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CONFERENCE OF THE PARTIES TO THE
CONVENTION ON BIOLOGICAL DIVERSITY
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Items 12 and 16 of the provisional agenda*

**INVASIVE ALIEN SPECIES: PROJECT/PROGRAMME LOGICAL FRAMEWORKS
FOR ACHIEVING AICHI BIODIVERSITY TARGET 9 IN THE PACIFIC SMALL
ISLAND DEVELOPING STATES**

Note by the Executive Secretary

1. The Strategic Plan for Biodiversity 2011-2020, with its Aichi Biodiversity Targets, annexed to decision X/2 contains a specific target on invasive alien species, as follows: 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.
2. In paragraph 17(a) of the same decision, the Conference of the Parties requested the Executive Secretary to promote and facilitate, in partnership with relevant international organizations, activities to strengthen capacity for the implementation of the Strategic Plan for Biodiversity 2011-2020, including through regional and/or subregional workshops on updating and revising national biodiversity strategies and action plans, the mainstreaming of biodiversity, the enhancement of the clearing-house mechanism and the mobilization of resources.
3. Furthermore, in paragraph 9(a) of decision XII/17, the Conference of the Parties requested the Executive Secretary to facilitate, through technical and scientific cooperation, in line with Article 18 of the Convention, the development and implementation of regional projects to manage those pathways and invasive or potentially invasive species that have been identified as priorities at the regional level, for example, through the proposed International Islands Initiative for achieving Aichi Biodiversity Target 9 on Invasive Alien Species.
4. Accordingly, with generous financial support from the Japan Biodiversity Fund, the Executive Secretary organized a capacity-building workshop to facilitate the International Islands Initiative for Achieving Aichi Biodiversity Target 9 for small island developing States in the Pacific region in Apia from 8 to 12 August 2016.¹ At this workshop, representatives of national authorities for the environment, agriculture (primarily national plant protection organizations) and national experts on invasive alien species were convened to formulate a comprehensive invasive alien species management programmes in line with the Strategic Plan for Biodiversity, decisions of the Conference of the Parties on invasive alien species and the “Guidelines for invasive species

* UNEP/CBD/COP/13/1.

¹ <https://www.cbd.int/doc/meetings/ais/iasws-2016-01/official/iasws-2016-01-01-add1-1-en.pdf>

management in the Pacific”² published by the Secretariat of the Pacific Community (SPC) and the Secretariat of the Pacific Regional Environment Programme (SPREP) in 2009.

5. Technical and scientific support to this workshop was provided by the following organizations through the participation of resource persons or the provision of information on relevant opportunities for capacity development: Secretariat of the Standard for Trade Development Facility (STDF); Secretariat of the Pacific Regional Environment Programme; the Secretariat of the Pacific Community; BirdLife International; Global Biodiversity Information Facility; Island Conservation; International Union for Conservation of Nature-Invasive Species Specialist Group (IUCN-ISSG); Landcare Research New Zealand, Ltd; and Queensland Department of Agriculture and Fisheries, Australia.

6. The outputs of the workshop include comprehensive programme/project logical frameworks that provide a basis for cross-sectoral and participatory management of invasive alien species in the Pacific towards achieving Aichi Biodiversity Target 9 and which may facilitate resource mobilization by the countries concerned.

7. The logical frameworks developed by the workshop participants are annexed hereto for the information of participants in the thirteenth meeting of the Conference of the Parties. They are made available in the form and language in which they were received by the Secretariat,

² https://www.sprep.org/att/publication/000699_RISSFinalLR.pdf

Cook Islands

Cook Islands Invasive Alien Species and Biosecurity Project proposal

Project Title	Cook Islands to effectively prevent, control and manage the movement of invasive species to enhance the survival of Cook Islands biodiversity and improve livelihoods.
Objective	Prevent the movement of invasive alien species by strengthening and building national and local capacity to enhance the long term survival of threatened species and improve livelihoods.
Project duration	4yrs
Possible international funding agency	GEF, Green Climate Fund, Adaptation Fund, STDF, EU=Bilateral Fund, GBIF, FAO, SPC, SPREP, etc
Total project budget	\$1.6million USD
National Supporting documents	NSDP, NESAF, NBSAP, Draft NISSAP, NES & MOA business plans, DRM plan etc

Description	Strategic objectives	Outcomes	Outputs	Activities	Measurable indicators / targets	Sources of verification	Assumptions and risks	Funding estimates	Source of possible funding agencies
Biosecurity Regulatory framework	1. Development of Regulations for the effective management of invasive species	<p>1.1 Biosecurity regulations as required under the CIs Biosecurity Act 2008 devolved.</p> <p>1.2 Management of IAS at the national level to reduce the risk of invasive species entering the Cook Islands in particular the outer islands</p>	<p>1.1.1 A framework in place to manage and enforce biosecurity activities in the Cook Islands.</p> <p>1.2.1 A priority listing of invasive alien species present in the Cook Islands developed that will have the potential of being controlled by biological agents</p> <p>1.2.2 High risk species and key pathways of IAS that has not yet arrived in the Cook Islands identified.</p>	<p>1.1.1.1 Carry out public consultation on the biosecurity regulation</p> <p>1.1.1.2 Assess the opportunities for Island Councils to introduce bylaws to reduce risks posed by invasive species.</p> <p>1.1.1.3 Biosecurity officers trained on biosecurity legislative requirements</p> <p>1.2.2.1 High risk pathways identified</p>	<p>1.1.1.1.1 By 2020 Biosecurity Regulation completed</p> <p>1.1.1.1.2 Public compliance with biosecurity regulations</p> <p>1.1.1.3.1 Officers on all islands trained on Biosecurity regulations requirements.</p> <p>1.2.2.1.1 all high risk pathways identified</p>	<p>Biosecurity regulation endorsed by cabinet and legislatively recorded and enforced</p> <p>IAS incorporated into island bylaws</p> <p>Priority listing developed</p>	<p>Political by in</p> <p>Legal drafter to develop regulation</p>	\$50,000	GEF/STDF
Capacity Building	2. Strengthen biosecurity procedures and	2.1 Strengthened and improved biosecurity	2.1.1 Capacity building of Biosecurity	2.1.1.1 Build the capacity of Biosecurity officers on	Officers on all islands able to carryout and enforce	Training records and reports	Training materials	\$700,000	GEF/STDF/SPC/NZAID/AU SAID

	<p>Capacity building of relevant agencies on Biosecurity regulation requirements and improve IAS identification and surveillance needs</p>	<p>procedures and improve survey and identification needs</p> <p>2.2 Relevant agencies able to comply with Biosecurity regulation requirements</p>	<p>officers on biosecurity regulations.</p> <p>2.1.2 Capacity for surveillance and prevention strengthened through provision of necessary equipment that are consistent with biosecurity requirement and international standards for the preventions detection and control of IAS</p> <p>2.1.3 Invasive spp including Pest & Diseases identification and survey training needs</p> <p>2.2.1 Relevant agencies meets biosecurity boarder control requirements.</p>	<p>biosecurity regulation requirements.</p> <p>2.1.1.2 Training on necessary equipment that are consistent with biosecurity requirement and international standards for the preventions detection and control of IAS</p> <p>2.1.3.1 Invasive spp including Pest & Diseases identification training</p> <p>2.1.3.1 Invasive species survey training needs</p> <p>2.1.3.2 Surveillance training for new ant around the port areas</p> <p>2.2.1.1 Capacity building of relevant agencies on biosecurity boarder control</p>	<p>biosecurity regulation</p> <p>Border agencies able to comply with biosecurity boarder control requirements</p> <p>By 2020 JPs able to pass Biodiversity decisions</p>	<p>JPs understand and able to pass decisions according to biosecurity regulation</p>			
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			2.2.2 Judiciary (JPs) members ability to rule or pass a decision in accordance to biosecurity act.	requirements. 2.2.2.1 Capacity building of judiciary (JPs) about biosecurity enforcement					
Eradication and Control of invasive species	3a. Eradicate and control invasive species that has not yet spread on some islands to improve biodiversity and livelihood. 3b. Eradicate, control and monitor key invasive species on Pukapuka, Mauke and Takutea	3a.1 Long-term natural restoration of terrestrial ecosystems and their biodiversity through eradication of cocklebur, redpassionfruit and species not yet widely spread 3b.1 Eradicate and monitor rats on Takutea and Suwarrow to restore and increase the bird population on the islands.	3a.1.1 Effectively control and eradicate cocklebur on Pukapuka, red passionfruit on Mauke and relevant invasive species not yet widely spread on islands. 3b.1.2 Feasibility and cost-benefit of eradicating Pacific rats from Takutea and monitoring rats on Suwarrow	3a.1.1.1 Effectively control and eradicate cocklebur on Pukapuka, red passionfruit on Mauke 3a.1.1.2 Relevant invasive species not yet widely spread on islands controlled or eradicated. 3b.1.2.1 Investigate feasibility and cost-benefit of eradicating Pacific rats from Takutea and monitor infestation on Suwarrow 3b.1.2.2 Rat guards and baiting stations at ports	By 2020 number of cocklebur on pukapuka controlled and red passionfruit eradicated Takutea feasibility and cost benefit study completed Number of bait stations at ports	Reports produced	Community support	\$245,000	GEF/Conservation International/Birdlife International
Data collection	4. Stocktake and GIS mapping of invasive alien species distribution in	4.1 Stocktake Stocktaking and GIS mapping of invasive alien species	4.1.1 A stocktake stocktaking of invasive species in the Pa	4.1.1.1 Carry out a stocktake/survey of invasive species in the Pa Enea	Stocktake completed Pa Enea	Survey reports, databases and GIS maps produced	Software	\$360,000	GEF/GBIF/others

