has underatking work on protected areas with the BNT, including some work on managing IAS.	Skype.
Dominican Republic				
Mr. José Manuel Mateo	Director of Biodiversity and Wildlife, **Ministerio de Medio Ambiente y Recursos Naturales** Avenida Cayetano Germosén esq. Avenida Gregorio Luperón, Sector El Pedregal Santo Domingo, República Dominicana	jose.mateo@ambiente.gob.do CC to: sarah.diaz@ambiente.gob.do phone: +1 (809) 5670555, 5674300	Dominican Republic MTIASIC Project Director; Focal Point to CBD.	In person
Carlos Rijo Güílamo	National Coordinator, MTIASIC Project **Ministerio de Medio Ambiente y Recursos Naturales** Avenida Cayetano Germosén esq. Avenida Gregorio Luperón, Sector El Pedregal Santo Domingo, República Dominicana	Carlos.rijo@ambiente.gob.do phone: +1 (809) 567-4300 Ext. 7382 Mobile: +1 (809) 501-9455	National Coordinator	In person
Mrs. Marina Hernández	Director, Genetic Resources Division **Ministerio de Medio Ambiente y Recursos Naturales** Avenida Cayetano Germosén esq. Avenida Gregorio Luperón, Sector El Pedregal Santo Domingo, República Dominicana	marina.hernandez@ambiente.gob.do Phone: +1 (809) 567-4300	CBD's National Focal Point to CHM and ABS	In person
Mr. Ricardo García	Director Jardín Botánico Nacional Santo Domingo República Dominicana	acacia_rg@hotmail.com jardinbotanico@jbn.gob.do Phone: +1 (809) 385-2611	Member of the National Steering Committee/IAS Working Group	In person

Mrs. Celeste Mir	Director Museo Nacional de Historia Natural Av.César Nicolás Penson Santo Domingo Dominican Republic	c.mir@mnhn.gov.do Phone: +1 (809) 689-0106	Under Mrs. Mir leadership, the Museum led the preparation of the National IAS Strategy and outreach work in selected regions. The museum contributed with significant match to the project.	In person
Yolanda León	Chair, Board of Directors **Grupo Jaragua** Calle El Vergel 33, Ensanche El Vergel Santo Domingo, Distrito Nacional República Dominicana	ymleon@gmail.com Phone: +1 (809) 472-1036	Participated in project activities. Mr. León is a well known Dominican scientist and has a monitoring project in Cabrito Island aimed at demonstrating the benefits of invasive vertebrate eradication. Mrs. Leon has been granted funds from CEPF for monitoring post eradication impacts in Cabritos.	In person
Francisco Núñez	**The Nature Conservancy** Doctores Mallen Guerra #235 Arroyo Hondo, Santo Domingo República Dominicana	fnunez@tnc.org Phone: +1 (809) 541-7666	participated/supported project activities, supported IAS work in some islands.	In person
Mrs. Kirsty Swinnerton	**Island Conservation** Puerto Rico	kirsty.swinnerton@islandconservation.org Mobile: +1 (831) 454-6640	Mrs. Swinnerton is an expert on IAS eradication and fully involved in the Cabritos Island pilot project.	In person (Interview took place in Port of Spain during workshop)
Jamaica				
Mrs. Nelsa English-Johnson	National Project Coordinator, MTIASIC **National Environment and Planning Agency** 10 Caledonia Ave, Kingston 5 Jamaica	nelsa.english@nepa.gov.jm nelsa.english Phone: +1(876) 7547540 ext. 2319 Mobile: +1 (876) 754 7505	National Project Coordinator	In person
Ms. Sheries Simpson	Manager, Projects Planning & Monitoring Branch**National Environment and Planning Agency**10 & 11 Caledonia Avenue, Kingston 5Jamaica	sasimpson@nepa.gov.jmsherissiPhone: +1 (876) 7547540 ext. 2336Mobile: +1 (876) 889 0880	Project Director, member of the IPSC	In person
Ms. Leonie Barnaby	Senior Director Environmental Management Division **Ministry of Water, Land, Environment and Climate Change** 16a Half Way Tree Road Kingston 5 Jamaica	emdmle@yahoo.com, emdmle@gmail.com Phone: +1 (876) 960 5632 3 + 1(876) 920 9117 +1 (876) 920 7267 +1 (876) 929 2884	Ms. Barnaby is Secondary NFP to the CBD and Operational Focal Point to the GEF.	In person
Jerome Smith	Manager, Protected Areas Branch **Ministry of Water, Land, Environment and Climate Change** 16A Half Way Tree Road Ave. Kingston 5 Jamaica	cgordon@nepa.gov.jm Phone: +1 (876) 754 7540; +1 (876) 754 7595	Primary NFP to CBD	In person
Dr. Kurt McLaren	Leader, Black River Morass Pilot Project Dept. Life Sciences **University of West Indies** Mona Jamaica	kurt.mclaren@uwimona.edu.jm		In person
Dayne Buddo	Leader, Lionfish Pilot Project Discovery Marine Lab **University of West Indies** Mona Jamaica	dbuddo@cwjamaica.com		In person

Kimberly Stephenson (on behalf of Byron Wilson)	Department of Life Sciences **University of West Indies** Mona Jamaica	kimberly.stephenson@mymona.uwi.edu byron.wilson@uwimona.edu.jm Phone: +1 (876) 434-7204	Head of Iguana Recovery Group.	In person
Saint Lucia				
Ulrike Krauss	MTIASIC National Project Coordinator (Consultant)	saintlucia.ias@gmail.com ulrike_krauss Phone: +1(758) 713 4308	National Project Coordinator	In person
Michael Bobb	Chief Forestry Officer Forestry Department **Ministry of Sustainable Development, Energy, Science & Technology** Gabriel Charles Forestry Complex, Union Castries, Saint Lucia	michaelbobb_2000@yahoo.com Phone: +1 (758) 468 5636 + 1 (758) 719 0579	National Project Director, member of the IPSC. Mr. Bobb is also Saint Lucia's Protected Area NFP before the CBD.	In person
Ms. Debra Charlery	Deputy Permanent Secretary **Ministry of Sustainable Development, Energy, Science and Technology** Ground Floor, Hewanorra House Trou Garnier Castries, Saint Lucia	Phone: +1 (758) 468 5840		In person
Caroline Eugene	Deputy Permanent Secretary **Ministry of Sustainable Development, Energy, Science and Technology** Ground Floor, Hewanorra House Trou Garnier Castries, Saint Lucia	caroline.eugene@gmail.com Phone: +1 (758) 451-8746	GEF Operational Focal Point	In person
Alwyn Dornelly	Forestry Department **Ministry of Sustainable Development, Energy, Science & Technology** Gabriel Charles Forestry Complex, Union Castries, Saint Lucia	alwin.dornelly@govt.lc dornelly_al@yahoo.com	Works on IAS issues for the Ministry	In person
Adams Toussaint	Forestry Department **Ministry of Sustainable Development, Energy, Science & Technology** Gabriel Charles Forestry Complex, Union Castries, Saint Lucia	toussaint@govt.lc Phone: +1 (758) 468-5636	Has been involved with the MTIASIC	In person
Samanthia Justin	Forestry Department **Ministry of Sustainable Development, Energy, Science & Technology** Gabriel Charles Forestry Complex, Union Castries, Saint Lucia	sajustin@gosl.gov.lc	Mrs. Justin has been involved in the project implementation.	In person
Roger Graveson	Consultant Botanist	rogergraveson@gmail.com	Prepared the "Survey of Invasive Alien Plants on Gros Piton' and manages a web site about Saint Lucia plants. Also conducted botanical surveys in thne off shore islands and the 'Survey of Ornamental Plants in Resorts and Hotels in Saint Lucia'.	In person
Matt Morton	**Durrell Wildlife Conservation Trust** Dennery Saint Lucia	mmorton@fastmail.fm	Engaged in the SLU Iguana Project among others involving IAS.	In person

Lyndon John	Lyndon John **Royal Society for the Protection of Birds (RSPB)** Castries, Saint Lucia	lynjohn1@yahoo.com phone: +1(758) 485 8788 Mobile: +1(758)486-8645	Mr. Johnson was the Saint Lucia's Project Director during the first two years of the project, and he is a very well-known conservationist form this country.	In person
Saphira Hunt	**Saint Lucia National Trust** P.O. Box 595 Castries Saint Lucia	saphita_hunt@hotmail.com Phone: 1 (758) 452-5005	Biosecurity Maria Island	In person
Trinidad and Tobago				
Ms. Audine Mootoo	**Ministry of Food Production** Director of Research, Central Experiment Station Caroni North Bank Road Centeno Trinidad	amootoo@gov.tt Ph: + 1 (868)715-2405	Project Director, member of the International Project Steering Committee (IPSC)	In person
Mrs. Velda Ferguson-Dewsbury	National Coordinator UNEP-GEF Project **Ministry of Food Production** Research Division, Central Experiment Station Caroni North Bank Road Centeno Trinidad	veldafergusondewsbury@yahoo.com Ph: +1 (868) 642-9217 Mobile: +1(868) 292 7478	Project National Coordinator	In person
Mr. Farzan Hosein	Team Leader, Nariva Swamp Pilot Project **Ministry of Food Production** Port of Spain Trinidad	cocoyea1982@hotmail.com	Self-explanatory	In person
Ms. Deanne Ramroop	Team Leader, Frosty Pod Rot Pilot Project **Ministry of Food Production** Crop Protection Centeno Trinidad	dramroop@hotmail.com Phone: +1 (868) 753-0949	Self-explanatory	In person
Mrs. Lori M Lee Lum	Community Education Officer **Institute of Marine Affairs (IMA)** Hilltop Lane, Chaguaramas Carenage Trinidad	lleelum@ima.gov.tt +1 (868) 634-4291 ext. 2413	Involved with Community outrach and Env. Education for Lionfish	In person
Mr. Allan Balfour	**Ministry of Food Production** Port of Spain Trinidad	allan_balfour@yahoo.co.uk	Works with introduced Giant African Snail	In person
Mr. William Trim	**Tobago House of Assembly** Division Of Agriculture, Marine Affairs And The Environment Dept Of Natural Resources and EnvironmentAssistant Conservator of Forests Tobago	trim20031@gmail.com Phone: +1 (868)660 - 2079Mobile: +1 (868)326-4364	Mr. Trim was the only officer from Tobago Island participating in the National Project Steering Committee for the Republic of Trinidad and Tobago.	In person

ANNEX D – PARTNERS AND STAKEHOLDERS

At regional / international level:

- ✓ Organization of Eastern Caribbean States (OECS)
- ✓ Caribbean Community (CARICOM)
- ✓ United States Department of Agriculture - Animal and Plant Health Inspection Service (USDA-APHIS)
- ✓ Caribbean Environment Programme (CEP), UNEP
- ✓ Food and Agriculture Organisation (FAO)
- ✓ Trust for Sustainable Livelihoods, Trinidad and Tobago (SUSTRUST)
- ✓ University of Florida – Institute of Food and Agricultural Sciences (UF-IFAS)
- ✓ Durrell Wildlife Conservation Trust (DWCT)
- ✓ Office National de la Chasse et de la Faune Sauvage (ONCFS), France
- ✓ University of the West Indies (UWI)
- ✓ Island Conservation, Caribbean Regional Program
- ✓ Critical Ecosystem Partnership Fund (CEPF) at Conservation International (CI)
- ✓ Centre for Resource Management and Environmental Studies (CERMES) at UWI
- ✓ Environmental Law Institute (ELI), Washington, D.C.
- ✓ Caribbean Invasive Species Working Group (CISWG)
- ✓ Caribbean Taxonomic Network (CARINET)
- ✓ Caribbean Pest Information Network CARIPESTNET
- ✓ Council of Presidents of the Environments (COPE)
- ✓ Florida A&M University (FAMU) – Center for Biological Control
- ✓ Institute of Marine Affairs (IMA), Trinidad and Tobago
- ✓ Invasives Information Network (I3N) of Inter-American Biodiversity Information Network (IABIN)
- ✓ Inter-American Institute for Cooperation on Agriculture (IICA)
- ✓ The World Conservation Union (IUCN)
- ✓ Regional Activity Centre – Regional Marine Pollution Emergency Information and Training Centre (RAC/REMPEITC);
- ✓ The Nature Conservancy (TNC)
- ✓ University of Florida (UF)-Institute of Food and Agricultural Sciences (UF-IFAS).

In the Bahamas:

- ✓ The Bahamas Environment, Science and Technology (BEST) Commission
- ✓ The Bahamas National Trust (BNT)
- ✓ The Nature Conservancy - Northern Caribbean Programme
- ✓ The Bahamas Reef Environmental Education Foundation

In Dominican Republic:

- ✓ Ministerio de Agricultura
- ✓ Dirección General de Aduanas
- ✓ National Botanical Garden
- ✓ National Dominican Zoo
- ✓ National Aquarium
- ✓ Grupo Jaragua
- ✓ The Nature Conservancy, Santo Domingo
- ✓ Santo Domingo Autonomous University
- ✓ Universidad Nacional Pedro Henríquez Ureña
- ✓ Dominican Technological Institute
- ✓ Eastern Central University
- ✓ Museo de Historia Natural
- ✓ Sociedad Ecológica del Cibao
- ✓ Fundación Loma Quita Espuela

- ✓ Sociedad Ornitológica de la Hispaniola (SOH)

In Jamaica:

- ✓ Environmental Management Division, Office of the Prime Minister
- ✓ Ministry of Agriculture and Fisheries: Fisheries Division, Forestry Department, Research and Development Unit, and Veterinary Services Division
- ✓ Caribbean Agricultural Research and Development Institute (CARDI)
- ✓ Institute of Jamaica
- ✓ University of the West Indies, Mona Campus (UWI Mona)
- ✓ Jamaica Customs Department
- ✓ Ministry of Health
- ✓ Maritime Authority of Jamaica
- ✓ Ministry of Education
- ✓ Ministry of Health
- ✓ Ministry of Finance and the Public Service
- ✓ Ministry of Water, Land, Environment, and Climate Change- Environmental Management Division
- ✓ Jamaica Defense Force- Coast Guard
- ✓ Urban Development Corporation (UDC)
- ✓ Rural Agricultural Development Authority
- ✓ Social Development Commission (St. Catherine and St. Elizabeth)
- ✓ High Schools: Buff Bay, Fair Prospect, Happy Grove, Maggotty, Newell, Old Harbour, Port Antonio and Waterford
- ✓ Primary Schools: Ascot, Bridgeport, Buff Bay, Greater Portmore, Old Harbour Bay, Parrottee, Pondside, Port Antonio and Waterford. Manchioneal All-Age School
- ✓ Alloa Fishermen Cooperative Society
- ✓ Bird Life Jamaica
- ✓ Black River Area Communities: Black River Proper, Crawford, South Coast Safari Ltd., Middle Quarters, Parrottee, Pondside and Slipe
- ✓ Bluefields Bay Fishermen's Friendly Society
- ✓ Brown's Town Community College
- ✓ Caribbean Agricultural Research and Development Institute
- ✓ CITES Scientific Authority
- ✓ Discovery Bay Marine Laboratory
- ✓ Food For The Poor
- ✓ Hope Zoo
- ✓ Jamaica Iguana Recovery Group
- ✓ Jamaica 4H (Portland, St. Elizabeth and Trelawny)
- ✓ Jamaica Conservation Development Trust (JCDT)
- ✓ Montego Bay Marine Park Trust
- ✓ Oracabessa Foundation
- ✓ Portland Environment Protection Association
- ✓ Port Royal Marine Laboratory
- ✓ Rainforest Seafood
- ✓ Sandals Foundation
- ✓ Scotia Bank Foundation
- ✓ Super Clubs Group
- ✓ The Nature Conservancy (TNC)
- ✓ Tourism Product Development Company
- ✓ United States Peace Corps

In Saint Lucia:

- ✓ Coastal Zone Management Unit (CZMU)
- ✓ Customs and Excise Department, Ministry of Finance
- ✓ Ministry of Physical Development and the Environment

- ✓ Saint Lucia National Trust (SLNT)
- ✓ Saint Lucia Air and Sea Ports Authority (SLASPA)
- ✓ Saint Lucia Dive Association (SLDA)
- ✓ Soufriere Marina Management Authority (SMMA)
- ✓ Soufriere Regional Development Foundation (SRDF)
- ✓ Fauna and Flora International (FFI).

In Trinidad and Tobago:

- ✓ Ministry of Food Production (Divisions of Research, Fisheries, Extension, Training and information Services, and the Regional Administrations North South)
- ✓ Ministry of Environment and Water Resources, Forestry Division
- ✓ Institute of Marine Affairs (IMA)
- ✓ Environmental Management Authority (EMA)
- ✓ Point a Pierre Wildfowl Trust
- ✓ University of the West Indies (UWI), St Augustine Campus
- ✓ Tobago House of Assembly, Department of Natural Resources and the Environment
- ✓ Tobago House of Assembly, Division of Agriculture, Marine Affairs, Marketing and the Environment
- ✓ PETROTRIN
- ✓ University of Trinidad and Tobago
- ✓ Cocoa and Coffee Industry Board
- ✓ Trust for Sustainable Livelihoods (SusTrust).

ANNEX E – MTIASIC PROJECT "INITIAL" LOGFRAME (AS A REFERENCE ONLY)

COMPONENT 1: Development of National IAS Strategies						
Outcome 1: Increased national capacity to address potential risks posed to biodiversity of global significance from invasive alien species						
	Indicator	**Baseline**	**Mid-term target**	**End of Project target**	**Sources of verification**	**Risks and assumptions**
	•National IAS strategy and working group in place and operational	•No current national IAS strategies in existence (except Bahamas)	•n/a	•IAS working groups facilitating implementation of national strategies	•NISS and project reports produced and disseminated	
Output 1.1 National IAS working group established in each country	•National Steering Committee (NSC) established and operational (year 1) •National IAS group (developed from NSC) established and operational (year 4)	•None of the project countries has operational multi-agency coordination mechanism for IAS (except Jamaica)	•NSC operational and meeting regularly	•IAS working group meets regularly and facilitates inter-agency cooperation including private – public partnerships	•Project reports and NSC minutes	•Agencies concerned with IAS welcome collaboration and participate in NSC •Enabling political environment •Private sector recognizes long term benefits
Output 1.2 National IAS Strategy (NISS) produced for each country.	•NISS prepared and disseminated to stakeholders in each country (year 4) •Non-technical summary of NISS produced and distributed (year 4)	•No NISS in the project countries (except Bahamas).	•Content of NISS developed and in draft	•Final versions of full NISS and non-technical summary printed stakeholders •Annual IAS data contributions to the Invasive Species Compendium •National IAS legislation enacted.	•NISS document •Non-technical summary of NISS document	•Governments willing to adopt NISS •Stakeholders recognize need for unified national strategies

COMPONENT 2: Establishment of Caribbean Wide Cooperation and Strategy						
Outcome 2: Increased regional cooperation to reduce risk posed to biodiversity of global significance from invasive alien species						
	Indicator	**Baseline**	**Mid-term target**	**End of Project target**	**Sources of verification**	**Risks and assumptions**
	•Regional IAS strategy and cooperation mechanism established and operational	•No existing regional strategy for reducing risk from IAS	•n/a	•Regional strategy and cooperation mechanism operational	•CRISIS document produced, disseminated and being implemented	
Output 2.1 National and regional coordination mechanisms for a regional cooperation framework	•International Project Steering Committee (PSC) established and operational (year 1) •Regional IAS working groups established (year 1) •Regional cooperation mechanisms for IAS in place (year 4)	•No PSC • No regional working groups on environmental IAS (marine, aquatic, terrestrial); CISWG focuses on agricultural pests and has advanced network; no regional cooperation framework for environmental IAS	•PSC established operational •Regional working groups for environmental IAS established & operational	•PSC established & operational •Regional cooperation framework for environmental IAS in place	•PSC meeting reports •Working group reports •Project progress reports	•Commitment of project partners, particularly CISWG, to regional collaboration remains strong; no political or institutional constraints •Potential conflicts of interest can be minimized
Output 2.2 Draft region-wide invasive species strategies	•Draft CRISIS document, including marine, aquatic & terrestrial IAS, prepared & disseminated (year 4)	•No detailed treatment of marine, aquatic & terrestrial IAS in CRISIS document	•Regional strategies in preparation	•Revised CRISIS document prepared & disseminated	•Working group reports •Revised CRISIS document	•Working groups agree on regional strategies •CISWG is receptive to inputs to CRISIS document.

COMPONENT 3: Knowledge generation, management and dissemination						
Outcome 3: Access to data and best practice established, and public awareness of IAS strengthened						
	Indicator	**Baseline**	**Mid-term target**	**End of Project target**	**Sources of verification**	**Risks and assumptions**
	•IAS information available to stakeholders and public	•Limited availability and understanding of IAS information	•n/a	•IAS information widely available to stakeholders and public	•IAS information available in different media for public and stakeholders to access	
Output 3.1 Data, information and best practice on IAS management collated.	• Critical Situation Analysis (CSA) for each country finalized and disseminated (year 2) • Best Practice Guidelines on IAS management developed; booklet produced and disseminated (year 4)	•Draft CSAs prepared during PPG •No Best Practice Guidelines available	•CSAs completed & disseminated •Mid-term target for Best Practice Guidelines: to be produced in years 3 & 4)	• CSAs have informed Best Practice Guidelines & Regional Strategies (Output 2.2.) • Best Practice Guidelines produced and disseminated	• CSA document for each country • Booklet of Best Practice Guidelines	• Data available to complete CSAs • Timely provision of information from CSAs, regional strategies and pilot projects to inform Best Practice Guidelines
Output 3.2 Pilot findings, existing and externally funded IAS- related research at national and regional levels documented.	• Regional lionfish control strategy developed and disseminated (year 3) •Stakeholders (policymakers, practitioners) understand key findings and lessons learnt from pilot projects (year 4)	•No regional strategy for lionfish control •Solutions to IAS problems addressed by pilots are not well understood	•Lionfish pilot project findings documented •Stakeholder visits to all pilot sites	• Regional lionfish strategy disseminated to identified stakeholders (paper copy) and electronically (via website) • Key findings & lessons learnt disseminated to stakeholders • Stakeholder questionnaire shows good understanding of pilot projects	• Regional lionfish strategy (paper and electronic versions) • Technical reports on national pilots • Key lessons learnt available to stakeholders via website •Questionnaire results	• Bahamas and Jamaica cooperate effectively on lionfish • Effective lionfish control strategy is identified by pilot projects • Public interest in pilot projects is fostered and maintained
Output 3.3 Electronic networking systems, including linkages to GISP, GISIN and IABIN established.	•Project website operational (year 1) •Linkages to GISP, GISIN and IABIN websites •Project findings disseminated through Invasive Species Compendium (ISC)	•No project website •No linkages to other databases •ISC under development	•Project website for internal use •Linkages to other websites functional •ISC launched	•Project website available as global resource •Up-to-date project information provided to other databases •Project findings included in ISC	•Project website •Project information on IABIN and GISIN websites •Content of ISC	•Target groups motivated to participate and make use of electronic media •Global demand for IAS information available electronically •GISP, IABIN & GISIN websites

						can accommodate project information •ISC development continues on schedule
Output 3.4 Public communication media & measures developed.	•Pilot project activities and findings disseminated through public communication media •Public awareness of IAS increased •Private sector actively engaged	•Little or no publicity of the IAS problems addressed by the pilot projects •Low public awareness of IAS issues	•Public awareness baselines assessed •Target stakeholders agreed, including in private sector	•Public awareness of pilots increased by 20%	•Publicity materials •Data on levels of public awareness at beginning & end of project	•Low initial levels of public awareness •General public receptive to information on environmental issues

COMPONENT 4: Prevention of new IAS introductions in terrestrial, freshwater and marine systems.						
Outcome 4: Increased capacity to strengthen prevention of new IAS introductions						
	Indicator	**Baseline**	**Mid-term target**	**End of Project target**	**Sources of verification**	**Risks and assumptions**
	•Human & technical capacity to prevent biological invasions strengthened • Prevention or early detection & response to invasions by target IAS in pilot areas	•No staff in target areas trained specifically in IAS prevention methods •Pilot areas free of target IAS	•n/a	•Staff & trainers trained with assigned IAS responsibilities in relevant institutions and private sector •Monitoring plans in place & operational	•Monitoring plan being implemented	
Output 4.1 National capacity to prevent biological invasions strengthened (Trinidad & Tobago, Saint Lucia).	**St Lucia pilot:** •Increased capacity of field staff to monitor for biological invasions •Continued absence of IAS threatening rare endemic reptiles on Maria Islands pilot site (10 hectares)	**St Lucia:** •No IAS posing threat to rare endemic species •No systematic monitoring in place	**St Lucia:** •No IAS posing threat to rare endemic species •Baseline survey completed by end year 1 •Staff trained •Detailed activity plan in place •Private sector engaged	**St Lucia:** •No IAS posing threat to rare endemic species •Monitoring plan developed, implemented, with buy-in from majority of stakeholders	**St Lucia:** •Project reports •Monitoring plan	**St Lucia:** •No IAS posing threat to rare endemic reptiles are present on Maria Island at start of project
	Trinidad & Tobago pilot: •Increased ability of stakeholders to detect and report occurrences of Frosty Pod Rot (FPR) for all cocoa growing areas of T & T – 6,900ha •National emergency plan developed and operational	**Trinidad & Tobago:** •FPR absent from Trinidad & Tobago •Little local knowledge about FPR •No emergency plan in place	**Trinidad & Tobago:** •FPR absent from Trinidad & Tobago •Rapid survey completed by end year 1 •Trainers trained •Private sector engaged •Pathway analysis completed •Hotline established	**Trinidad & Tobago:** •FPR absent from Trinidad & Tobago •3 trainers & 60 stakeholders trained in field identification & reporting of FPR •Continuous monitoring system for FPR in place with private sector buy-in	**Trinidad & Tobago:** •Database of survey results •Monitoring records •Project reports	**Trinidad & Tobago:**