	the Pa Enea	distribution the Cook Islands	Enea	4.1.1.2 Database of survey developed 4.1.2 GIS mapping the distribution of invasive species in the Pa Enea	4.1.2.1 GIS map the distribution of invasive species in the Pa Enea	invasive species database produced GIS maps produced for Pa Enea				
Knowledge management to address the impacts caused by IAS	5. Knowledge management to address the impacts of Invasive Species and those that are a potential threat, on the country's biodiversity, economy, livelihoods, food-security and health	5.1 Raise awareness on the impacts of Invasive Species present in Cook Islands, and those that are a potential threat, on the country's biodiversity, economy, livelihoods, food-security and health through various media	5.1.1 Awareness materials of the most damaging terrestrial invasive species not found in Cook Islands but at high risk of arriving from neighbouring countries developed and utilized 5.1.2 Awareness of Island Governments of the threat posed by invasive species 5.1.3 Provide communities with advice to manage problem invasive species	5.1.1.1 Develop and utilise awareness materials of the most damaging terrestrial invasive species not found in Cook Islands but at high risk of arriving from overseas 5.1.2.1 Awareness materials developed and circulated to all islands	Awareness materials developed and widely distributed	Awareness materials circulated	No risk and no assumption?	\$200,000	GEF/STDF/SPC/SPREP/etc	
Project	6. Effectively	6.1 Manage	6.1.1 Well	6.1.1.1		Mid and end of		\$45,000	GEF/etc	

<p>coordinatn</p>	<p>manage biosecurity invasive project</p>	<p>and coordinate biosecurity invasive species project</p>	<p>managed project</p>	<p>Coordinate and manage activities on each of the islands</p>		<p>term evaluation</p>			
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Federal States of Micronesia

GOAL:	Conserve Biodiversity and Protect livelihoods from Threat of Invasive Species							
	PROJECT SUMMARY	Outputs	ACTIVITIES	INDICATORS, BASELINE, TARGET	MEANS OF VERIFICATION	RISK & ASSUMPTIONS	ROLES OF PARTNERS	INDICATIVE RESOURCES
Outcome	The impacts of priority invasive species on biodiversity, economies, livelihoods and health, are widely understood and actions to manage and reduce them are supported	1.1 State partners have agreed and develop awareness programs priorities and key AIS awareness message	1.1. Series of workshop/meetings to develop awareness programs and key AIS awareness message	# of participants, # of meetings	meeting minutes, workshop notes documents	RISK: Each island state may have different priorities on IAS message and it may delay or take time to agree on the message. Assumptions: partners and people may share the message across the country	FSM National Gov: will take the lead in organizing series of workshop and meetings for all four states members; state members: will be responsible to help FSM bring ideas and develop invasive awareness programs that will	\$25,000

							help reduce invasive threats to the islands.
		1.2 All four states of FSM received the biosecurity and AIS video	1.2 Produce short biosecurity video for showing at airport terminal	video produced	all four state received final copy of video	RISK: Each Sate may have different ideas and it will take time to review the video script; Assumption: This video might help increase awareness on invasive species impact to the communities and visitors as well	SPC, SPREP, Quarantine, Port Authorities, Airlines (UA, Nauru, Carolines)
		1.3 United Airline in approved and support biosecurity IAS video	1.3 Conduct meeting to negotiate with Pohnpei Port Authority (PPA) and United Airline to get permission to play the Video at the terminals	# of participants, # of meetings	sign copy of agreement between parties	RISKS: If there's not	RISC reps, Quarantine, Airlines (UA and Nauru)

		1.4 IAS potential pathway are identified and included in States IS awareness materials	1.4 Develop in conjunction with States material on IS, including how to identify and potential pathways and vectors	# of materials developed	copy of materials			
		1.5 IS awareness materials are distributed to all parties and supported.	1.5 Distribute material to all involved IS activities (tourism operators, Marine Protected Area committees, coastal communities, Quarantine, Airports)	# of materials distributed, # of parties received materials	copy of awareness materials			
		1.6 IS goals are incorporated and supported in all outreach events	1.6 Support as appropriate goals of the Regional Biosecurity Plan (RBP), Micronesia Challenge (MC), RISC, National IS Strategy	# of invasive events	articles, newsletters and short documents about the events			STDF Intersate

			(NISSAP), etc. during outreach events				
		Design and apply best practice standards based on latest information	assist farmers with IPM techniques to control other invasive species found in their respective farm sites				
		operational plans developed for top priorities of AIS	Initial control applied, Follow-up visits to known sites and re-apply control where necessary				
		Management plans for 8 priority Target Species are written and approved for implementation: Mile-a-Minute, Kesters curse, African tulip tree, tree sparrow, Eal catfish,	Develop protocol for each species to be targeted for management in all FSM states	Fill indicators and verification materials			

		<p>Milkfish <i>(Reference: iSTOP SAP 2013-2017 Final copy)</i></p>					
		<p>Operat ion plan for eradication species are written and approved for implementatio n: False Sakau Chain of Love, Honolulu Rose</p> <p>Benga l Trumpet, Vine Ivy Gourd</p> <p>Feral Pigeon <i>(Reference: iSTOP SAP2013-2017 Final copy)</i></p>	<p>Develop protocol for each species to be eradicated from all states</p>				

Fiji

	Project description	Measurable indicators / targets	Sources of verification	Assumptions and risks
Goal	Fiji becomes a Centre of Expertise for biodiversity and biosecurity in the Pacific	<p>Trained staff number is sufficient as the regional centre of expertise</p> <p>Equipment required for the work of the regional centre expertise is installed</p> <p>Border measures to halt introduction of alien species, pests and pathogenic agents with high risk of invasions are in place</p>	<p>Record of staff trainings</p> <p>Record of equipment installed at the regional center of expertise</p> <p>Fiji's national legislation to prevent introduction of, and control or eradicate alien species that threaten biodiversity is enacted and effective enforcement is in place</p>	<p>Technical and scientific cooperation should be effective to train staff members</p> <p>The regional and national coordination of relevant authorities, expert institutions, industry and biodiversity stakeholders</p>
Immediate objective (purpose)	<p>To develop strategies and action plans of the regional center of expertise in Fiji</p> <p>To train the staff at the center of expertise on Pest Risk Analysis and undertake environmental impact risk analysis.</p>	<p>Consultation with NBSAPs revision process</p> <p>Number of training events</p>	<p>Updated NBSAPs</p> <p>Record of training events, certificate of training completion, procurement records</p>	<p>Collaboration among relevant Government Partners.</p> <p>Trainers for training are available in Fiji, with collaboration from relevant international Partners.</p> <p>Training opportunities are ensured by the relevant</p>

	<p>To train the staff at the center of expertise on rapid species identification for regulated articles, invasive alien species in the Pacific</p> <p>To install necessary equipment for the center of expertise and a needs inventory for equipment is undertaken and necessary procurement of new equipment is done.</p>	<p>Procurement of equipment necessary for the regional center of expertise</p>		<p>authorities for biodiversity and biosecurity measures</p> <p>Strong political will of Fiji to put biosecurity measures in place to achieve Aichi Biodiversity Target 9 on invasive alien species is developed in Fiji</p>
	<p>To prevent the further spread of African Tulip, <i>Spathodea species</i> towards the non- dominating site.</p> <p>To introduce the bio-control agents for management of plant weeds, <i>Spathodea sp</i> and <i>Lantana sp</i>.</p>	<p>Meeting with the crop protection departments on awareness program.</p> <p>Assessment of biological control agents that should not become pests of other endemic plants in Fiji.</p>	<p>Regional workshops and trainings to be carried out in Fiji specifically for the eradication of African Tulips.</p> <p>Special technical meetings / workshops to explore other ways of eradication and share ideas from others regions on successful eradication programs for similar species.</p> <p>Obtaining the biological control - agent test results against the other plant species which is available in Fiji and are found in the same locality as the IAS</p>	<p>The applications of bio-control agents to controlling IAS plants and weeds in Fiji must be actively pursued and feasible mode of applications should be practiced.</p> <p>Proper training to be provided to the field staffs in order to avoid administer lethal doses of weedicides and to use the bio-agents appropriately.</p> <p>Meeting international standard (ISPM 3 on biological control) as a standard for implementation of the activities</p> <p>Ensure that possible negative environmental impact of biological control are properly investigated before being introduced to any environment.</p>
<p>Outputs</p>	<p>Strategies and action plans of the</p>	<p>NBSAPs of Fiji</p>	<p>Updated NBSAPs of</p>	<p>Communication and collaboration among the</p>