COMPONENT 5: Early detection, rapid response and control of IAS impacts						
Outcome 5: Increased capacity to detect, respond, control and manage IAS impacting globally significant biodiversity						
	Indicator	**Baseline**	**Mid-term target**	**End of Project target**	**Sources of verification**	**Risks and assumptions**
	•Improved control & management of IAS	•No coordinated control and response to IAS	•n/a	•Management and monitoring plans in place	•Management plans being implemented	
Output 5.1 Incipient invasion of marine IAS detected and prevented (Trinidad & Tobago)	**Trinidad & Tobago pilot:** •Populations of Caulerpa taxifolia tested to identify non-native strain •Non-native strain eradicated where present •Monitoring system developed and operational (coastal areas of T&T with emphasis on west coast)	**Trinidad & Tobago:** •Unknown strain of Caulerpa in coastal waters	**Trinidad & Tobago:** •Distribution of non-native strain surveyed by end year 1 •Field staff trained in control methods	**Trinidad & Tobago:** •Non-native populations of Caulerpa eradicated •Regrowth of seagrass beds •Monitoring system in place to detect re-occurrences	**Trinidad & Tobago:** •Survey data •Project reports	**Trinidad & Tobago:** •Recent expansion of Caulerpa populations assumed to be non-native invasive strain
Output 5.2 Populations of invasive animals and plants (Dominican Republic, Jamaica, Saint Lucia) eradicated	**Dominican Republic pilot:** •Abundance & distribution of threatened native species (birds & reptiles) in pilot sites (Alto Velo, 100ha), Cabritos, 2,400 ha) determined (baseline) •Presence and abundance of target IAS determined (baseline) •Eradication strategies developed & implemented •Post-eradication monitoring of IAS and threatened native species	**Dominican Republic:** •Native species (e.g. Anolis lizard) threatened by IAS •Current status of IAS in pilot sites unknown	**Dominican Republic:** •Baseline data available by end year 1 •Eradication strategy developed	**Dominican Republic:** •Post-eradication monitoring data available •Target IAS absent from pilot sites •Increased abundance of species threatened by target IAS	**Dominican Republic:** •Baseline survey data •Post-eradication monitoring data •Project reports	**Dominican Republic:** •Invasive mammals and plants at pilot sites adversely affect threatened native species •Local communities support project and agree to keep goats off pilot site areas

	Jamaica pilot: •Abundance & distribution of native iguana on Goat Islands (52,000ha) determined (baseline) •Eradication strategies for target IAS developed & implemented •Adaptive management plan for Goat Islands in place	**Jamaica:** •Non-native predators threatening native iguanas on Goat Islands •Current status of IAS in pilot sites unknown	**Jamaica:** •Baseline data available by end year 1 •Eradication strategy developed •Rangers & other stake-holders trained	**Jamaica:** •Post-eradication monitoring data available •Target IAS absent from Goat Islands •Adaptive management plan in place	**Jamaica:** •Baseline survey data •Post-eradication monitoring data •Project reports •Adaptive management plan	**Jamaica:** •Invasive predators threaten native iguana populations on Goat Islands •Post-eradication, Goat Islands will provide suitable nesting sites for native iguana •Head-started iguanas will be available for release on Goat Islands
	Saint Lucia pilot: •Surveys of native and exotic iguana population in Soufriere at beginning (baseline) & end of project (impact). •Live trapping grid established & implemented •Exotic iguana population removed	**Saint Lucia:** •No data on abundance & distribution of exotic iguanas, or impact on native iguana populations	**Saint Lucia:** •Baseline data available by end year 1 •Live trapping grid established •Field staff, dogs & dog-handlers trained	**Saint Lucia:** •Exotic iguana population absent from pilot site	**Saint Lucia:** •Survey data from live trapping grids •Project reports	**Saint Lucia:** •Exotic iguanas pose threat to rare native species, including potential for interbreeding •Dogs can be trained to find nests of exotic iguanas •Exotic species will not be re-introduced
Output 5.3 Marine IAS controlled and managed (Bahamas, Jamaica, Trinidad & Tobago)	**Bahamas & Jamaica pilots:** •Baseline data on lionfish incidence available (year 1) •Lionfish collection & handling protocol in place (year 1) •Effective control method for lionfish identified (year 2) •Policies & regulations in place to facilitate lionfish management (year 4) •Adaptive management plan for lionfish in place in both countries (year 4) •Regional lionfish control strategy developed and disseminated: see Output 3.2	**Bahamas & Jamaica:** •Accurate baseline data on lionfish incidence not available •Control methods poorly understood No coordinated response mechanism	**Bahamas & Jamaica:** •Baseline data collected and analyzed by end year 1 •Collection & handling protocol developed •Most effective control method identified from population control experiment (Bahamas)	**Bahamas & Jamaica:** •Policies & regulations on lionfish control & management in place •Adaptive management plan in place	**Bahamas & Jamaica:** •Survey data •Results from population control experiment (Bahamas) •Pamphlet on collection & handling •Project reports •Government policies and regulations •Management plan document	**Bahamas & Jamaica:** •Lionfish invasion continues to spread southwards in WCR •Countries willing to share knowledge & expertise

	Trinidad & Tobago pilot: •Baseline data on green mussel distribution available (year 1) •Environmental impact of green mussel determined in coastal areas of T&T with emphasis on west coast (year 1) •Economic impact of green mussel determined (year 2) •Effective method for control & management identified & tested (year 4)	**Trinidad & Tobago:** •No data available on environmental & economic impacts of green mussel •No coordinated management strategy in place	**Trinidad & Tobago:** •Baseline data available (year 1) •Data on environmental (by end year 1) & economic impacts of green mussel available •Field staff trained	**Trinidad & Tobago:** •Effective control & management methods identified •Improvement in community structure associated with green mussel at pilot sites	**Trinidad & Tobago:** •Reports of environmental & economic impact assessments •Project reports •Training course reports	**Trinidad & Tobago:** •Environmental & economic impact of green mussel justifies investment in control methods •Conflicts of interest can be kept minimal
Output 5.4 Protection measures for sites of high conservation value (Jamaica, Trinidad & Tobago)	**Jamaica pilot (Black River Morass RAMSAR site, 5,700 ha):** • Ecosystem evaluation completed (year 1) • Baseline map of pilot area (year 1) • Target species removed (year4) • Native species re-established by replanting (year4) • Mapping after project interventions	**Jamaica (Black River Morass):** • No baseline data available for pilot site	**Jamaica (Black River Morass):** • Ecosystem evaluation completed (by year 1) • Baseline map available (by end year 1) • Native species nursery established	**Jamaica (Black River Morass):** • Target species removed from pilot area • Area replanted with native species • Adaptive Management Plan in place	**Jamaica (Black River Morass):** • Ecological report • Maps showing habitat status before and after interventions • Adaptive Management Plan document	**Jamaica (Black River Morass):** • IAS have an adverse ecological impact in pilot site • Native plants re-establish successfully from seedlings
	Trinidad & Tobago pilot **(Nariva Swamp, 3,600ha):** • Plant IAS removed from pilot area (year 3) • Native palm seedlings reestablished (year 4) • Incidence of invasive palm pests (red palm mite & coconut moth) determined (every 2 months) • Pest control	**Trinidad & Tobago pilot (Nariva Swamp:** • No baseline data on impacts of plant and pest IAS in pilot area	**Trinidad & Tobago pilot (Nariva Swamp:** • Baseline survey of invasive palm pests (red palm mite & coconut moth) by scoring leaf infestation levels (by end year 1) • Palm seedlings collected and nursery established • Baseline survey of indicator native	**Trinidad & Tobago pilot (Nariva Swamp:** • Plant IAS eradicated in pilot area • Population of indicator palm species increased by 15% over baseline in project area (estimated by transect sampling) • Risk posed by invasive palm pests (red palm mite & coconut	**Trinidad & Tobago pilot (Nariva Swamp:** • Survey data (density of indicator palm species, incidence of invasive palm pests) • Project reports • Nursery records	**Trinidad & Tobago pilot (Nariva Swamp:** • IAS pose significant threat to native palm biodiversity in pilot area • Effective control methods for palm pests exist

	methods developed & implemented (year 4)		palm species Moriche Palm (Mauritia flexuosa) and Trinidad Royal Palm (Roystonea oleracea) by end year 1.	moth) determined (by scoring leaf infestation levels) • Pest control methods developed & implemented		

ANNEX F – EVALUATION FRAMEWORK

EVALUATION CRITERIA A: Strategic Relevance

		GUIDING QUESTIONS	DATA SOURCES / METHODS
Project Objective: mitigate the threat to local biodiversity and economy from IAS in the insular Caribbean, including terrestrial, freshwater, and marine ecosystem		whether the project's objectives and implementation strategies were consistent with: i) Sub-regional environmental issues and needs; ii) the UNEP mandate and policies at the time of design and implementation; and iii) the GEF Ecosystem Management focal area, strategic priorities and operational programme(s)	Desk review: review of the main regional agreements and MEAs on which the countries participate including but limited to: Cartagena Convention, SPAW Protocol, CBD, GEF-4 Biodiversity Focal Area Strategic Programs; UNEP's policies for the time of project preparation and approval, among other documents.
Overall Purpose: to provide the participating countries and others in the Caribbean region with the necessary tools and capacity to address existing and future biological invasions.		i) are there new planning and methodological tools that countries have been able to acquired thanks to the MTIASIC Project? ii) Beyond the five participating countries, are strategies and tools promoted by MTIASIC being also used by other countries in the WCR? iii) Of the IAS management projects that are starting in the WCR, are there any that were fertilized by MTIASIC?	Desk review: MTIASIC's PIRs, MtE, CIASNET and other regional and global island portal such as GLISPA, SIDSNET, etc.; Interviews: with NCs and Project Directors; interviews and/or questionnaires with NGOs and specialists working in the Eastern Caribbean including but not limited to Flora and Fauna International (FFI), Durrell Conservation Trust, Royal Society for the Preservation of Birds (RSPB)
Component 1: Development of National IAS Strategies (Analysis will be presented by country)		Detailed review to determine if NISS takes into consideration all country needs as in internal policies, and regional and global agreements. In-depth review of NISS vis-a-vis publicly available scientific data/info to check if it is using up to date scientific information and proven methodologies.	Desk review: Agreements and documents as used in assessing relevance of the Project Objective. Also, NBSAP and reports to the SCBD. Additionally, open access scientific literature produced during the past 10 years as well as public databases on island and biodiversity issues. Interviews and/or questionnaires with NISS authors and NC.
Component 2: Establishment of Caribbean Wide Cooperation and Strategy		Was the 'International Project Steering Committee (IPSC)' Functional? Will any type of Caribbean-wide committee emerge out of the IPSC after the project?	Desk review: minutes of the IPSC Interviews and/or Questionnaires: with NCs and Project Directors
Component 3: Knowledge generation, management and dissemination		Are 'Critical Situational Analysis (CSA)' in each country disseminated? Is information/lessons learned from pilot projects reaching senior Gov officers and decision-making authorities?	Desk review: In-depth review of all five CSA. Interviews and/or Questionnaires: with NCs and Project Directors.
Component 4: Prevention of new IAS introductions in terrestrial, freshwater and marine systems	Saint Lucia	Was the pilot projects for SLU relevant to the countries need? Why there was no attempt to work on other seemingly important incipient invasions, like monkeys and alien parrots?	Interviews and/or Questionnaires: NC, Project Director, local and international NGO working on biodiversity in SLU.

	Trinidad and Tobago	How important for biodiversity conservation in T&T is the work on alien agricultural pests being done through MTIASIC? Has the country specialists and Gov officers been able to establish connections between the pilot projects results and biodiversity conservation needs in the country?	Desk review: literature on Frosty Rot Pod, cocoa plantations and biodiversity in agrosystems in the Caribbean (particularly birds). Interviews and/or Questionnaires: Specialists from the Ministry of Food Production and UWI.
Component 5: Early detection, rapid response and control of IAS impacts	Bahamas	How relevant and/or productive has been for the country to focus efforts on Lionfish Pilot Project in order to increase national capacity for detection, rapid response and control of IAS? With the success level that may have been achieved so far, what would be the strategy for initiating work with other high impact IAS already present in the country? Are the Executive and Legislative branches truly aware of the potential negative impacts of IAS? Are they considering new regulations to help control IAS?	Desk review: cross check country priorities in NBSAP and other national policy documents with pilot project's expected outputs and outcomes. Interviews and/or Questionnaires: CBD Focal Point, Project Director and select partners.
	Dominican Republic	How relevant and/or productive has been for the country to focus efforts on the Cabritos Pilot Project in order to increase national capacity for detection, rapid response and control of IAS? With the success level that may have been achieved so far, what would be the strategy for initiating work with other high impact IAS already present in the country? Will the Government support eradication of IAS in Alto Velo and other off shore islands with Threatened native biodiversity? Are the Executive and Legislative branches truly aware of the potential negative impacts of IAS? Are they considering new regulations to help control IAS?	Desk review: cross check country priorities in NBSAP and other national policy documents with pilot project's expected outputs and outcomes. Interviews and/or Questionnaires: CBD Focal Point, Project Director and select partners.
	Jamaica	How relevant and/or productive has been for the country to focus efforts on the Lionfish and Jamaica Iguana Pilot Project in order to increase national capacity for detection, rapid response and control of IAS? With the success level that may have been achieved so far, what would be the strategy for initiating work with other high impact IAS already present in the country? Are the Executive and Legislative branches truly aware of the potential negative impacts of IAS? Are they considering new regulations to help control IAS?	Desk review: cross check country priorities in NBSAP and other national policy documents with pilot project's expected outputs and outcomes. Interviews and/or Questionnaires: CBD Focal Point, Project Director and select partners.

Saint Lucia	How relevant and/or productive has been for the country to focus efforts on Green Iguana Pilot Project in order to increase national capacity for detection, rapid response and control of IAS? Would Saint Lucia conduct an assessment of the potential damages/impact if alien monkeys and Orange-winged Parrots start spreading across the island? With the success level that may have been achieved so far, what would be the strategy for initiating work with other high impact IAS already present in the country? Are the Executive and Legislative branches truly aware of the potential negative impacts of IAS? Are they considering new regulations to help control IAS?	Desk review: cross check country priorities in NBSAP and other national policy documents with pilot project's expected outputs and outcomes. Interviews and/or Questionnaires: CBD Focal Point, Project Director and select partners.
Trinidad and Tobago	How relevant and/or productive has been for the country to focus efforts on Frosty Rot Pod (FRP) and Red Palm Mite (RPM) in order to increase national capacity for detection, rapid response and control of IAS? With the success level reached with the FRP Pilot project but also the limited results with the RPM in Nariva, what would be the strategy for initiating work with other high impact IAS already present in the country? Are the Executive and Legislative branches truly aware of the potential negative impacts of IAS? Are they considering new regulations to help control IAS?	Desk review: cross check country priorities in NBSAP and other national policy documents with pilot project's expected outputs and outcomes. Interviews and/or Questionnaires: CBD Focal Point, Project Director and select partners.

EVALUATION CRITERIA B: Achievement of Outputs

COMPONENT / Outcome	OUTPUTS	GUIDING QUESTIONS / INDICATOR AND/OR VERIFICATION ACTIONS	DATA SOURCES / METHODS
1. Development of National IAS Strategies Outcome 1: Increased national capacity to address potential risks posed to biodiversity of global significance from invasive alien species	Output 1.1 National IAS working group established in each country	Is the working group functioning and having regular meetings? Is there any supporting legislation for the group? Any supporting Government budget allocation?	Desk Review: of any regulation concerning the NIASWG Interviews and/or Questionnaires: with NCs and/or Project Directors
	Output 1.2 National IAS Strategy (NISS) produced for each country.	For each of the five countries: Is it produced? Was it officially adopted by the Government? Was it disseminated? Was it sent to the CBD CHM? Is it publicly available in Governmental web sites and CIASNET?	Desk review: Visit to CBD, CIASNET and NEAs web pages Interviews and/or questionnaires: with NISS authors and NC.
2. Establishment of Caribbean Wide Cooperation and Strategy Outcome 2: Increased regional cooperation to reduce risk posed to biodiversity of global significance from invasive alien species	Output 2.1 National and regional coordination mechanisms for a regional cooperation framework	Was the IPSC a functional group having meetings regularly? Are there opportunities that it will continue after MTIASIC ceases providing funds?	Interviews and/or Questionnaires: with NCs and/or Project Directors
	Output 2.2 Draft region- wide invasive species strategies	Verification of the document existence. Is the strategy pertinent to the Caribbean needs? Is it seen as a truly Caribbean instrument? Is it uploaded to the CIASNET page?	Interviews and/or Questionnaires: with NCs and/or Project Directors
3. Knowledge generation, management and dissemination Outcome 3: Access to data and best practice established, and public awareness of IAS	Output 3.1 Data, information and best practice on IAS management collated.	Verification of existence for the 'CSA' and the booklets on best practices. Are the CSA influencing Government decisions? Are they made public through NEAs web pages or CIASNET?	Desk review: Visit to CIASNET and NEAs web pages Interviews and/or questionnaires: with CSA authors, NC and select partners/local NGOs/Stakeholders.

strengthened			
	Output 3.2 Pilot findings, existing and externally funded IAS- related research at national and regional levels documented.	Verification of existence of the Regional Lionfish Strategy. Verification that it is uploaded to CIASNET and is being use by stakeholders.	Desk review: Visit to CIASNET and NEAs web pages Interviews and/or questionnaires: with NC and select partners/local NGOs/Stakeholders.
	Output 3.3 Electronic networking systems, including linkages to GISP, GISIN and IABIN established.	Is CIASNET fully functional? Is it connected to key web sites on islands and invasive species such as : IABIN, Threatened Island Biodiversity Database(TIB), Eradication Database, GLISPA, GISP and CABI's Invasive Species Compendium?	Desk review: Visit to CIASNET and NEAs web pages Interviews and/or questionnaires: with NC and select partners/local NGOs/Stakeholders.
	Output 3.4 Public communication media & measures developed.	Verification and review of all outreach materials produced by the project.	Interviews and/or questionnaires: with NC, Project Directors and select partners/local NGOs/Stakeholders.
4. Prevention of new IAS introductions in terrestrial, freshwater and marine systems Outcome 4: Increased capacity to strengthen prevention of new IAS introductions	Output 4.1 National capacity to prevent biological invasions strengthened (Trinidad & Tobago, Saint Lucia).	Saint Lucia: Has increased the capacity of field staff and specialist to monitor arrival of IAS to off-shore islands? Can the local specialists design and produce the necessary tools locally?	Interviews and/or questionnaires: with NC, Project Directors and select partners/local NGOs/Stakeholders.
		Trinidad and Tobago: verification of National Emergency Plan document. Verification of functionality of measures proposed under that plan. Verification of level of engagement of stakeholders on FRP prevention. Are there new regulations in place to control movement between South America and T&T? Are there new biosecurity procedures?	Desk review: verification of documents and their content. Interviews and/or questionnaires: with NC, Project Directors and select partners/local NGOs/Stakeholders.
5. Early detection, rapid response and control of IAS impacts Outcome 5: Increased capacity to detect,	Output 5.1 Incipient invasion of marine IAS detected and prevented (Trinidad & Tobago)	Review of Pilot project history. Understanding why/how it was selected and the planning team did not realize it was a native species. Discussing with Pilot Project lead and NC mechanism to prevent similar situations in other projects.	Interviews and/or questionnaires: with NC, Project Director and select partners/local NGOs/Stakeholders.

respond, control and manage IAS impacting globally significant biodiversity			
	Output 5.2 Populations of invasive animals and plants (Dominican Republic, Jamaica, Saint Lucia) eradicated	Verify the existence of IAS management docs for the three pilot projects. Review of IAS management plans to verify pertinence and technical strength.	Interviews and/or questionnaires: with NC, Project Director and select partners/local NGOs/Stakeholders, including Island Conservation, Durrell, UWI, RSPB, Grupo Jaragua, Hispaniola Ornithological Society (HOS).
	Output 5.3 Marine IAS controlled and managed (Bahamas, Jamaica, Trinidad & Tobago)	Bahamas & Jamaica: verification that baseline data is being collected and used; protocols for safety handling of Lionfish produced and disseminated; verification that management plans in both countries exist and are used.	Interviews and/or questionnaires: with NC, Project Director and select partners/local NGOs/Stakeholders including the Bahamas National Trust (BNT) and UWI
		Trinidad and Tobago: Verification that assessment of Green Mussel (Perna viridis) ecological and economic impacts exist. Explore whether IMA and the oil industry have moved forward with any mitigation plan to manage Perna viridis.	Interviews and/or questionnaires: with NC, IMA and UWI.
	Output 5.4 Protection measures for sites of high conservation value (Jamaica, Trinidad & Tobago)	Jamaica: Verification on status of baseline mapping and eradication of IA plants. Verification on the status of repopulation with native plants. Was this project impacted by late flow of financial resources? Was there any oversight on the part of the Regional Executing agency or the Implementing Agency?	Desk review: scientific literature and best practices will be reviewed for the case of invasive ginger species. Interviews and/or questionnaires: with NC and UWI.

EVALUATION CRITERIA D: Sustainability and Replication

	GUIDING QUESTIONS / INDICATOR AND/OR VERIFICATION ACTIONS	DATA SOURCES / METHODS
Socio-political sustainability	Will the participating countries enact legislation to support the institutionalization of the NIASWG? Are there any social or political factors that may influence positively or negatively the sustenance of project results and progress towards impacts? Is the level of ownership by the main national and regional stakeholders sufficient to allow for the project results to be sustained? Are there sufficient government and stakeholder awareness, interests, commitment and incentives to execute, enforce and pursue the programmes, plans, agreements, monitoring systems etc. prepared and agreed upon under the project?	Desk review: rapid examination of Government sponsored policy proposals (if they exist). Interviews and/or Questionnaires: With Project Directors and senior officers within the governments. Also, interviews with Executive Directors of NGOs. **Comment:** Proactive efforts had yet to be made to incorporate IAS into existing legal/policy frameworks or draft new legislation and soft law tools (e.g., codes of conduct. There seemed to be a need to for the project to strengthen relationships with stakeholder groups that have the capacity and inspiration to assume long-term ownership. A specific question would therefore address the extent to which the project was successful in ensuring long-term ownership.
Financial resources	Are participating countries considering the creation of 'Long-Term Financial Mechanisms' to support IAS management, especially in protected areas? To what extent are the continuation of project results and the eventual impact of the project dependent on continued financial support? What is the likelihood that adequate financial resources will be or will become available to implement the programmes, plans, agreements, monitoring systems etc. prepared and agreed upon under the project? Are there any financial risks that may jeopardize sustenance of project results and onward progress towards impact?	Desk review: rapid examination of income generation opportunities through biodiversity services and tourism, willingness to pay studies, and Government sponsored financial assessment and policy proposals (if they exist). Interviews and/or Questionnaires: With Project Directors and senior officers within the governments. Also, interviews with Executive Directors of NGOs.
Institutional framework	To what extent is the sustenance of the results and onward progress towards impact dependent on issues relating to institutional frameworks and governance? How robust are the institutional achievements such as governance structures and processes, policies, sub-regional agreements, legal and accountability frameworks etc. required to sustaining project results and to lead those to impact on human behavior and environmental resources?	Interviews and/or Questionnaires: With Project Directors and senior officers within the governments. Also, interviews with Executive Directors of NGOs. **Comment:** The project design did not explicitly include actions to secure institutionalization of staffing positions, programmes, or activities initiated or expanded through the GEF project. According to the MTE, this needed to be achieved through development and implementation of a strategic sustainability plan in the near term. A specific question of interest is therefore the extent to which this foundation can be used to build a long-term capacity for changing human behavior in such a manner that it substantially reduces the risk of IAS introduction, spread, and impact.

Environ. sustainability.	Are there any environmental factors, positive or negative, that can influence the future flow of project benefits? Are there any project outputs or higher level results that are likely to affect the environment, which, in turn, might affect sustainability of project benefits? Are there any foreseeable negative environmental impacts that may occur as the project results are being up-scaled? To what extent did the project contribute to address the three pathways of intentional and unintentional introduction of IAS at national and regional scale (horticulture, tourism, and the pet/animal trade) in order to substantially reduce this risk in the medium and long term? To what extent is the low priority assigned to IAS at institutional level impacting the environmental sustainability of the project in the medium and long term?	Interviews and/or Questionnaires: With Project Directors and senior officers within the governments. Also, interviews with Executive Directors of NGOs.
Catalyzing behavioral changes	To what extent has the Project catalyzed behavioral changes related to IAS and their impact on native biodiversity? To what extent in terms of use and application by the relevant stakeholders of: i) technologies and approaches show-cased by the demonstration projects; ii) strategic programmes and plans developed; and iii) assessment, monitoring and management systems established at national and regional level.	Desk review: report of outreach activities and perception studies related to pilot projects. Interviews and/or Questionnaires: With NC, Pilot project leads and NGOs.
Incentive provision	To what extent economic and market based mechanisms were used during the project and what were the results? What are the consequences of commercialization of Lionfish? Is it a profitable activity?	Desk review: report of outreach activities and perception studies related to pilot projects. Interviews and/or Questionnaires: With NC, Pilot project leads and NGOs.
Institutional Changes	To what extent the MTIASIC project has catalyzed any changes in Governmental agencies, stakeholder organizations and NGOs?	Desk review: report of outreach activities and perception studies related to pilot projects. Interviews and/or Questionnaires: With NC and Project Directors, and Senior Govt. officers.
Policy changes	To what extent the MTIASIC project has catalyzed policy changes?	Desk review: report of outreach activities and perception studies related to pilot projects. Interviews and/or Questionnaires: With NC and Project Directors, and Senior Gov officers.
Catalytic Financing	As a consequence of the project, are there plans by governments or other financial agencies to contribute additional funding for IAS management?	Interviews and/or Questionnaires: With NCs, Project Directors and senior officers within the governments. Also, interviews with Executive Directors of NGOs.
Leadership opportunities	Has the project created opportunities for particular individuals or institutions (“champions”) to catalyze change?	Interviews and/or Questionnaires: With NCs, Project Directors and senior officers within the governments. Also, interviews with Executive Directors of NGOs.