	<p>regional center of expertise</p> <p>Updated list of established Invasive species in Fiji</p> <p>Well qualified and well trained analysts available in Fiji to carry out the field activating regarding the control of Alien Invasive species of weeds</p> <p>Confirmed list of High risk potential Invasive Alien species. This list can be incorporated into the updates.</p> <p>Quarantine risk assessment of the Bio-control agents will be updated</p> <p>Quarantine systems will be updated and all protocols are in place to prevent risks transmissions to trading partners and Fiji</p>	<p>includes the strategies and action plans of the center of expertise</p> <p>To obtain an annotated lists of IAS from the Ministry of Environment and Ministry of Agriculture</p> <p>To identify and recruit a qualified staff to identify IAS</p> <p>Publish a confirmed and a complete lists of IAS in Fiji with priority information based on the risk and impacts</p> <p>Concrete measure will be in place for the Bio agents through Phytosanitary measures</p>	<p>Fiji</p> <p>Verified and validated annotated list of IAS</p> <p>All staffs are well trained in identifying and managing IAS</p> <p>Report on identified gaps to regulate the list of priority IAS weeds in Fiji</p> <p>Concrete and feasible measures to be in the quarantine system for surveillance and management.</p>	<p>relevant Governmental sectors and regional organizations (SPREP, SPC and among others in the Pacific) should be well coordinated for inclusion of the regional center of expertise in the NBSAPs of Fiji.</p> <p>Capacity in species identifications at the border and post border areas.</p> <p>Identification of IAS weeds plants while monitoring and surveillance</p>
<p>Activities</p>	<p>High level meetings of relevant authorities in Fiji on biodiversity and</p>	<p>Meeting reports</p>	<p>Project proposals for establishment of the</p>	<p>Support from the Pacific island countries to establish the centre of expertise in Fiji</p>

	<p>biosecurity, inviting relevant regional organizations to develop strategies and action plans of the regional center of expertise in Fiji</p> <p>Review the list of IAS of weeds and the action plan</p> <p>Training on pest risk analysis and IMPACT ANALYSIS on potential Invasive Alien species</p> <p>Enhance Biosecurity measures to prevent the spread of the alien invasive species to the neighbouring countries such as New Zealand, Tuvalu, Samoa, Tonga, PNG and other countries</p> <p style="text-align: center;">-Implement the sea container Cleanliness ASSURANCE MEASURES</p> <p>Develop a protocol with appropriate systems with the help of expertise to carry out the biological control of IAS (weeds) <i>Spathodea species</i> and <i>Lantana camara</i></p>	<p>Workshops and meetings with relevant department members and the stakeholders to evaluate the Invasive Species List and the presence of IAS weeds in different localities</p> <p>Number of staffs trained for field activities in various localities</p> <p>Pests risk analyses are completed for species and for the Bio control agents</p> <p>Ensure protocols are in placed through peer</p>	<p>regional center of expertise in Fiji to be submitted to the targeted donors (at least for feasibility studies)</p> <p>Verified and validated list of IAS</p> <p>Trained staffs to conduct risk analysis</p> <p>Train the staffs to carry out the management of weeds with the means of Biological control or with other alternative methods</p> <p>Ensure the weed pests are not spreading to the new localities via surveillance in demarcated buffer zones.</p>	<p>Weed pest emerging at new places will be documented, immediately eradicated and reported</p> <p>High density of weed pests are controlled in a given time frame</p> <p>There will be no contamination of chemicals in environment; as biologically safe materials will be used.</p>
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		<p>review</p> <p>Cleaning stations protocols to be reviewed for practicality</p> <p>Protocols are reviewed and are in placed</p>	<p>Identification and confirmation of alien species through DNA barcoding</p>	
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Kiribati**Objective: Rodent prevention, control & eradication**

A1 Generating support

Outcome A1 - Impacts of Rodents invasive species are widely understood and actions supported

OUTCOMES	ACTIVITIES	TARGETS AND DATES	VERIFICATION	RESPONSIBILITY	COST AND SOURCE USD
1.1 Community awareness on rodents broadened via targeted programmes	Provision and Printing of Posters for schools, public places (shops, hospitals airport sea port etc) Kiribati versions describing species of rodents in the country and their impacts (biodiversity, human health etc) and alerting the public to watch out for new ones	From 2016 onwards begin process of designing, then printing and replaced as needed	Print listings and distributions reported to Director ECD, IASC?	IASC, ECD, ALD, PIPA,	
	Upload information of Rodents through MELAD, ECD, ALD website	From late 2016 onwards begin process of uploading through existing website(melad, ecd, ald)	Upload information and reported to Director ECD, IASC	ECD, ALD, PIPA,	
	Encourage and support schools in undertaking class projects / case studies	Alert schools and public to specific useful projects / case studies locally e.g.	Schools provide feedback to IASC on their local surveys	IASC, ALD, CDRC	

	on Rodents	rodents in parts of South Tarawa and outer islands 2016 onwards			
	Give school talks on Rodents	Take opportunities as they arise in 2016 and annually	Lists of schools and dates reported to Director ECD, IASC?	CDRC supported by ECD, ALD, PIPA,	
	Integrate with PIPA/ALD awareness programmes and support outer islands awareness plan	2015 and annually building programme in later years	List of programmes achieved reported annually to Director ECD, IASC?	Interim coordination by IASC, PIPA advice	
	Radio campaign on rodents, threats and management control	2015 and building annually	Annual list of interviews reported to Director ECD, IASC?	Interim coordination by IASC	
	Signage, posters, etc. at focal sites,	2015 and building annually	Details of postings reported to Director ECD, IASC?	Interim coordination by IASC	
	Utilize annual occasions and targeted meetings, for displays on rodents, e.g. Independence Day Environment Week, MELAD Week, World Food Day	2015 and annually	Report to Director ECD, IASC?	Interim coordination by IASC	
	musical campaign on rodents	2016 and annually	Reports to Director ECD, IASC	Interim coordination by IASC	
	Develop local awareness messages for specific sites e.g.	2016 ongoing	Reports to ECD, IASC	IASC with help from WCU	

	rodents, vulnerability of Te Bokikokiko and Kura at Washington				
Rodents awareness raised for domestic traders and registered local vessels distributors and warehouses, etc.	Meetings on site (at traders) to discuss issues and agree on standard procedures	2015 and onwards; at CXI build on 2014 stakeholder workshops with on-site meetings	Report details to Director ALD, IASC?	Interim coordination by IASC	
	Consider the need for rewards and penalties, e.g. publicity, awards, contracts, and implement accordingly	2015 onwards	Director ALD, IASC?	Interim coordination by IASC	
Local counterparts are aware of Kiribati rodents vulnerability and take precautions with cargo preparation	Make contact with counterparts and provide information of rodents from countries of origin including ., Fiji, Honolulu, etc. and encourage hygiene	Provide awareness material from 2016 onward, also provide feedback to suppliers	Foreign suppliers etc. indicate precautions to Director ALD	Biosecurity, IASC	

A2 - Building Capacity

OUTCOME 1.2: The mechanisms to manage Rodents effectively are in place through refined technical skills, infrastructure, technical support, information management and support networks

OUTCOMES	ACTIVITIES	TARGETS AND DATES	VERIFICATION	RESPONSIBILITY	COST AND SOURCE USD
Kiribati IAS Committee and coordinator advise on rodents issues spanning biosecurity (inter	Meet to discuss reviews issues, and inter island movement (boat operators, Kiribati port authority,	Meet regularly (monthly? Bimonthly?) or more frequently in emergencies, events etc., enable sub-	Minutes of meetings sent to Directors?? Reports	IASC and quarantine - link with regional partners e.g. SPREP, PII SPC, specialists	

island)movements	quarantine) MOU, TOR, links with SPREP, etc.	groups for direct action, awareness etc. 2015 onward			
Rodents database and reports collected and maintained at central point(s)	Review and possibly revise format and content of rodents databases and reports and assign staff member to coordinate	Central depository agreed by 2015, some duplication needed at e.g. Betio quarantine office, CXI etc. Electronic copies assessable from environment websites.	Decisions communicated to stakeholders, Directors	IASC -	
Further staff training brings improved knowledge and effectiveness of rodents management, prevention and eradication	<p>Ensure there are sufficiently trained staff to adequately deal with the increased rodents risks</p> <p>Use regional specialists to advise on specific rodent issues</p> <p>Attend workshops on rodents management, eradication etc</p> <p>Utilize GOK specialists or trained staff on rodents control, management</p>	<p>Review how many trained staff are needed at key weak points e.g. Betio, CXI</p> <p>Linkages with SPREP, SPC, other specialists (ants, cats, etc.) increase 2015 onward</p> <p>Training with PILN, USP, SPC etc. workshops, build from 2015</p> <p>More staff trained internally from 2016</p>	<p>Report to Minister</p> <p>Schedule of trained staff kept on rodents database</p> <p>Develop link with PILN to capitalize on many training offers</p>	IASC, Director ALD	