EVALUATION CRITERIA F: Factors and Processes Affecting project Performance

	GUIDING QUESTIONS / INDICATOR AND/OR VERIFICATION ACTIONS	DATA SOURCES / METHODS
Preparation and Readiness	Did the pre-existing level of knowledge and experience affect the project design and its implementation? Did pre-existing levels of knowledge and experience led to or allow the selection to pilot projects that would not be completed? Is it possible that lack of capacity led to too ambitious expectations? Were project stakeholders adequately identified? Were the project's objectives and components clear, practicable and feasible within its timeframe? Were the capacities of executing agencies properly considered when the project was designed? Was the project document clear and realistic to enable effective and efficient implementation? Were the partnership arrangements properly identified and the roles and responsibilities negotiated prior to project implementation? Were counterpart resources (funding, staff, and facilities) and enabling legislation assured? Were adequate project management arrangements in place? Were lessons from other relevant projects properly incorporated in the project design? What factors influenced the quality-at-entry of the project design, choice of partners, allocation of financial resources etc.? Were GEF environmental and social safeguards considered when the project was designed? Was the available technical knowledge sufficiently utilized during the project design phase?	Interviews and/or Questionnaires: NC, Project Director, partners and stakeholders including NGOs and academia.
Project implementation and management	Analysis of implementation approaches used, project's adaptiveness to changing conditions and findings of the MtE. The TE will consider: 1) Ascertain to what extent the project implementation mechanisms outlined in the project document have been followed and were effective in delivering project outputs and outcomes. Were pertinent adaptations made to the approaches originally proposed? 2) Evaluate the effectiveness and efficiency of project management by CABI and how well the management was able to adapt to changes during the life of the project; 3) Assess the role and performance of the units and committees established and the project execution arrangements at all levels; 4) Assess the extent to which project management as well as national partners responded to direction and guidance provided by the Steering Committees and UNEP supervision recommendations; 5) Identify operational and political / institutional problems and constraints that influenced the effective implementation of the project, and how the project partners tried to overcome these problems. How did the relationship between the project management team (CABI) and the national coordinators develop? 6) Assess the extent to which MTE recommendations were followed in a timely manner; 7) Assess the extent to which the project implementation met GEF environmental and social safeguards requirements.	Desk review: Detail review of the IPSC meeting minutes, the Task Manager Mission Reports and the PIRs. Interviews and/or Questionnaires: NC, Project Director, partners and stakeholders including NGOs and academia.
Stakeholder participation and public awareness	The assessment will look at i) information dissemination between stakeholders, ii) consultation between stakeholders, and iii) active engagement of stakeholders in project decision making and activities. The evaluation will specifically assess: (a) the approach(es) used to identify and engage stakeholders in project design and implementation. What were the strengths and weaknesses of these approaches with respect to the project's objectives and the stakeholders'	Desk review: Detail review of the PDF-A, PPG and minutes during the project preparation phase. As for participation during the project implementation, the review will focus on minutes of the IPSC

	motivations and capacities? What was the achieved degree and effectiveness of collaboration and interactions between the various project partners and stakeholders during design and implementation of the project? (b) the degree and effectiveness of any public awareness activities that were undertaken during the course of implementation of the project; or that are built into the assessment methods so that public awareness can be raised at the time the assessments will be conducted; and (c) how the results of the project (strategic programmes and plans, monitoring and management systems, sub-regional agreements etc.) promote participation of stakeholders in decision making	meetings, the PIR reports and Task Manager Mission reports. Interviews and/or Questionnaires: Project Regional Director, UNEP Task Manager, NC, Project Director, partners and stakeholders including NGOs and academia.
Country ownership and drivenness	1) In how far has the national partners assumed responsibility for the project and provided adequate support to project execution, including the degree of cooperation received from the various public institutions involved in the project and the timeliness of provision of counter-part funding to project activities? 2) To what extent has the national and regional political and institutional framework been conducive to project performance? 3) How responsive were the national partners to CABI coordination and guidance, and to UNEP supervision?	Desk review: Detail review of minutes of the IPSC meetings, the PIR reports and Task Manager Mission reports. Interviews and/or Questionnaires: Project Regional Director, UNEP Task Manager, NC, Project Director, partners and stakeholders including NGOs and academia.
Financial planning and management	In addition to standard reviews of the financial aspect of the project, as normally required by a terminal evaluation, a series of key questions will be answer in the TE: Were financial resources adequate to achieve the objectives of the project? Did the financial management arrangements facilitate or hinder effective activity management? Financial resource levels and cash flow management were adequate to supporting effective overall management? Importantly, what is the perception of NC and Project Directors about the administrative agility of the project? In a similar way, what is the perception of partners and stakeholders participating? Are those just perceptions just that?	Desk review: Detail review of minutes of the country and project financial reports, project audits, IPSC meeting minutes, PIR reports. Interviews and/or Questionnaires: Project Regional Director, UNEP Task Manager, NC, Project Director, and project administrator.
UNEP supervision and backstopping	The five key aspect to assess during the TE, as indicated in the TOR, will be: 1) The adequacy of project supervision plans, inputs and processes; 2) The emphasis given to outcome monitoring (results-based project management); 3) The realism and candor of project reporting and ratings; 4) The quality of documentation of project supervision activities; and 5) Financial, administrative and other fiduciary aspects of project implementation supervision.	Desk review: Detail review of IPSC meeting minutes, PIR reports. Interviews and/or Questionnaires: Project Regional Director, UNEP Task Manager, NC, Project Directors, and project administrator.
Monitoring and evaluation	The TOR reference have an extensive section of E&M and consideration for the TE. In addition to all those, some key questions will be used to evaluate the M&E aspects of the project: 1) was M&E an integral part of the project, having good planning, time table and financial resources? 2) Did the design of the project consider the use of SMART indicator as to be able to conduct adequate project monitoring during the implementation?	Desk review: Detail review of MtE, IPSC meeting minutes, PIR reports, and country reports. Interviews and/or Questionnaires: Project Regional Director, UNEP Task Manager, NC, Project Directors, and project administrator.

	3) Were results and data of the M&E process shared with partners and NEAs, and use adaptively to improve performance? 4) Did the project engage in adaptive management to take into consideration results of the MtE?	

EVALUATION CRITERIA G: Complementarities with UNEP strategies and programmes

	GUIDING QUESTIONS / INDICATOR AND/OR VERIFICATION ACTIONS	DATA SOURCES / METHODS
Linkage to UNEP's Expected Accomplishments and POW 2010-2011 and 2012-2013	The evaluation should comment on whether the project makes a tangible contribution to any of the Expected Accomplishments specified in the UNEP MTS. The magnitude and extent of any contributions and the causal linkages should be fully described. Whilst it is recognized that UNEP GEF projects designed prior to the production of the UNEP Medium Term Strategy 2010-2013 (MTS) would not necessarily be aligned with the Expected Accomplishments articulated in those documents, complementarities may still exist and it is still useful to know whether these projects remain aligned to the current MTS	Desk review: UNEP MTS 2010-2013 Interviews and/or Questionnaires: UNEP Task Manager, UNEP EO, GEF officers.
Alignment with the Bali Strategic Plan (BSP)	Are the Project's outcomes and achievements aligned with the Bali Strategic Plan?	Desk review: UNEP MTS 2010-2013 Interviews and/or Questionnaires: UNEP Task Manager, UNEP EO; GEF officers
Gender	The TE should assess to what extent project design, implementation and monitoring have taken into consideration: (i) possible gender inequalities in access to and the control over natural resources; (ii) specific vulnerabilities of women and children to environmental degradation or disasters; and (iii) the role of women in mitigating or adapting to environmental changes and engaging in environmental protection and rehabilitation. Appreciate whether the intervention is likely to have any lasting differential impacts on gender equality and the relationship between women and the environment. To what extent do unresolved gender inequalities affect sustainability of project benefits?	Desk review: Detail review of minutes of the IPSC meetings, the PIR reports, Task Manager Mission reports. Interviews and/or Questionnaires: Project Regional Director, UNEP Task Manager, NC, Project Director, partners and stakeholders including NGOs and academia, especially women.
South-South Cooperation & Triangular Cooperation	The TE will determine to what is the extent of exchanged resources, technology, and knowledge between developing countries. It will briefly describe any aspects of the project that could be considered as examples of South-South Cooperation.	Desk review: Detail review of MtE, minutes of the IPSC meetings, the PIR reports and Task Manager Mission reports. Interviews and/or Questionnaires: Project Regional Director, UNEP Task Manager, NC, Project Director, partners and stakeholders including NGOs and academia.

ANNEX G – REVIEW OF OUTCOMES TOWARD IMPACTS METHODOLOGY

The Review of Outcomes towards Impact (ROtI) method requires ratings for outcomes achieved by the project and progress made towards the 'intermediate states' at the time of the evaluation. According to the GEF guidance on t method; "*The rating system is intended to recognize project preparation and conceptualization that considers its ou assumptions, and that seeks to remove barriers to future scaling up and out. Projects that are a part of a long-term process need not at all be "penalized" for not achieving impacts in the lifetime of the project: the system recognizes projects' forward thinking to eventual impacts, even if those impacts are eventually achieved by other partners and stakeholders, albeit with achievements based on present day, present project building blocks."* For example, a proje receiving an "AA" rating appears likely to deliver impacts, while for a project receiving a "DD" this would be very un due to low achievement in outcomes and the limited likelihood of achieving the intermediate states needed for ev impact (see Table 1).

Table 1. Rating scale for outcomes and progress towards 'intermediate states'

Outcome Rating	Rating on progress toward Intermediate States
D: The project's intended outcomes were not delivered	D: No measures taken to move towards intermediate states
C: The project's intended outcomes were delivered, but were not designed to feed into a continuing process after project funding	C: The measures designed to move towards intermediate states have started, but have not produced results.
B: The project's intended outcomes were delivered, and were designed to feed into a continuing process, but with no prior allocation of responsibilities after project funding	B: The measures designed to move towards intermediate states have started and have produced results, which give n indication that they can progress towards the intended long term impact.
A: The project's intended outcomes were delivered, and were designed to feed into a continuing process, with specific allocation of responsibilities after project funding.	A: The measures designed to move towards intermediate states have started and have produced results, which clearly indicate that they can progress towards the intended long term impact.

Thus a project will end up with a two letter rating e.g. AB, CD, BB etc. In addition the rating is given a '+' notation if is evidence of impacts accruing within the life of the project. The possible rating permutations are then translated the usual six point rating scale used in all UNEP project evaluations in the following way.

Table 2. Shows how the ratings for 'achievement of outcomes' and 'progress towards intermediate states translate ratings for the 'Overall likelihood of impact achievement' on a six point scale.

Highly Likely	Likely	Moderately Likely	Moderately Unlikely	Unlikely	Highly Unlikely
AA AB BA CA BB+ CB+ DA+ DB+	BB CB DA DB AC+ BC+	AC BC CC+ DC+	CC DC AD+ BD+	AD BD CD+ DD+	CD DD

In addition, projects that achieve documented changes in environmental status during the project's lifetime receiv positive impact rating, indicated by a "+". The overall likelihood of achieving impacts is shown in Table 11 below (a score above moves the double letter rating up one space in the 6-point scale).
The ROtI method provides a basis for comparisons across projects through application of a rating system that can i the expected impact. However it should be noted that whilst this will provide a relative scoring for all projects asse does not imply that the results from projects can necessarily be aggregated. Nevertheless, since the approach yiel greater clarity in the 'results metrics' for a project, opportunities where aggregation of project results might be pos can more readily be identified.

Results rating of project entitled:							
Outputs	Outcomes	Rating (D – A)	Intermediate states	Rating (D – A)	Impact (GEBs)	Rating (+)	Overall
1.	1.		1.		1.		
2.	2.		2.		2.		
3.	3.		3.		3.		
	Rating justification:		Rating justification:		Rating justification:		

Scoring Guidelines

The achievement of **Outputs** is largely assumed. Outputs are such concrete things as training courses held, numbers of persons trained, studies conducted, networks established, websites developed, and many others. Outputs reflect where and for what project funds were used. These were not rated: projects generally succeed in spending their funding.

Outcomes, on the other hand, are the first level of intended results stemming from the outputs. Not so much the number of persons trained; but how many persons who then demonstrated that they have gained the intended knowledge or skills. Not a study conducted; but one that could change the evolution or development of the project. Not so much a network of NGOs established; but that the network showed potential for functioning as intended. A sound outcome might be genuinely improved strategic planning in SLM stemming from workshops, training courses, and networking.

Examples
Funds were spent, outputs were produced, but nothing in terms of outcomes was achieved. People attended training courses but there is no evidence of increased capacity. A website was developed, but no one used it. (Score – D)

Outcomes achieved but are dead ends; no forward linkages to intermediate states in the future. People attended training courses, increased their capacities, but all left for other jobs shortly after; or were not given opportunities to apply their new skills. A website was developed and was used, but achieved little or nothing of what was intended because users had no resources or incentives to apply the tools and methods proposed on the website in their job. (Score – C)

Outcomes plus implicit linkages forward. Outcomes achieved and have *implicit forward linkages* to intermediate states and impacts. Collaboration as evidenced by meetings and decisions made among a loose network is documented that should lead to better planning. Improved capacity is in place and should lead to desired intermediate outcomes. Providing implicit linkages to intermediate states is probably the most common case when outcomes have been achieved. (Score - B)

Outcomes plus explicit linkages forward. Outcomes have *definite and explicit forward linkages* to intermediate states and impacts. An alternative energy project may result in solar panels installed that reduced reliance on local wood fuels, with the outcome quantified in terms of reduced C emissions. Explicit forward linkages are easy to recognize in being concrete, but are relatively uncommon. (Score A)

Intermediate states:

The **intermediate states** indicate achievements that lead to Global Environmental Benefits, especially if the potential for scaling up is established.