	and eradication Attachments to other countries, organisations e.g. NZ, AUS, FJ, SPREP, SPC	Links with PII (Souad Boudjelas), SPREP, SPC, etc., for providing details of what is available			
Staff are adequately resourced and equipped to do effective rodents work	Determine technical equipment and operating needs of staff and the funding needed to meet this	Develop lists, Seek funding 2016-onward Equip officers 2016 onward	Staff have necessary technical manuals, equipment and operating budget to be effective	Directors ALD, ECD, PIPA	
Programmes developed to prevent rodents from invading non infected islands	Facilitate visits by rodents experts to CXI, TRW to advise on species of rodents	Developed programs completed 2017 onwards	Staff are accessible to programs	Quarantine, ECD,	
A3 - LEGISLATION, POLICY, PLANS, PROCEDURES					
Outcome 1.3 - Appropriate legislation, policies, plans and procedures are being used to drive the effective management of rodents, control and eradication.					
OUTCOMES	ACTIVITIES	TARGETS AND DATES	VERIFICATION	RESPONSIBILITY	COST AND SOURCE USD
Biosecurity Act adequately addresses the biosecurity needs of Kiribati	Review Biosecurity Act to ensure that management of rodents, is reflected in the biosecurity act.	Quarantine, IASC discuss and identify specific amendments to BA 2016	Act amended 2017	Biosecurity, Director ALD, SPC	
Environment Act adequately addresses biosecurity and rodents management needs	Review components of Act, e.g. EIA needs to ensure biosecurity is addressed in detail	ECD, ALD, IASC meets to discuss and identify specific amendments to EA in 2016	Act amended if needed in 2017	IASC, Director ECD, ALD Director, SPREP	

Ports Act adequately addresses rodents pathway	Review to ensure biosecurity issues are addressed	IASC or reps meet with Port and relevant quarantine Officer to identify specific needs	Act amended if needed in 2017	IASC, quarantine Unit, KPA	
K-BSAP effectively addresses biodiversity management needs	Review and revise the K-BSAP	IASC 2016	Plan revised and incorporates priority biodiversity needs in the three archipelagos	ECD, MELAD	
Biosecurity action plans are live and relevant documents	Re visit local action plans biennially, or sooner if required, to in line with KNISSAP	IASC meetings and reviews completed from 2016 onwards	Action plans amended and disseminated to stakeholders	IASC, Biosecurity, WCU (CXI), SPREP, R Pierce	

THEME B - BETTER UNDERSTANDING OF THE ISSUES

B1 - Baseline and Monitoring					
Outcome 2.1: Actions are in place to determine changes in rodents status and threats					
OUTCOMES	ACTIVITIES	TARGETS AND DATES	VERIFICATION	RESPONSIBILITY	COST AND SOURCE USD
Rodent internal distribution & species and hosts is updated throughout Kiribati	Undertake surveillance for rodent species, hosts and infested areas	Plan developed and implemented 2016 to 2017	Survey reports to ALD, and shared with ECD & IASC	ALD/ECD	
Data recording is updated	Compilation of surveillance report & analyst	2017	Survey reports	ALD/ECD	
B2 – Priorities					
Outcome 2.2 - Effective systems are implemented to assess risk and prioritise rodent species for management					
OUTCOMES	ACTIVITIES	TARGETS AND DATES	VERIFICATION	RESPONSIBILITY	COST AND SOURCE USD
Updated and centralized data of	The assessment monitoring plan is	Plans developed and protocols followed	Progression assessment report.	ECD, ALD	

rodent with the ECD desktop.	incorporated with ECD /ALD annual work plan.	2015; ongoing liaison with experts			
Inter island biosecurity are in corporate with communities commitment and enforced.	Continuous community consultation campaign is implemented.	Plan are completed and implemented.	Public feedback	IASC, ALD, ECD	
B3 – Research Needs Outcome 2.3 - Knowledge is updated for priority bio bait for rodent that are harmless to environment and sustainable.					

NIUE

GOAL	By 2020, Invasive species in Niue will be reduced by 30% through appropriate mitigation methods that will reduce its threshold level to a level that would not have any severe impacts to the biodiversity and the livelihoods of all Niueans.				
PROJECT SUMMARY	PROJECT SUMMARY	INDICATORS	MEANS OF VERIFICATION	RISKS / ASSUMPTIONS	COST and POTENTIAL SOURCE
Outcomes	<p>1. Priority IAS are managed and prevent the spread of IAS across International borders and quickly detects and responds to those that arrive.</p> <p>2. Knowledge has been updated for priority IAS, including species biology and impacts, and development of effective management techniques.</p> <p>The impacts of priority established IAS have been eliminated or reduced by eradicating or controlling the target species.</p>	<p>1.1 The number of detections of new IAS arrivals.</p> <p>1.2 The number of new IAS that escape detection</p> <p>1.3 The number and effectiveness of responses recorded annually</p> <p>2.1 The number of IAS information recorded</p> <p>2.2 The number of effective management techniques developed</p> <p>3.1 The number of targeted AIS reduced and/or eliminated</p> <p>3.2 The number of incidents</p>	<p>- Incident reports and log books</p> <p>- Annual or bi-annual Pest survey reports(authenticated results from Land Care New Zealand)</p> <p>- Mid-term review and evaluation report</p> <p>- NISSAP revised document</p> <p>Weed Bio-control report</p> <p>- Prioritised AIS database</p> <p>- Pest management practices related to the pest survey results from annual or bi-annual census</p> <p>- Pacific Region Weed Led Management Database /system</p>	<p>Assumption: Sufficient resources and capacity available.</p> <p>Methods exist to detect all incursions.</p> <p>Baseline data from quarterly/annual/bi-annual census is maintained</p> <p>Biodiversity health status is achieved</p> <p>Food security is maintained</p> <p>Increase in crop production</p>	<p>GEF 6</p> <p>Potentially GEF 7</p> <p>STDF</p> <p>GBIF</p>

		have declined	- SPC Pest List database Terminal evaluation report		
Outputs	<p>1.1 Effective management methods for priority IAS are in place</p> <p>2.1 Inspection and treatment procedures are improved to reduce the risk of new IAS threats to Niue</p> <p>2.2 Measures are in place to control the spread of IAS within Niue</p> <p>2.3 Early detection and rapid response (EDRR) procedures are established for priority potential invaders (species to be identified based on a pathway review and their potential impact)</p> <p>3. 3.1 Bio-control programme is developed and released for</p>	<p>2.1 Quarantine Holding facility at the port(wharf) is established</p> <p>2.2 Improved capacity of Quarantine Staff -qualified officers at port for quarantine procedures</p> <p>Equipment are available for pest diagnostics</p> <p>Current Ballast water Regulations or guidelines updated.</p> <p>Beneficial Biological Control agents in the Pacific is available for IAS control in Niue</p>	<p>Management review and audit reports</p> <p>IS information available</p> <p>DoE annual reports</p> <p>DAFF annual reports</p> <p>Agriculture Census</p> <p>Interception reports</p> <p>Refer to the current NISSAP</p> <p>Survey Results from Quarterly census</p> <p>Pest list database updated</p>	<p>Annual audit and review of management systems.</p> <p>Pest Risk analysis for all imports is documented</p> <p>IAS Management</p> <p>The number of agents released and managed</p>	

	appropriate target IAS				
Activities	<p>1.1a Collate relevant information on the biology and ecology of priority AIS and best practice management methods</p> <p>1.1b Review existing pig management strategy, identify achievable management goals, and redesign program</p> <p>2.1a Identify potential AIS threats, based on pathway analysis and risk assessment(s), coming from other countries and develop appropriate pre-border and at-border interventions for priority AIS</p> <p>2.1b Train Quarantine staff in identification of potential new AIS</p> <p>2.1c Investigate ways to improve the enforcement of existing legislation to include AIS</p>				700k

	<p>2.1d Identify and address issues associate with ballast water and</p>				
	<p>hull-fouling of commercial of commercial and recreational vessels at port and main vessel routes</p> <p>2.1d Ensure EIA is conducted before any live animal imports to the Quarantine Farm</p> <p>2.2a Develop awareness programs to reduce risks of in-country movement of AIS subject to control or eradication programs. Target heavy machinery etc involved in road construction and maintenance</p> <p>2.2b Carry out regular monitoring at distribution centres (Vaipapahi and Mutalau SLM farm) for plants to identify AIS at risk of distribution e.g. yellow crazy ants, weeds)</p> <p>2.3a Adapt the generic SPC Emergency Response</p>				

	<p>Plan (ERP) to address threats to the natural heritage</p>				
	<p>livelihoods of Niueans</p> <p>2.3b Identify potential invaders associated with the new shipping route and ensure these are addressed in plans and procedures</p> <p>2.3c Review pathways identified for AIS to reach Niue and carry out risk assessments for any new pathways as they arise</p> <p>2.3d Carry out surveys for marine invertebrates around the port</p> <p>2.3e Establish an on site holding facility at the port</p> <p>3.1a Identify existing bio-control agents for priority AIS in priority sites identified</p>				

Palau

Project Title: Integrating biodiversity safeguards and conservation into development in Palau

Duration: 2 years

Possible donors: Palau GEF 6, Micronesia Conservation Trust

	PROJECT SUMMARY	INDICATORS	MEANS OF VERIFICATION	RISKS / ASSUMPTIONS	COST AND POTENTIAL SOURCE
Goal	Rehabilitation of coastal and terrestrial ecosystems and responsible management of tourism, fisheries and aquaculture in the Southern Lagoon states of Koror and Peleliu	Percentage of coastal and terrestrial ecosystems, responsible management of tourism, fisheries and aquaculture in the Southern Lagoon of Koror and Peleliu are rehabilitated with native species.	Comparison of records between the Division of Forestry, Division of Fisheries & Aquaculture, Bureau of Tourism, Koror and Peleliu state governments. Database of plant inventory by the Division of Forestry, Division of Fisheries & Aquaculture and Koror and Peleliu state governments	Decrease of tourism, border biosecurity failure, green fund discontinue to disburse profits	(-Project implementation review -Independent review -Midterm review -Midterm evaluation)
Outcomes	<ol style="list-style-type: none"> 1. Reduced invasive species impact on terrestrial and coastal ecosystems 2. The tourism sector is replacing invasive species with non-invasive native species. 3. Tourism sector support and apply best 	Increase of non-invasive native species in ecosystems, tourism sector establishments and aquaculture		<p>Relate with the Palau SAP GOAL 2: To prevent the introduction and establishment of invasive species.</p> <p>NOTE: Goals 2 and 4 are closely related, and their implementation must be coordinated</p> <p>GOAL 3 Reduce negative</p>	

	<p>environmental practices with visitors</p> <p>4. Reduced impact of tourism, fisheries and aquaculture in the states of Koror and Peleliu</p>			<p>impacts of existing invasive species.</p> <p>GOAL 4 Develop and implement more effective collaboration, coordination and participation in efforts and initiatives for invasive species prevention and management among state, national, regional, and international partners.</p>	
<p>Outputs</p>	<p>1. All tour guides and operators complete the biodiversity friendly training certification.</p> <p>2. Tourism sector funding is channeled to the state governments of</p>	<p>1. Majority of restored areas involve number of native plants are planted in more than 50% percentage of areas.</p> <p>2. PAN Fund is regularly approving</p>	<p>1. Number of native species provided by the Division of Forestry and Division of Fisheries & Aquaculture.</p>	<p>Depending on the number of awards by the Recognition Program during the Tourism Symposium of the Belau Tourism Association.</p>	

	<p>Koror and Peleliu ecosystem conservation programs and database</p> <p>3. Piloting of private-community partnerships for conservation and restoration of mangrove forests and other conservation initiatives, such as working with hotels and tourist resorts to convert landscaped gardens using exotic plants to non-invasive species and ensure non-invasive species used in future.</p>	<p>funds for priority conservation projects</p> <p>3. The number of awards from the Recognition Program of the Belau Tourism Association to establishments such as hotels, restaurants, tour operations.</p>			
<p>Activities</p>	<p>1. All tour guides take the Tour Guide Certification class</p>	<p>1. A number of tour guides receive recognition awards from the</p>	<p>1. Records from the Dept. Of Conservation & Law</p>	<p>Native non-invasive species thrive in ecosystems, and biodiversity</p>	<p>1. Outreach, awareness, publications & interpretations: \$20k</p>

	<p>and apply the best practices from the Responsible Tourism campaign</p> <p>2. Both states run Ecosystem Rehabilitation Programs.</p> <p>3. Tourism establishments acquire non-invasive native species from the Bureaus of Forestry and Aquaculture.</p>	<p>Tourism Symposium for applying best practices with guests</p>	<p>Enforcement of Koror State Government</p> <p>2. Ecosystem inventory database from the Bureaus of Forestry and Aquaculture</p> <p>3. Best practices criteria</p>	<p>is protected in Koror and Peleliu states.</p>	<p>2. Meetings & conferences: \$5k</p> <p>3. Signs & billboards: \$20k</p> <p>4. Labour & compensation: \$20k</p> <p>5. Restoration materials: \$20,000</p> <p>6. Total: \$85K</p>
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Papua New Guinea

DEVELOPMENT OF PROJECT PROPOSALS ON AICHI TARGET 9: PNG

1. BACKGROUND: PRIORITY ACTIONS FOR PNG ON INVASIVE ALIEN SPECIES UNDER THE NBSAPs OF PAPUA NEW GUINEA

	Actions in order of Priority	Linkages to National Plans and Strategies	Linkages to Regional and International Policies
1	Prevent and Protect native species and habitats from established and alien invasive species	<ul style="list-style-type: none"> • NBSAP 2007 • PNG Protected Areas Policy • NAQIA Act 1997 • Fauna Control and Protection Act • Biosecurity Bill • Biosafety and Biotechnology Bill • NARI Act 1996 • Plant & Animal Disease Control Act 1953 	<ul style="list-style-type: none"> • UNCBD: Article 8 • Cartagena Protocol • Guidelines for Invasive Species Management in the Pacific
2	Develop and legislate emergency respond plans and early warning systems for alien invasive species		
3	Develop protocols and strategies to enforce, manage and mitigate invasive species		
4	Improving the knowledge and understanding of key stakeholders and the wider public of invasive species and their impacts		
5	Fostering regional and international cooperation and collaboration		
6	Review biosafety and biotechnological framework and Bill		
7	Enact Biosecurity Bill and Regulations		
8	Seek political support		
9	Training and technical capacity building and enhancement		
10	Improving border control and management		

PAPUA NEW GUINEA: PROGRAMME PROPOSAL TO IMPLEMENT AICHI TARGET 9: SUMMARY

Project Title	“PREVENTION, CONTROL AND MANAGEMENT OF INVASIVE ALIEN SPECIES IN PAPUA NEW GUINEA”
Duration	5 Years (2017-2022)
Implementing	UN Environment Programme (UNEP)

Agency			
Executing Agency (ies)	National Agriculture, Quarantine Inspection Authority (NAQIA) Conservation and Environment Protection Authority (CEPA)		
Budget	Source	Type	Amount (USD\$)
	Government of PNG	Cash	500,000
		In-kind	500,000
	Other Partners	Cash/In - Kind	
	GEF 6	Trust fund cash	5, 000 000
	Pacific IAS Regional Capacity Strengthening Project	Trust Fund grant allocation	
Total			6,000,000

PROGRAMME TITLE: “PREVENTION, CONTROL AND MANAGEMENT OF INVASIVE ALIEN SPECIES IN PAPUA NEW GUINEA”

Programme Objective: “ To reduce the environmental, economic and social impacts of invasive alien species in Papua New Guinea”

Project Components	Expected Outcome (s)	Targets	Actions/Activities	Measurable Indicators	Finance		Responsible Agency (ies) and Partners
					Est Cost (USD \$)	Source	
1: National Enabling Policy and Institutional Framework for Prevention, Control and Management of the IAS	1.1. Institutional, policy and legal framework for effective coordination and management of IAS operational in the country, are strengthened and enhanced	1.1. An Institutional and policy framework for Prevention, Control and Management of IAS in PNG is upgraded and improved by 2018	1.1. Develop Papua New Guinea’s National Invasive Species Strategy and Action Plan (2016-2020”) 1.2. Review and Enact the Draft Biosafety and Biotechnology Policy and Bill 1.3. Enact the Biosecurity Bill	1.1. PNG NISSAP 2016-2020 Document 1.2. Gazettal Notice 1.3. Gazettal notice 1.4. SOP and	1,000,000	Pacific IAS project GoPNG GEF 6	CEPA NAQIA DJAG PMNEC Customs NMSA BDA PNGDF PNG Ports Corporation

			<p>1.4. Review and conduct needs analysis on the existing SOP and Protocols</p> <p>1.5. Update standard operating procedures and protocols</p>	Protocol documentation			
<p>2: Enhance systematic, organizational and individual capacities to manage invasive alien species effectively</p>	<p>2.1. Appropriate Skills , Technologies, tools and expertise to control and manage IAS are strengthened and supported</p>	<p>2.1. Appropriate Skills , tools, Technologies and expertise to control and manage IAS are in place in a coordinated manner by 2020</p>	<p>2.1. Establish and maintain a system of technical advice and support based on a national register of invasive species experts and their expertise</p> <p>2.2. Establish an integrated database and information management system on invasive alien species in the country</p> <p>2.3. Strengthen Institutional capacities in biological research and development.</p> <p>2.4. Cross sector training and enhancement of knowledge in invasive alien species</p>	<p>2.1. National Register of IAS experts, tools, skills and technology</p> <p>2.2. Database of IAS in PNG</p> <p>2.3. Number of biological researches carried out</p> <p>2.4. Number of trainings conducted</p>	1,500,000	<p>GEF PAS</p> <p>GoPNG</p> <p>GEF 5 & 6</p>	<p>CEPA</p> <p>NAQIA</p> <p>NARI</p> <p>PNGFA</p> <p>NFA</p> <p>DAL</p> <p>DoT</p> <p>Customs</p> <p>PNG Ports</p> <p>NAC</p> <p>PNG Air Services</p> <p>NMSA</p> <p>DNPM</p>