"Outcomes" scored C or D. If the outcomes above scored C or D, there is no need to continue forward to score intermediate states given that achievement of such is then not possible.

In spite of outcomes and implicit linkages, and follow-up actions, the project dead-ends. Although outcomes achieved have *implicit forward linkages* to intermediate states and impacts, the project dead-ends. Outcomes turn out to be insufficient to move the project towards intermediate states and to the eventual achievement of GEBs. Collaboration as evidenced by meetings and among participants in a network never progresses further. The implicit linkage based on follow-up never materializes. Although outcomes involve, for example, further participation and discussion, such actions do not take the project forward towards intended intermediate impacts. People have fun getting together and talking more, but nothing, based on the implicit forwards linkages, actually eventuates. **(Score = D)**

The measures designed to move towards intermediate states have started, but have not produced result, barriers and/or unmet assumptions may still exist. In spite of sound outputs and in spite of explicit forward linkages, there is limited possibility of intermediate state achievement due to barriers not removed or unmet assumptions. This may be the fate of several policy related, capacity building, and networking projects: people work together, but fail to develop a way forward towards concrete results, or fail to successfully address inherent barriers. The project may increase ground cover and or carbon stocks, may reduce grazing or GHG emissions; and may have project level recommendations regarding scaling up; but barrier removal or the addressing of fatal assumptions means that scaling up remains limited and unlikely to be achieved at larger scales. Barriers can be policy and institutional limitations; (mis-) assumptions may have to do with markets or public – private sector relationships. (Score = C)

Barriers and assumptions are successfully addressed. Intermediate state(s) planned or conceived have feasible direct and explicit forward linkages to impact achievement; barriers and assumptions are successfully addressed. The project achieves measurable intermediate impacts, and works to scale up and out, but falls well short of scaling up to global levels such that achievement of GEBs still lies in doubt. **(Score = B)**

Scaling up and out over time is possible. Measurable intermediate state impacts achieved, scaling up to global levels and the achievement of GEBs appears to be well in reach over time. **(Score = A)**

Impact: Actual changes in environmental status

"Intermediate states" scored B to A.
Measurable impacts achieved at a globally significant level within the project life-span. . (Score = '+')

PDATED PROJECT LOGFRAME

ional IAS					
ity to address potential risks posed to biodiversity of n species					
licator	**Baseline**	**Mid-term target**	**End of Project target**	**Sources of verification**	**Risks and assumptions**
S strategy and up in place and	•No current national IAS strategies in existence (except Bahamas)	•n/a	•IAS working groups facilitating implementation of national strategies	•NISS and project reports produced and disseminated	
eering NSC) and operational S group rom NSC) and operational	•None of the project countries has operational multi-agency coordination mechanism for IAS (except Jamaica)	•NSC operational and meeting regularly	•IAS working group meets regularly and facilitates inter- agency cooperation including private – public partnerships	•Project reports and NSC minutes	•Agencies concerned with IAS welcome collaboration and participate in NSC •Enabling political environment •Private sector recognizes long term benefits
red and d to in each r 4) cal summary of ed and year 4)	•No NISS in the project countries (except Bahamas).	•Content of NISS developed and in draft	•Final versions of full NISS and non-technical summary printed stakeholders •Annual IAS data contributions to the Invasive Species Compendium •National IAS legislation enacted.	•NISS document •Non-technical summary of NISS document	•Governments willing to adopt NISS •Stakeholders recognize need for unified national strategies

COMPONENT 2: Establishment of Caribbean Wide Cooperation and Strategy						
Outcome 2: Increased regional cooperation to reduce risk posed to biodiversity of global significance from invasive alien species						
	Indicator	**Baseline**	**Mid-term target**	**End of Project target**	**Sources of verification**	**Risks and assumptions**
	•Regional IAS strategy and cooperation mechanism established and operational	•No existing regional strategy for reducing risk from IAS	•n/a	•Regional strategy and cooperation mechanism operational	•CRISIS document produced, disseminated and being implemented	
Output 2.1 National and regional coordination mechanisms for a regional cooperation framework	•International Project Steering Committee (PSC) established and operational (year 1) •Regional IAS working groups established (year 1) •Regional cooperation mechanisms for IAS in place (year 4)	•No PSC • No regional working groups on environmental IAS (marine, aquatic, terrestrial); CISWG focuses on agricultural pests and has advanced network; no regional cooperation framework for environmental IAS	•PSC established operational •Regional working groups for environmental IAS established & operational	•PSC established & operational •Regional cooperation framework for environmental IAS in place	•PSC meeting reports •Working group reports •Project progress reports	•Commitment of project partners, particularly CISWG, to regional collaboration remains strong; no political or institutional constraints •Potential conflicts of interest can be minimized
Output 2.2 Draft region- wide invasive species strategies	•Draft CRISIS document, including marine, aquatic & terrestrial IAS, prepared & disseminated (year 4)	•No detailed treatment of marine, aquatic & terrestrial IAS in CRISIS document	•Regional strategies in preparation	•Revised CRISIS document prepared & disseminated	•Working group reports •Revised CRISIS document	•Working groups agree on regional strategies •CISWG is receptive to inputs to CRISIS document.

COMPONENT 3: Knowledge generation, management and dissemination						
Outcome 3: Access to data and best practice established, and public awareness of IAS strengthened						
	Indicator	**Baseline**	**Mid-term target**	**End of Project target**	**Sources of verification**	**Risks and assumptions**
	•IAS information available to stakeholders and public	•Limited availability and understanding of IAS information	•n/a	•IAS information widely available to stakeholders and public	•IAS information available in different media for public and stakeholders to access	
Output 3.1 Data, information and best practice on IAS management collated.	• Critical Situation Analysis (CSA) for each country finalized and disseminated (year 2) • Best Practice Guidelines on IAS management developed; booklet produced and disseminated (year 4)	•Draft CSAs prepared during PPG •No Best Practice Guidelines available	•CSAs completed & disseminated •Mid-term target for Best Practice Guidelines: to be produced in years 3 & 4)	• CSAs have informed Best Practice Guidelines & Regional Strategies (Output 2.2.) • Best Practice Guidelines produced and disseminated	• CSA document for each country • Booklet of Best Practice Guidelines	• Data available to complete CSAs • Timely provision of information from CSAs, regional strategies and pilot projects to inform Best Practice Guidelines
Output 3.2 Pilot findings, existing and externally funded IAS-related research at national and regional levels documented.	• Regional lionfish control strategy developed and disseminated (year 3) •Stakeholders (policymakers, practitioners) understand key findings and lessons learnt from pilot projects (year	•No regional strategy for lionfish control •Solutions to IAS problems addressed by pilots are not well understood	•Lionfish pilot project findings documented •Stakeholder visits to all pilot sites	• Regional lionfish strategy disseminated to identified stakeholders (paper copy) and electronically (via website) • Key findings & lessons learnt disseminated	• Regional lionfish strategy (paper and electronic versions) • Technical reports on national pilots • Key lessons learnt available to stakeholders via website	• Bahamas and Jamaica cooperate effectively on lionfish • Effective lionfish control strategy is identified by pilot projects • Public interest in pilot projects is fostered and maintained

	4)			to stakeholders • Stakeholder questionnaire shows good understanding of pilot projects	•Questionnaire results	
Output 3.3 Electronic networking systems, including linkages to GISP, GISIN and IABIN established.	•Project website operational (year 1) •Linkages to GISP, GISIN and IABIN websites •Project findings disseminated through Invasive Species Compendium (ISC)	•No project website •No linkages to other databases •ISC under development	•Project website for internal use •Linkages to other websites functional •ISC launched	•Project website available as global resource •Up-to-date project information provided to other databases •Project findings included in ISC	•Project website •Project information on IABIN and GISIN websites •Content of ISC	•Target groups motivated to participate and make use of electronic media •Global demand for IAS information available electronically •GISP, IABIN & GISIN websites can accommodate project information •ISC development continues on schedule
Output 3.4 Public communication media & measures developed.	•Pilot project activities and findings disseminated through public communication media •Public awareness of IAS increased •Private sector actively engaged	•Little or no publicity of the IAS problems addressed by the pilot projects •Low public awareness of IAS issues	•Public awareness baselines assessed •Target stakeholders agreed, including in private sector	•Public awareness of pilots increased by 20%	•Publicity materials •Data on levels of public awareness at beginning & end of project	•Low initial levels of public awareness •General public receptive to information on environmental issues

COMPONENT 4: Prevention of new IAS introductions in terrestrial, freshwater and marine systems.						
Outcome 4: Increased capacity to strengthen prevention of new IAS introductions						
	Indicator	**Baseline**	**Mid-term target**	**End of Project target**	**Sources of verification**	**Risks and assumptions**
	•Human & technical capacity to prevent biological invasions strengthened • Prevention or early detection & response to invasions by target IAS in pilot areas	•No staff in target areas trained specifically in IAS prevention methods •Pilot areas free of target IAS	•n/a	•Staff & trainers trained with assigned IAS responsibilities in relevant institutions and private sector •Monitoring plans in place & operational	•Monitoring plan being implemented	
Output 4.1 National capacity to prevent biological invasions strengthened (Trinidad & Tobago, Saint Lucia).	**St Lucia pilot:** •Increased capacity of field staff to monitor for biological invasions •Continued absence of IAS threatening rare endemic reptiles on Maria Islands pilot site (10 hectares)	**St Lucia:** •No IAS posing threat to rare endemic species •No systematic monitoring in place	**St Lucia:** •No IAS posing threat to rare endemic species •Baseline survey completed by end year 1 •Staff trained •Detailed activity plan in place •Private sector engaged	**St Lucia:** •No IAS posing threat to rare endemic species •Monitoring plan developed, implemented, with buy-in from majority of stakeholders	**St Lucia:** •Project reports •Monitoring plan	**St Lucia:** •No IAS posing threat to rare endemic reptiles are present on Maria Island at start of project
	Trinidad & Tobago pilot 1: •Increased ability of stakeholders to detect and report occurrences of Frosty Pod Rot (FPR) for all cocoa growing areas of T & T – 6,900ha •National emergency plan developed and operational	**Trinidad & Tobago:** •FPR absent from Trinidad & Tobago •Little local knowledge about FPR •No emergency plan in place	**Trinidad & Tobago:** •FPR absent from Trinidad & Tobago •Rapid survey completed by end year 1 •Trainers trained •Private sector engaged	**Trinidad & Tobago:** •FPR absent from Trinidad & Tobago •3 trainers & 60 stakeholders trained in field identification & reporting of FPR •Continuous	**Trinidad & Tobago:** •Database of survey results •Monitoring records •Project reports	**Trinidad & Tobago:**

			•Pathway analysis completed •Hotline established	monitoring system for FPR in place with private sector buy-in		
	Trinidad & Tobago pilot 2: • Enhanced national capacity to prevent biological invasion in fresh water and marine ecosystems in Trinidad and Tobago. • Increased ability of general public, with specific emphasis on key aquatic stakeholders such as fishermen, dive tour operators' divers, yacht owners / operators, maritime personnel and students to recognize and report aquatic IAS. • Development of actions to prevent / reduce the number of aquatic IAS introduced into freshwater and marine ecosystems in Trinidad and Tobago.	• Limited programmes in place to educate stakeholders on marine and freshwater IAS, resulting in little to no awareness of aquatic IAS and their impacts. • Little or no preventive actions being taken to reduce introductions	• Baseline level assessment of the level of awareness of aquatic resource users completed by end of 2012 • Actions to reduce introductions developed and recorded	• Increased level of awareness about aquatic IAS and their impacts among key aquatic stakeholders by 20%. • Report on status of aquatic IAS available. At least 3 actions to prevent introductions documented		

COMPONENT 5: Early detection, rapid response and control of IAS impacts						
Outcome 5: Increased capacity to detect, respond, control and manage IAS impacting globally significant biodiversity						
	Indicator	**Baseline**	**Mid-term target**	**End of Project target**	**Sources of verification**	**Risks and assumptions**
	•Improved control & management of IAS	•No coordinated control and response to IAS	•n/a	•Management and monitoring plans in place	•Management plans being implemented	
Output 5.1 Populations of invasive animals and plants (Dominican Republic,) under control and management	**Dominican Republic pilot:** •Abundance & distribution of threatened native species (birds & reptiles) in pilot sites (Alto Velo, 100ha), Cabritos, 2,400 ha) determined (baseline) •Presence and abundance of target IAS determined (baseline) •Eradication strategies developed & implemented •Post-eradication monitoring of IAS and threatened native species	**Dominican Republic:** •Native species (e.g. Anolis lizard) threatened by IAS •Current status of IAS in pilot sites unknown	**Dominican Republic:** •Baseline data available by end year 1 •Eradication strategy developed	**Dominican Republic:** •Post-eradication monitoring data available •Target IAS absent from pilot sites •Increased abundance of species threatened by target IAS	**Dominican Republic:** •Baseline survey data •Post-eradication monitoring data •Project reports	**Dominican Republic:** •Invasive mammals and plants at pilot sites adversely affect threatened native species •Local communities support project and agree to keep goats off pilot site areas
	Jamaica pilot: • Abundance & distribution of native iguana in Hellshire Hills) determined (baseline) • Control and management strategies for target IAS developed & implemented in conservation zone	**Jamaica:** •Non-native predators threatening native iguanas on Goat Islands •Current status of IAS in pilot sites unknown	**Jamaica:** •Baseline data available by end year 1 •Eradication strategy developed •Rangers & other stake-holders trained	**Jamaica:** • Measurable reduction of target IAS densities in core iguana area • Increased survival of iguanas and increase in size of wild population in Hellshire Hills	**Jamaica:** • Documented reduction in density of target IAS in core iguana area in Hellshire Hills • Documented occurrences of new nesting areas in Hellshire Hills • Reports on occurrences of IAS on fringe of the iguana conservation and documentation of IAS removal.	**Jamaica:** •Invasive predators threaten native iguana populations on Goat Islands •Post-eradication, Goat Islands will provide suitable nesting sites for native iguana •Head-started iguanas will be available for release on Goat Islands