3: Public Awareness and Support	3.1. Prevention, control and management of impacts of IAS are documented and supported at all levels	3.1. Awareness programmes and tools are documented and available by 2017	3.1. Identify target audience or populace 3.2. Collate and conduct baseline studies or surveys on IAS information 3.3. Documentation of IAS information in the country 3.4. Publication of information on IAS		500,000	GEF PAS GoPNG GEF 5 & 6	NAQIA UPNG NARI PNG Unitech University of Natural Resources NRI Binatang Institute National Forestry Research Institute NFA PNGFA WCS CI TNC Provincial Govts
	3.2. Regional and international cooperation and collaboration established and enhanced		3.2.1. Develop Mechanisms to integrate national IAS management strategies/plan into regional and international programme framework for technical and funding assistance	3.2.1. Monitoring, Evaluation and Reporting Template 3.2.2.	500,000		
4. National Pilot Projects of	4.1. Established alien weeds into	4.1. Total Eradication of	4.1.1 Public Awareness 4.1.2. Delimiting		1,500,000	GEF PAS	NAQIA CEPA

<p>Prevention, Control and Management of Priority IAS on specific habits and sites in PNG</p>	<p>watershed and agricultural lands are eradicated and controlled from spreading</p>	<p>Miconia Tree, <i>Miconia calvescens</i> in the Highlands of Papua New Guinea by 2019</p>	<p>Survey 4.1.3. Conducting Training of key personnel /stakeholders 4.1.4. Acquire appropriate equipment and technology 4.1.5. Mechanical and chemical control 4.1.6. Monitoring and Evaluation 4.1.7. Reporting to relevant national, regional and international authorities and organisations</p>			<p>GoPNG GEF 5 & 6</p>	<p>Customs Provincial Govts Landowners Communities</p>
		<p>4.2. Combined Biological Control of Giant Sensitive weed, <i>Mimosa pigra</i> in the Central, Oro and Madang Provinces of PNG by 2019</p>	<p>4.2.1. Conduct Awareness, and Risk assessment 4.2.2. Importation and Post entry quarantine of bio control agent 4.2.3. host testing and approval from conservator of fauna and flora 4.2.4. Training of field and laboratory officers 4.2.5. Field releases and augmentation 4.2.6. Monitor and Evaluation 4.2.7. Reporting to relevant national, regional and</p>		<p>1,000.000</p>	<p>GoPNG GEF 5 & 6</p>	<p>NAQIA CEPA Customs Provincial Govts Landowners Communities</p>

			international authorities and organisations				
Total					6,000,000		

Samoa**SAMOA'S PRIORITY ACTIVITIES FOR THE NEXT 5 YEARS - IMPLEMENTATION OF TARGET 9 . THE PRIORITY ACTIVITIES ARE IDENTIFIED IN THE SAMOA'S NATIONAL BIODIVERSITY STRATEGY AND ACTION PLAN AND THE SAMOA'S NATIONAL INVASIVE SPECIES ACTION PLAN**

Objectives	Activities	Timeframe	Targeted Donor	Costing (USD)	Responsible Ministry
1) To eradicate invasive species from selective sites with biodiversity values	1.1) Carry out mammal eradication on Nuutele and Nuulua Islands (biodiversity values)	2018-2020	<i>Island Conservation GEF 6</i>	286,415	<i>MNRE</i>
2) To control target invasive species and restore vulnerable ecosystems	2.1) Control and manage the spread of avian species focusing on common & jungle Myna, and the Red-vented bulbul birds in Samoa	2017-2021	<i>Green Climate Fund (GCF)</i>	<i>500K</i>	<i>MNRE</i>
	2.2) Restore and rehabilitate the native forest of Mt Vaea Reserve, by planting native plant species	2019-2021	<i>Green Climate Fund (GCF) Rainforest Restoration Funds</i>	<i>1M</i>	<i>MNRE</i>
	2.3) Manage Invasive mammals and weeds found on Malololelei Reserve and restore forest by replanting with native plants	2017-2021	<i>Green Climate Fund (GCF) GEF 6 Rainforest Restoration Funds</i>	<i>100K</i>	<i>MNRE</i>
	2.4) Manage the merremia peltata at Le Pupu'e National Park	2017-2021	<i>GEF PAS 6</i>	<i>120K</i>	<i>MNRE</i>
3) To ensure new and already established invasive species are	3.1) Revise and update bio-security protocols and ensure Invasive lists is updated		TDF, NZAid, GEF 7, GEF-SGP	<i>1k</i>	<i>MAF - Quarantine Division</i>

prevented from entering the borders of Samoa	<p>3.2) Conduct import risk analysis for newly imported species</p> <p>3.3) All planes and ships entering the borders are monitored through screening process.</p> <p>3.4) Approve and implement the Samoa Invasive Species Emergency Response Plan (SISERP) strategy</p>	2017-2020			MNRE
4) To monitor the spread of Invasive species	4.1) Conduct a delimiting survey for the distribution of rattan palm at Papaseea site and district	2017	SPC	30k	MNRE
	4.2) Eradication of newly detected IAS	2015-2020	GEF PAS 6	20K	MAF & MNRE

Samoa Biosecurity – A coordinating process among the Ministry of Agriculture and Fisheries (MAF) and the Ministry of Natural Resources and Environment (MNRE)

	PROJECT SUMMARY	INDICATORS	MEANS OF VERIFICATION	TARGETED DONOR	COST (USD)	RISKS / ASSUMPTIONS
Goal	To prevent the introduction of alien species with high risk of invasion.					
Outcomes	Priority alien species with high risk of invasion are (eg: mongoose, cane toad and Red	Number of successful interception.	Interception Reports Incidence Reports	GEF 6, Island Conservation	30k	Lack of Resources (e.g. man power, points of entry)

	<p>Imported Fire Ant) effectively intercepted at the border before they establish</p>					
<p>Outputs</p>	<p>1. To strengthen the existing risk analysis procedures and associated import protocols for proposed new introductions.</p> <p>2. Enhance the current inspection system and procedures to ensure that invasive species are not transferred from one country to another or between islands of the same country (e.g</p>	<p>1.1 IRA procedures reviewed and implemented.</p> <p>1.2 Number of species assessed. Pathway risk assessments made.</p> <p>2.1 Biosecurity measures in place</p> <p>2.2 Number of staff working in border protection.</p> <p>2.3 Increased in the number of interceptions.</p> <p>2.4 Increase inspection and treatments of</p>	<p>1.2.1 Import Risk Analysis Reports and Databases</p> <p>2.2.1 Reports from Biosecurity.</p> <p>2.2.2 Invasive Species management strategy documents and reports</p> <p>3.2.1 Community Awareness</p> <p>4.2.1 Emergency Response implementation and monitoring</p>	<p>Island Conservation, GEF 6</p>	<p>150k</p>	<p>Staff Turnover. Enhanced staff skills and knowledge in pathway risk assessment should be needed</p>

	<p>Main Island to Nuulua and Nuutele).</p> <p>3. Increased awareness, engagement and capacity building for alien species.with high risk of invasion</p> <p>4. Bed in the Samoa Invasive Species Emergency Respose Plan (SISERP) system so that it is fully operational and able to react to maximum efficiency</p>	<p>high risk commodities</p> <p>2.5 Emphasis on biosecurity between islands within a country increased.</p> <p>3.1 The level of awareness and capacity that exist.</p> <p>4.1 Relevant Agencies are familiar with the Samoa Invasive Species Emergency Response Plan.</p>				
<p>Activities</p>	<p>identify pathways via which the organisms can</p>			<p>GEF 6,</p>	<p>30K</p>	<p>Capacity of border authority to inspect and</p>

	<p>enter new areas (e.g. species spread naturally, species that are accidentally introduced (e.g. hitch hikers), Species that are deliberately introduced, (e.g. - ornamental trade, new genetic nursery stock)</p> <p>Pre-entry: Identify the organisms or groups of organisms that pose risks and assess their potential impacts.</p> <p>Entry (Border): inspection of goods; checking that goods meet conditions of entry; treatment if required. Post Entry Quarantine available.</p> <p>Post Border Action: Emergency actions Knowing how to respond if an invasive species is</p>					<p>identify alien species</p>
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	<p>detected can minimize the impact that the species has on an area and maximize the potential to control or eradicate it (e.g. ERP).</p> <p>Assist other government departments regarding the monitoring, control or eradication of invasive species.</p>					
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Samoa Offshore islands restoration

	PROJECT SUMMARY	INDICATORS	MEANS OF VERIFICATION	RISKS / ASSUMPTIONS
Goal	To restore the biodiversity assets of Samoa through the management of invasive rats and yellow crazy ants on the offshore islands of Aleipata (Nuutele, Nuulua and Namua)			
Outcomes	Population of native fauna of Samoa increases.	Number of endemic and rare birds, invertebrates, reptiles increases.	Project implementation review Mid term review	