Output 5.2 Populations of invasive animals and plants (Saint Lucia) eradicated	**Saint Lucia pilot:** •Surveys of native and exotic iguana population in Soufriere at beginning (baseline) & end of project (impact). •Live trapping grid established & implemented •Exotic iguana population controlled and managed	**Saint Lucia:** •No data on abundance & distribution of exotic iguanas, or impact on native iguana populations	**Saint Lucia:** •Baseline data available by end year 1 •Live trapping grid established •Field staff, dogs & dog-handlers trained	**Saint Lucia:** • At least five detection and/or capture methods assessed with a minimum of three being field tested • Contingency plan for conservation of St. Lucia iguana in presence of alien iguana	**Saint Lucia:** •Survey data from live trapping grids •Project reports • Contingency plan	**Saint Lucia:** •Exotic iguanas pose threat to rare native species, including potential for interbreeding •Dogs can be trained to find nests of exotic iguanas •Exotic species will not be re-introduced
Output 5.3 Marine IAS controlled and managed (Bahamas, Jamaica, Trinidad & Tobago)	**Bahamas & Jamaica pilots:** •Baseline data on lionfish incidence available (year 1) •Lionfish collection & handling protocol in place (year 1) •Effective control method for lionfish identified (year 2) •Policies & regulations in place to facilitate lionfish management (year 4) •Adaptive management plan for lionfish in place in both countries (year 4) •Regional lionfish control strategy developed and disseminated: see Output 3.2	**Bahamas & Jamaica:** •Accurate baseline data on lionfish incidence not available •Control methods poorly understood No coordinated response mechanism	**Bahamas & Jamaica:** •Baseline data collected and analyzed by end year 1 •Collection & handling protocol developed •Most effective control method identified from population control experiment (Bahamas)	**Bahamas & Jamaica:** •Policies & regulations on lionfish control & management in place •Adaptive management plan in place	**Bahamas & Jamaica:** •Survey data •Results from population control experiment (Bahamas) •Pamphlet on collection & handling •Project reports •Government policies and regulations •Management plan document	**Bahamas & Jamaica:** •Lionfish invasion continues to spread southwards in WCR •Countries willing to share knowledge & expertise
	Trinidad & Tobago pilot: •Baseline data on green mussel distribution available (year 1) •Environmental impact of green mussel determined in coastal areas of T&T with emphasis on west coast (year 1) •Economic impact of green mussel determined (year 2) •Effective method for control & management identified & tested (year 4)	**Trinidad & Tobago:** •No data available on environmental & economic impacts of green mussel •No coordinated management strategy in place	**Trinidad & Tobago:** •Baseline data available (year 1) •Data on environmental (by end year 1) & economic impacts of green mussel available •Field staff trained	**Trinidad & Tobago:** •Effective control & management methods identified •Improvement in community structure associated with green mussel at pilot sites	**Trinidad & Tobago:** •Reports of environmental & economic impact assessments •Project reports •Training course reports	**Trinidad & Tobago:** •Environmental & economic impact of green mussel justifies investment in control methods •Conflicts of interest can be kept minimal

Output 5.4 Protection measures for sites of high conservation value (Jamaica, Trinidad & Tobago)	**Jamaica pilot (Black River Morass RAMSAR site, 5,700 ha):** • Ecosystem evaluation completed (year 1) • Baseline map of pilot area (year 1) • Target species removed (year4) • Native species re-established by replanting (year4) • Mapping after project interventions	**Jamaica (Black River Morass):** • No baseline data available for pilot site	**Jamaica (Black River Morass):** • Ecosystem evaluation completed (by year 1) • Baseline map available (by end year 1) • Native species nursery established	**Jamaica (Black River Morass):** • Target species controlled and managed in target area • Area replanted with native species • Adaptive Management Plan in place	**Jamaica (Black River Morass):** • Ecological report • Maps showing habitat status before and after interventions • Adaptive Management Plan document	**Jamaica (Black River Morass):** • IAS have an adverse ecological impact in pilot site • Native plants re-establish successfully from seedlings
	Trinidad & Tobago pilot **(Nariva Swamp, 3,600ha):** • Plant IAS removed from pilot area (year 3) • Native palm seedlings reestablished (year 4) • Incidence of invasive palm pests (red palm mite & coconut moth) determined (every 2 months) • Pest control methods developed & implemented (year 4)	**Trinidad & Tobago pilot** **(Nariva Swamp:** • No baseline data on impacts of plant and pest IAS in pilot area	**Trinidad & Tobago pilot** **(Nariva Swamp:** • Baseline survey of invasive palm pests (red palm mite & coconut moth) by scoring leaf infestation levels (by end year 1) • Baseline survey of indicator native palm species Moriche Palm (Mauritia flexuosa) and Trinidad Royal Palm (Roystonea oleracea) by end year 1.	**Trinidad & Tobago pilot** **(Nariva Swamp:** • Plant IAS controlled and managed in pilot area • Risk posed by invasive palm pests (red palm mite & coconut moth) determined (by scoring leaf infestation levels) • Pest control methods developed & implemented	**Trinidad & Tobago pilot** **(Nariva Swamp:** • Survey data (density of indicator palm species, incidence of invasive palm pests) • Project reports • Nursery records	**Trinidad & Tobago pilot** **(Nariva Swamp:** • IAS pose significant threat to native palm biodiversity in pilot area • Effective control methods for palm pests exist

ANNEX I – MEMBERS OF PROJECT NATIONAL STEERING COMMITTEES

Dominican Republic:

No.	Name	Position/Agency
1	Carlos Rijo	Coordinador Nacional/Ministerio de Medio Ambiente
2	Bienvenido Marchena	Encargado de conservación/Acuario Nacional
3	Claritza de los Santos	Técnica Departamento de Botánica/Jardín Botánico Nacional
4	Celeste Mir	Directora/Museo de Historia Natural
5	Adrell Núñez	Encargado Clínica/Parque Zoológico Nacional
6	Farailda Troncoso	Técnica/Dirección General de Ganadería
7	Juan Clase	Entomólogo/Sanidad Vegetal, Ministerio de Agricultura
8	Sardis Medrano	Investigadora-Entomóloga/Instituto Dominicano para las Investigaciones Agropecuarias y Forestales (IDIAF)
9	Jeannette Mateo Tarsis Alcántara	Encargada de acuacultura/ Concejo Dominicano para la Pesca y Acuacultura (CODOPESCA). Técnico/CODOPESCA
10	Juan Lorenzo Castillo Paulino	Encargado Programa Aduanas Verdes/Dirección General de Aduanas
11	Jorge Brocca	Director Ejecutivo/Sociedad Ornitológica de la Hispaniola (SOH)
12	Olmedo León Acevedo	Encargado de Medio Ambiente/Sociedad Ecológica del Cibao (SOECI)
13	Enrique Fabián	Encargado de Reserva Científica/Fundación Loma Quita Espuela
14	Francisco Núñez	Director Programa Protección Ambiental/The Nature Conservancy (TNC)
15	Altagracia Espinosa César Mateo	Director(a) Escuela de Biología/Universidad Autónoma de Santo Domingo (UASD)
16	José Contreras	Director Diplomados/ Instituto Tecnológico de Santo Domingo (INTEC)
17	Roberto Suriel Melba Cruz	Director Escuela de Agronomía/Universidad Nacional Pedro Henríquez Ureña (UNPHU)
18	Cecilia Fonseca	Directora Escuela de Veterinaria/Universidad Central del Este (UCE)
19	Héctor Andújar Pablo Feliz	Técnico/Grupo Jaragua

Jamaica:

No.	Name	Position/Agency
1	Mrs. Sheries Simpson (Acting Chair)	Projects Planning and Monitoring Branch, NEPA
2	Mrs. Nelsa English-Johnson	MTIASIC Project, NEPA
3	Ms. Yvette Strong	Conservation & Protection Subdivision, NEPA
4	Ms. Andrea Donaldson	Ecosystems Management Branch, NEPA
5	Ms. Patrice Gilpin	Public Education & Community Outreach Branch, NEPA
6	Mrs. Dionne Newell	Natural History Museum of Jamaica, Institute of Jamaica
7	Dr. Sean Townsend	Urban Development Corporation
8	Miss Faith Walker	MTIASIC Project, NEPA (Recordg. Secry.)
9	Mr. Jerome Smith	Ministry of Water, Land, Environment & Climate Change
10	Ms. Ta`Chala Joevanka	Fisheries Division
11	Prof. Kurt McLean	University of the West Indies, Mona
12	Miss Kimberly Stephenson	Jamaica Iguana Recovery Group, UWI

13	Ms. Claudette Hill	Jamaica Customs
14	Dr. Dayne Buddo	Discovery Bay Marine Laboratory (DBML), UWI
15	Dr. Elaine Fisher	Scientific Authority of Jamaica

Saint Lucia:[60]

Agency represented		Type
Agricultural Research Unit	Head, Crop Protection, Propagation, Quarantine, Pesticides	Part of Ministry of Agriculture, Food Production, Fisheries and Rural Development (previously: Ministry of Agriculture, Lands, Fisheries and Forestry) (MAFF)
Biodiversity Unit	Consists of Head + secretary only	Initially part of MAFF, then Ministry of Sustainable Development, Energy, Science and Technology (MSDEST)
Caribbean Environmental Health Institute (CEHI)	Whoever could make it, if any	Intergovernmental
Coastal Zone Management Unit	Consists of single person: Lavern Walker, the Luvina Alexander	Initially part of Ministry of Physical Planning and the Environment, then MSDEST
Customs & Excise Department	Port inspection: Ronald Moonie	Reports to Ministry of Finance
Durrell Wildlife Conservation Trust (Durrell)	Consists of single person: Matt Morton	International NGO
Environmental Health Division	Never showed up	Part of *Ministry* of *Health,* Wellness, Human Services and Gender Relations
Fisheries Department	Allena Joseph plus a dozen others on rotation	Part of MAFF - aquatic pilot lead
Forestry Department	Project Director, Departmental Management, Wildlife Officer (plus staff sometimes), Watershed Management, Forest Management, Range Officers, Environmental Education, Floral Research, plus ad hoc as needed: mapping, extension, etc.	Initially part of MAFF, then MSDEST - Overall project management, strategic and terrestrial pilot lead
National Emergency Management Organization (NEMO)	Director or deputy if absent	Statutory body
Organisation of Eastern Caribbean States (OECS)	Rarely showed up and then sent second row.	Intergovernmental
Saint Lucia Air & Seaports Authority (SLASPA)	Director of Marine Affairs or delegate	Reports to *Ministry* of *Communications*, Works, Transport & Public Utilities (previously: Ministry of Communications and Works)
Saint Lucia Animal Protection Society (SLAPS)	Maria Grech, who also sat in for the SLNT and/or Natalie Boodram, who was there as freshwater expert form CEHI	NGO
Saint Lucia Dive Association (ANBAGLO)	President (rotates annually), sometimes past presidents too	Private Sector
Saint Lucia National Trust (SLNT)	Conservation Manager, Maria Island Manager and others	NGO
Soufrière Regional Development Foundation	CEO	NGO

[60] In Saint Lucia the NSC was formed by delegates from Governmental agencies, NGOs and other bodies. This arrangement was preferred rather than personal names. Still, often the participants were always the same people.