	Native vegetation cover restored	Percentage of Native forest cover increases	Mid term evaluation – Terminal evaluation	
Outputs	<p>1. Operational Plan for the management of IAS on the offshore islands of Aleipata is developed.</p> <p>2. Invasive predators (rats and yellow crazy ants) are successfully controlled and/ or eradicated.</p> <p>3. Increased awareness, engagement and capacity building on management approaches for invasive rats and yellow crazy ants.</p>	<p>1.1 Operational Plan for the management of IAS on the offshore islands of Aleipata is effectively implemented.</p> <p>2.1 No significant reduction on the population of rare species such as the friendly ground dove as a result of the baiting operation</p> <p>2.2 Species indicator improved and response to the baiting operation</p> <p>3.1 Number of new incursion on the offshore islands.</p> <p>3.2 Re-established the MPA Committee</p> <p>3.3. Strengthen participation and commitment of land</p>	<p>1.1.1 Peer reviewed operational plan</p> <p>2.1.1 Non target species monitoring results</p> <p>2.2.1 Monitoring data collected in accordance with the biodiversity monitoring plan.</p> <p>3.1.1 Surveillance survey report</p> <p>3.2.1 MPA committee has TOR</p> <p>3.2.2. guideline on managing developments on island i.e. pigs and chickens</p> <p>4.1.1 Biosecurity Plan</p>	<p>Risk: Conduct awareness and educational programs for the community to take ownership of the value of biodiversity</p> <p>1.1.1.1 Land owners are not cooperative and island restoration is therefore limited</p> <p>3.1.1.1 Eradication operation fails</p> <p>3.1.1.2 Lost of community interest and support overtime</p> <p>Assumption4; Community are supportive of conservation efforts for Aleipata islands</p>

	<p>4. Measures/protocols are in place to prevent the predators from getting back to the islands</p>	<p>owners to effectively manage resources</p> <p>4.1 Biosecurity protocols established and community supports.</p> <p>4.2 Protocol sign boards installed at the entry points.</p>		
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Samoa Management of IAS birds

	PROJECT SUMMARY	INDICATORS	MEANS OF VERIFICATION	RISKS / ASSUMPTIONS
Goal	Native ecosystems is restored through the management of priority invasive birds in Samoa			
Outcomes	Myna bird population trend significantly reduced			
Outputs	1. Research on the biology of Myna birds	1.1 Research results on indicator native species population documented	1.1.1 Myna bird population decreases and indicator native species population	1.1.1.1 Re-introduction of mynas

			recovers	
Activities	<p>2. Survey of priority sites for myna species population control</p> <p>3. Set-up community central operation point to monitor each activity</p>	<p>2.1 Control program progress report</p> <p>3.1 Community operations monitoring reports</p>	<p>2.1.1 Same as above</p> <p>3.1.1 Community engagement</p>	Control operations disruption due to other factors i.e. funding, control operation is slow compare to population growth, community not helping

Samoa Manumea management

	PROJECT SUMMARY	INDICATORS	MEANS OF VERIFICATION	RISKS / ASSUMPTIONS
Goal	To save the Manumea from extinction			
Outcomes	Numbers of Manumea are sufficient to down-list the status of Manumea from Critically Endangered to Vulnerable	Manumea numbers meet criteria for down-listing according to IUCN Standards		
Outputs	<p>2. Four populations of Manumea are stable or increasing by 2020.</p> <p>3. research and design</p>	<p>1.1 Survey results from quarterly census</p> <p>2.1 Number of birds successfully raised to breeding age in captivity and in wild</p> <p>3.1 Survey results of cat and rat trapping</p>	<p>1.1.1 Survey results</p> <p>2.1.1 Breeding records of birds in captivity and in wild</p> <p>3.1.1 Predator survey results</p>	<p>Risk:</p> <p>1.1.1.1 Land owners are not cooperative and predator control is therefore limited</p> <p>2.1.1.1 Captive birds are unable to breed</p> <p>3.1.1.1 Invasive Predators sometimes</p>

	<p>for developing of captive breeding facility initiated and facilitated by 2018</p> <p>4. Invasive predators (cats and rats) are being successfully controlled over the core range of the Manumea</p> <p>5. Increased community awareness, engagement and capacity building on Manumea conservation.</p> <p>6. Establish Community Conservation Areas for Manumea recovery and protection</p> <p>7. Develop partnership to assist in recovering of the Manumea through provision of funds support or expertise.</p> <p>8. Re-establish and formalise an existing</p>	<p>4.1 The level of awareness and capacity that exist.</p> <p>5.1 Number of agreements with communities signed</p>	<p>4.1.1 Community awareness and capacity survey results documented</p> <p>4.1.2 Number of communities engaged in Manumea recovery efforts</p> <p>5.1.1 Number of Community Conservation Areas established</p>	<p>don't respond to</p> <p>5.1.1.1 Lost of community interest and support overtime</p> <p>Assumption4; Community are supportive of conservation efforts for Manumea</p> <p>Assumption5: Assumption: There are enough birds can be caught to establish a captive population</p>
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	<p>Threatened Bird Recovery Group to advice on the implementation of Manumea conservation efforts in Samoa</p>			
<p>Activities</p>	<p>1.1 Census and monitoring of identified key areas for threatened bird populations every 3 months</p> <p>1.2 Nest identification surveys are conducted weekly at known breeding sites</p> <p>1.3 Landowners are engaged and educated in species and habitat recovery programs</p> <p>2. 1 Captive breeding facility design is finalized and approved by 2018 according to best-practice</p> <p>3.1 Intensive cat trapping in known breeding areas</p> <p>3.2 Rodent bait stations maintained across the known range of Manumea.</p> <p>4.2 Work with communities to establish community</p>			

	<p>conservation areas in Manumea range.</p> <p>4.3 Training and awareness for MRNE staff and local communities on Manumea conservation and survey techniques,</p> <p>4.4 Review Manumea Recovery Plan in 2016</p>			
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Solomon Islands

Solomon Islands: National Invasive Species Strategic Action Plan

Target :(Solomon Islands' revised NBSAPs 2016)

By 2020, invasive alien species and pathways in Solomon Islands have been identified and, measures are in place to control potential entry of new invasive species. Developed and adopted an implementation plan to control or eradicate current invasive species that are threatening food security, trade and biodiversity including human health.

Strategic Goal: To ensure biodiversity of the Solomon Islands is protected from introduced and modified species through legislation, monitoring, research and awareness.

Themes	Objectives	Priority Activities/Actions	Timeframe	Partner	Targeted Donor	Cost
1. National Coordination and collaboration	To improve coordination and collaboration at national level for effective management of invasive species through strengthening of responsible authorities (public and private sectors).	Establish a national invasive species committee and to develop a National Invasive Species Strategic Plan.	2016 - 2017	MAL, MFMR, MoF, MoF	SIG, GEF 6	USD 20 k
		Strengthen coordination & collaboration (intra-island biosecurity) between responsible authorities.				USD 50 k
		Work closely with SPREP	2016- 2020			USD 10k

		(PIILN), SPC, and other regional organisations to strengthen invasive species planning and management in the country.				
		Protocols governing the importation and distribution of all organisms reviewed and strengthened.	2016-2017			USD 10k
		Rapid-response plans and procedures developed overtime and implemented to deal with new incursions of invasive species and prevent them from becoming established in the country.	2016-2018			USD 50k

2. Capacity Building	To strengthen appropriate border control legislations (e.g. Quarantine) to reduce threats from new invasive species and genetically modified organisms being introduced into the country.	Improve capacity to Enforce Biosecurity Act 2013 and other relevant legislation to improve protection against introduction of invasive species and negative impacts.	2016-2018			USD 30K
		Supporting and strengthening border control through training and improved facilities.	2017-2020			USD 100 K
3. Research and Monitoring		Monitoring programme are designed and implemented to identify pathways and monitor the arrival of new invasive species at ports of entry (e.g. airports, sea ports).	2017- 2020			USD 20 K
		Undertake studies and continue to monitor potential entry of marine invasive species especially within ports, marinas and locations where logs are loaded onto ships	2017 -2020			USD 50 K
		Undertake research on introduced and native invasive species under	2018 - 2020			USD 50 K

		changing conditions such as waste and climate change.				
		Undertake research on the intra specific effects of invasive species on their native counterparts such as the effect of cane toad on indigenous frogs; the Common Myna, <i>Acridotheres tristis</i> and the European House Sparrow, <i>Passer domesticus</i> on native birds.	2017- 2020			USD 50 K
		Develop research and study on economic, social, health and environment impacts of IAS.	2017-2020			USD 50 K
4. Education and Awareness		Develop Education and awareness programme (tools, kits) for schools and communities	2017- 2020			USD 30 K
		raise awareness on the impacts of invasive species on biodiversity, economy, human health and cultural values.				USD 20 K
5. Establishment of baseline data	Develop and implement national invasive species management strategy to manage established invasive	Review available information on invasive species and their impacts in the Solomon Islands; identify priority threats, species and actions	2017 - 2020			USD 50 K

	species within the country.	to manage them which will be implemented during the next five years.				
		IAS national database to be developed and update baseline information on the status and distribution of IAS and a programme to detecting range change & emerging impacts.	2016-2020			USD 35 K
6. Management and Eradication of IAS.		Document & promote locally known biological control for IAS, e.g. GAS from red ants, Makira millipede, earth flatworm(Platymus Manokwarii)	2017-2020			USD 30 K
		Support programs for Management and restoration of target species especially GAS, CRB, CB	2017-2020			USD 70 K
		Use introduced Bio-control agents to manage and eradicate invasive species using appropriate best practices.	2017-2020			USD 20 K