Soufrière Marine Management Association (SMMA)	Director	NGO
Sustainable Development Unit	GEF OFP, sometimes Head of Unit, sometimes other delegate	Initially part of Ministry of Physical Planning and the Environment, then MSDEST
Tourism Officer	Deepa Girdari is only Tourism Officer	Ministry of Tourism
Veterinary and Livestock Division	Sharmane Edwards or Auria King more often than others. Sometimes Cheif Vet or Bee disease expert	Part of MAFF

ANNEX J – INITIAL REGIONAL AND GLOBAL PROJECT PARTNERS

Partner agency	Role	Date of Letters of Commitment
Caribbean Community (CARICOM)	•Publicity at relevant meetings and in relevant bodies, e.g. CISWG •Support to policy and legislative regime including harmonisation of Plant and Animal Health Legislation •Support for infrastructure development •Advocacy for strategies for managing IAS in the CARICOM countries •Support or development of mechanisms for coordination of IAS issues	26-Nov-08
Centre for Resource Management and Environmental Studies (CERMES)	•Provide training through the delivery of short courses •Supervise student research projects in areas relevant to the project	22 June 2007 and 10 November 2008
Caribbean Invasive Species Working Group (CISWG)	•Assist the 12 countries represented in CISWG, which include four of the five GEF pilot countries, with the development and implementation of national invasive species strategies (Components 1, 4 & 5 of GEF project) •Collaborate with CABI on the further development of CISWG's CRISIS to cover also IAS of primarily environmental importance, including aquatic IAS (Component 2) •Continue to organise regular (at least annual) CISWG meetings at which the GEF initiative will be invited to share experiences with all attending CISWG members (Component 3) •Provide access to CISWG's d-groups on priority IAS for interested project partners for regular information exchange (Component 3) •Coordinate the further development of the *Caribbean Invasive Species Surveillance and Information Program* (CISSIP) (Components 2 & 3) with CABI •Influence policy makers to endorse and collaborate with the GEF initiative, e.g. with the relevant CARICOM bodies and/or Governments (Component 2)	13 June 2007 and 19 November 2008
Caribbean Taxonomic Network (CARINET) and Caribbean Pest Information Network CARIPESTNET	•Diagnostic services, staff involvement (arthropods, micro-organisms, nematodes, molluscs, weeds) •Design and development of a searchable database for IAS photo gallery •Capacity building – regional training workshop •Active participation in CISWG meetings and associated activities •Miscellaneous – meetings, surveys, office supplies	6/21/2007 11/12/2008
Council of Presidents of the Environment (COPE)	•Communication and dissemination of information, especially to Non-Governmental Organisation (NGOs) in Trinidad & Tobago	Offer made during PDF-A and PPG stakeholder workshops, 22-26 Jan 2007 and 29 Sept. – 3 Oct., 2008, respectively
Environmental Law Institute (ELI)	•Include an invasive species expert as a presenter at the ELI's judicial training for judges in the insular Caribbean project •Feature the invasive species issue in the moot court exercise as part of the judicial training for judges in the insular Caribbean •Include appropriate materials on invasive species in the course book provided to the judge participants	17 December, 2008
Florida A&M University (FAMU) – Center for Biological Control	•Active participation in CISWG meetings and associated activities •Research on priority invasive pest threat – mainly insects. •Development and deployment of lucid identification tools. •Development of human capital through training. •Contribute to the development of regional safeguarding strategies through active participation in CISWG and other regional networks.	6/16/2007 12/2/2008
FAO	•Knowledge sharing •Global Networking •Participation in CISWG meetings •Technical support, back-stopping	28 November, 2008

InGrip Consulting and Animal Control (Germany)	•Work worldwide on control and eradication of terrestrial invasive alien vertebrates and exotic ants •Strong interest in conservation of native species which are under threat of IAS, e.g. sea turtles, iguanas, snakes, seabirds, doves and the last endemic mammal spp. of the terrestrial Caribbean (the hutias) •Training of governmental and non-governmental staff and conservation workers in techniques of permanent control or eradication of terrestrial invasive vertebrates •Assistance in setting up monitoring schemes for future protection of cleared areas and the prevention of new invasions by invasive animals at these sites •Facilitation in establishment of contacts or partnerships and assistance at seeking funds or donations for urgent projects and practical field work against invasive species	21 June, 2007
Institute of Marine Affairs (IMA)	•Research (e.g. physical monitoring, desk studies of databases) on *Perna viridis* and *Caulerpa taxifolia* •Training, public awareness and dissemination of information on MIS	06 July 2007 See also Govt of Trinidad &Tobago letter 13 January 09
Inter-American Biodiversity Information Network's (IABIN) Invasives Information Network (I3N)	•Contribute to the development of this proposal at a level according to the level of support from the PPG. •Provide IABIN Invasive Information Network (I3N) Standards and Protocols on IAS data exchange for the Caribbean region •Train users in the Caribbean on IAS issues and I3N tools •Adapt the I3N tool to risk analysis and pathway analysis to Caribbean priorities •Administer an IAS content building grant for the Dominican Republic	19 June 2007 1 December 2008
Inter-American Institute for Cooperation in Agriculture (IICA)	•Provide technical support for the FSP phase of the project •Attendance and participation in the FSP International Stakeholders Workshop •Attendance and participation in CISWG meetings •Provide technical support to countries on controlling, managing and/or eradicating IAS that are plant and animal pests •Dissemination of relevant information •Stage and/or participate in seminars, workshops or special activities on IAS •Make available the IICA country offices for seminars, workshops, meetings and special activities •Provide secretarial support, materials and equipment such as computers, printers, fax machines, paper and CDs.	13 June 2007 and 8 December 2008
The World Conservation Union (IUCN)	Managing IAS that are threatening important biodiversity: •Application of the ecosystem approach •Invasion reduction and the restoration of affected systems •IAS knowledge management •Support to GISP	28 June, 2007
Regional Activity Centre - Regional Marine Pollution Emergency Information and Training Centre (RAC/REMPEITC)	•Capacity building; i.e. inform of courses and workshops undertaken by GloBallast in the region, if possibly invite persons in Island states IAS project as observers•Exchange guidelines etc. developed by GloBallast i.e. GloBallast water course; Guidelines for rapid assessment of current status; Guidelines for national BW management system; Model legislation and training thereof; Compliance, monitoring and enforcement models and indicators; Port baseline survey protocols; Database design criteria•Assist countries with ratification of Cartagena convention and SPAW protocol, which instrument can be used as a legal basis of the response of the IAS issue•Assist Lead Partner Countries on GloBallast project with a view to share the knowledge gained regarding the implementation of BW management initiatives in the region•Organise a regional BW management meeting in 2009. The targeted countries for this activity are: Jamaica, Venezuela, Trinidad & Tobago, Bahamas, and Barbados. Additional; countries may be included if more funding materialises	6/21/200711/26/2008
The Trust for Sustainable Livelihoods, Trinidad & Tobago (SUSTRUST)	•Assist in project development, implementation and evaluation in areas related to biodiversity and natural resources management. •Access to human resources in various disciplines across the Caribbean through network of professionals across the Caribbean, including senior officers in government, intergovernmental and nongovernmental agencies.	11 November, 2008

The Nature Conservancy (TNC)	Policy specialists will contribute recommendations for IAS prevention: •Participation of programme staff in national planning and strategic activities for the Bahamas •Capacity assistance on invasives species management in national parks (e.g., Melaleuca quinquenervia) in the Bahamas; •Participation of programme staff in national planning and strategic activities for the Dominican Republic	18 July, 2007
	•Identification and prioritization of specific pathways for the movement of invasive species within the Caribbean and Meso-American region •Policy assistance through the development and dissemination of a national model invasive species strategy and integration of regional priorities into the upcoming in depth review of invasive alien species under the Convention on Biological Diversity •Information assistance on national invasive species databases through the Nature Conservancy's work with the Inter-American Biodiversity Information	
	•The Bahamas: Involvement and support in IAS pilot projects (2009- 13) •The Dominican Republic: Involvement in the development and implementation of priority national IAS activities (2009-13) •Regional: Sponsorship of a regional workshop to establish a learning network on IAS and fire management (2009) •Regional: Support for regional coordination, particularly involvement in and follow up to an international workshop sponsored by the Conservancy and the government of New Zealand on Islands and Invasives: Regional Island Coordination to Manage Invasive Species Threats (2010) •General: Support to project countries on technical, policy and information management issues from regional and international staff (2009-13)	1 December, 2008
United Nations Environment Programme – Caribbean Environment Programme (UNEP-CEP)	•Capacity building and training activities in the marine sector, focusing on Marine Protected Areas •Development of National Strategies for SPAW Contracting Parties •Establishment of region-wide cooperation programme •Capacity building for management and early detection of marine systems	14 June 2007 27 November 2008
University of Florida – Institute of Food and Agricultural Sciences (UF-IFAS)	•Provide technical input and support to CISWG to further elaborate and implement CRISIS and the operational component of this strategy, which is CISSIP •Financial support for selected Caribbean regional participants to participate in the annual T-STAR invasive species symposium as a concurrent session with the annual Caribbean Food Crop Society (CFCS) meeting •Support the hosting and facilitate the meeting of CISWG concurrent with the annual CFCS meeting •Technical and research support for Red Palm Mite management and mitigation •Coordination of Caribbean regional activities involving IAS through the UF-IFAS office on International Programs, which serves as the principal point of contact	6/25/2007 12/8/2008
United States Department of Agriculture – Animal and Plant Health Inspection Service (USDA-APHIS)	•Support to the Annual Caribbean Plant Health Director's Meeting •Support to the meetings and related projects of the associated working groups •Support to the fruit fly trapping program for the Caribbean	19 December, 2008

ANNEX K – REFERENCES AND LITERATURE

MTIASIC Key Project Documents: PDF-A, PPG, ProDoc, Mid-term Evaluation Report:

GEF. 2006. PDF-A Document: Mitigating the Threats of Invasive Alien Species in the Insular Caribbean (MTIASIC). Washington, DC. 48pp.

GEF. 2007. Project Identification Form (PIF): Mitigating the Threats of Invasive Alien Species in the Insular Caribbean (MTIASIC). Washington, DC. 7 pp.

GEF. 2007. Project Preparation Grant Request (PPG): Mitigating the Threats of Invasive Alien Species in the Insular Caribbean (MTIASIC). Washington, DC. 4pp.

UNEP. 2009. Project Document: "Mitigating the Threats of Invasive Alien Species in the Insular Caribbean". A funding proposal presented to GEF. 179pp.

Reaser, Jamie. 2011. Mid-Term Evaluation: Mitigating the Threat of Invasive Alien Species in the Insular Caribbean. Project Number GFL/ 2328–2713-4A86 (PMS: GF/1030-09-03). Prepared for UNEP Evaluation Office, Nairobi, Kenya. 223pp.

MTIASIC Outputs and Key Products:

CABI et al.2011. Strategy and Action Plan for Invasive Alien Species in the Caribbean Region 2011-2016. An Output of the project 'Mitigating the Impact of IAS in the Insular Caribbean. UNEP and CABI. Curepe, Trinidad and Tobago. 54 pp.

GEF and UNEP Evaluation methodologies & Guidelines:

GEF. 2008. Technical Document 3: Guidelines for GEF Implementing Agencies in Conducting Terminal Evaluations. Washington, DC. 32pp.

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Price, Richard and Jan Gregor. 2013. Inception Report for Terminal Evaluation: Project "IMPLEMENTING SUSTAINABLE WATER RESOURCES AND WASTEWATER MANAGEMENT IN PACIFIC ISLAND COUNTRIES". Prepared for UNEP Evaluation Office, Nairobi, Kenya. 51pp.

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Alifano, Aurora, R. Griffiths and W Jolley. 2012. Final Operational Report for the Removal of Introduced House Mice from Allen Cay, Exuma Islands, Bahamas. Island Conservation. Unpublished document prepared for Bahamas National Trust (BNT), Nassau, Bahamas.

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ANNEX L – CONSULTANT RESUME

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Citizenship: USA, Venezuela. Languages: fully fluent in English and Spanish; basic Portuguese

Fields of Expertise:

International projects and initiatives on conservation and sustainable use of biodiversity, protected area management, and local sustainable development including strengthening of community organizations, local NGOs and environmental government agencies. Mainstreaming and maximizing biodiversity benefits for local communities and NGOs as well as for governmental conservation agencies. Managing stakeholders' engagement and participatory processes at local, national and international levels. Working with Governments, NGOs and grassroots organizations on establishing and managing public, private and community-owned protected areas. Community-based initiatives, especially with vulnerable communities in the buffer zone and/or inside major public protected areas. Collaborative work with National Governments in the context of International Treaties and inter-governmental bodies to help countries achieve their national and internationally-agreed objectives and priorities related to biodiversity and local development. Development and evaluation of multi and bi lateral funded projects for biodiversity and community-based initiatives, including GEF, USAID, FFEM, among others. Organizing South-South, North-South and Triangular technical exchanges, delivering technical training and know-how transfer for public officers, NGO practitioners and community leaders in less developed countries. Developing 'Long-Term Financial Mechanisms' for community-based initiatives, conservation NGOs and Governmental agencies, including financially-sound ecotourism and bird-tourism ventures, environmental services, carbon and REDD+ feasibility assessments, etc.

Countries / Regions of Expertise:

In-depth, Multi-year involvement in: Ecuador, Chile, Peru, Venezuela, Bolivia, Colombia, USA.
Multi-year, mid-level involvement in: Paraguay
Work experience and/or Mid-high level knowledge of: Trinidad and Tobago, Saint Lucia, Dominican Republic, Panamá, México, Costa Rica, Jamaica, Bahamas and Argentina.

Extensive experience on international cooperation initiatives in: i- tropical mountain landscapes such as the paramos and cloud forests from Venezuela to Ecuador; ii- Guiana Shield, Gran Sabana and Canaima NP in Venezuela; iii- Yungas and Punas in Peru and Bolivia; iv- Orinoco savannas of Colombia and Venezuela (Los Llanos); vi- high altitude tropical wetlands such as the Junín Lake, Peru, and lakes around the Antisana Volcano E.R., Ecuador; vii- Amazon forests in Ecuador, Colombia, Bolivia and Peru; viii- Neotropical coastal-marine regions such as Archipiélago Los Roques and Morrocoy National Parks in Venezuela, Machalilla National Park in Ecuador, Paracas NR in Peru, etc.; ix- Chilean islands in the Humboldt current and nearby seascapes including the Juan Fernandez Archipelago NP; x- Galápagos Archipelago, Ecuador; and xi) some island nations in the Wider Caribbean.