Solomon Islands: project logical framework

	Project Summary	Indicators	Means of Verification	Risks/Assumptions
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<p>Goal</p>	<p>To protect biodiversity, enhance food security and reduce negative economic impacts caused by invasive species in the Solomon Islands.</p> <p><i>(About 70% of GAS and CRB are contained and eradicated from affected site size of 22-30km²(within Honiara & surrounding)).</i></p>	<p>-Ecosystem health restored, -Recovery of affected food crops (e.g coconuts, slippery cabbage, and cassava) -Negative economic effects of commercial crops (e.g copra & cocoa) avoided or reduced (60%).</p>	<p>-Comparison on the health of previously affected ecosystem and the restored ecosystem. - comparison on the scale of previously affected food crops and the recovered food crops - Comparison on the Number of previously affect plants and the rehabilitated plants.</p>	<p>-</p>
<p>Outcomes</p>	<p>Biodiversity protected (better management), food crops secured and negative economic impacts/effects on commercial crops reduced through holistic and integrated management approach.</p> <p>(A multi-stakeholder eradication and management programme in place to effectively manage GAS and CRB).</p>	<p>-Better protection of biodiversity from invasive species -Healthy food crops due to eradication of invasive species. -Commercial crops are healthy from invasive species effects.</p>	<p>-Status of Biodiversity in the SOE assessment/report documented. - Market produce are healthy and abundant. -Local and National economy earn maximum profits from sale of products.</p>	<p>-Other impacts on biodiversity, foods crops and causes of negative economic impacts needs to be identified or are under control.</p>
<p>Outputs</p>	<p>1.0. Collaborative work plan on management and eradication of invasive species developed.</p> <p>2.1 Coordination mechanism between national government, provincial gov't and other stakeholders is in place and effective.</p> <p>2.2 Engagement of shipowners and</p>	<p>-Work plan for management and eradication of invasive species is in place. -Agreement and MoUs in place for stakeholder's cooperation and support.</p>	<p>- Records and reports on strategic activities done for invasive eradication in a timely manner. -Obtain record on agreements and MoUs signed by National, Provincial government and other stakeholders. - Quarantine inspection</p>	<p>-Management is necessary for better management of IS in the country(A) -Risks of need for political stability, other priorities and agenda etc.</p>

	<p>business industries to prevent spread of invasive species to Provinces.</p> <p>3.0 Capacity to implement ISPM 3 is developed and in place (within the country).</p> <p>4.0 All nine (9) Province (responsible authorities) develop emergency responds plans for incursions of invasive species.</p> <p>5.0 Border control and monitoring mechanism developed.</p> <p>6.0 The facilities for biosecurity border control are provided and improved.</p> <p>7.0 Pathways of the invasive species has been identified and plan for mitigation established.</p> <p>8.0 Study and regular monitoring of seaports in all provinces.</p> <p>9.0 Study done on introduced and native invasive species in relation to climate change and waste.</p> <p>10.0 Inter-specific effects between</p>	<p>-Ship inspection and awareness programme in place -Training on ISPM 3 undertaken.</p> <p>-Emergency respond plan are in place and mock exercises done for all nine Provinces. -Border control mechanism in place</p> <p>-Improved facilities in place.</p> <p>-List of pathways developed and mitigation plan in place.</p> <p>-Reports produced on the status of the seaport marine environment. -Report produced on the status of introduced and native invasive species in relation to CC & waste.</p>	<p>certificate and awareness reports submitted.</p> <p>- Reports on meeting -ISPM 3 is in place.</p> <p>-Responsible respond effectively to incursion and possible invasive emergencies. -Presence of biosecurity officers stationed in major port of entries for monitoring. - Availability of Scan machines, fumigation equipment, Bio-control agents, and surveillance boats. - Pathways identified and monitored.</p> <p>-Seaport marine environment is free of invasive and reported. -Records and knowledge on the status of Introduced and native invasive species improved.</p>	<p>-Inspection process might delay business & shipping schedules.</p> <p>-</p> <p>-Scattered and isolation of Islands (time & resources).</p> <p>-</p> <p>-Maintenance issues and costs for replacements.</p> <p>-All sources of entry is monitored and remains under control (assumption) & risks of illegal entry.</p> <p>-Limited funding to do study.</p> <p>Climate change and waste issues might divert the focus of invasive species issue.</p>
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	<p>Invasive species and target species documented.</p> <p>11.0 Environmental, social, economic, health and cultural impacts of Invasive species study produced for better decision making at the national level.</p> <p>12. Invasive species Educational Toolkit developed for Schools.</p> <p>13. Invasive Species National Awareness program has been developed.</p> <p>14. National Invasive Species Database developed and Managed.</p> <p>15. Maps of invasive species affected areas identified and developed.</p> <p>16. Establish locally known Bio-control agents.</p> <p>17. Programs for Restoration and Management of impacted targeted species have been developed.</p>	<p>-Documentation of the inter specific effects between invasive and target species.</p> <p>-Reports on environment, social, economic, health and cultural impacts is produced(used for SOE)</p> <p>-Brochures, posters, pamphlets and stickers available for schools.</p> <p>-Radio talk back show and programmes done.</p> <p>-National invasive species(IS) database in place</p> <p>-GIS maps produced on the distribution of IS.</p> <p>-List of locally known bio-control agents. generated(awareness & promoted)</p>	<p>-Records & work done to address interspecific effects between IS and Target species.</p> <p>-Decisions (using guideline developed) made in consideration of environment, social, economic & cultural impacts.</p> <p>-Invasive knowledge amongst students and schools improved using these materials.</p> <p>-Do survey on the awareness of invasive at the national level.</p> <p>-Availability of invasive species lists etc.</p> <p>-Maps are available for planning and on eradication activities.</p> <p>-Invasive species eradicated using bio-control agents.</p> <p>-Reports on the effective restoration of the target invasive species.</p>	<p>-Interspecific effects is a priority(assumption)</p> <p>-Political influences can be a risk to decision making.</p> <p>-Duplication of school curricula and programmes(risks)</p> <p>-Passive attitudes of the public on certain issues.</p> <p>-</p> <p>-</p> <p>-Risks of side unknown effects and impacts on the use of bio-control.</p> <p>-</p>
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	18. Introduced bio-control agents are certified and approved to be used for managing and eradication of IS	-Restoration and management of impacted target species is in place. - List of Certified Introduced bio-control agents is in place.	-Introduced bio-control agents is effectiveness reported.	-
Activities (National Coordination and Collaboration)	1. Establish a national invasive species committee and develop a National Invasive Species Strategic Action Plan through collaborative networking. 2.1 Regular meetings of purpose task of technical committee with outcomes. 2.2 Inspection of ships and other marine vessels at main loading and landing ports of the nine provinces. 3. Protocols governing the importation and distribution of biological control agents has been produced, disseminated and verified for effective advocacy. 4. Rapid-response plans and procedures developed overtime and implemented to deal with new incursions of invasive species and prevented from establishment.	1. IS committee and NISSAP is in place 2.1 Minutes and Conclusions of Meetings made available 2.2 Inspection certificates issued by Quarantine office. 3. Protocols governing the importation and distribution of biological control agents in place. 4. Rapid-Response Plan in place.	1-Committee is in place and NISSAP is implemented. 2.1- Meeting tasks and purposes fulfilled. 2.2- Records of certificates issued. 3. Report on processes in place and followed. 4- Refresher/mocking Exercise on Emergency Responds Plan.	-Limited monitoring and reporting on the implementation. -Process in regular meetings and workload. -Shipping and business schedules and time issues -Urgency & nature of certain invasive issues could be a factor. -Might be a confusion to other disaster emergency exercises.
Capacity Building	5. Improve capacity to Enforce Biosecurity Act 2013 and other relevant legislation to improve protection against	5. Training done and enforcement of Biosecurity Act.	5. Number of Trainings done and Biosecurity Act 2013 effectively	-Staffing capacity could be an issue.

	<p>introduction of invasive species and negative impacts.</p> <p>6. Training workshops done to support and strengthen border control with improve standard facilities in place.</p>	<p>6. Training workshops conducted to support border control.</p>	<p>implemented.</p> <p>6. Biosecurity Officers effectively monitored and controlled.</p>	<p>-Assume that other factors are also under control.</p>
Research and Monitoring	<p>7. Identify pathways and monitor the arrival of new invasive species at ports of entry (e.g. airports, sea ports).</p> <p>8. Undertake studies and continue to monitor potential entry of marine invasive species especially within ports, marinas and locations where logs are loaded onto ships</p> <p>9. Undertake research on introduced and native invasive species under changing conditions such as waste and climate change.</p> <p>10. Undertake research on the inter specific effects of invasive species on their native counterparts such as the effect of cane toad on indigenous frogs; the Common Myna, <i>Acridotheres tristis</i> and the European House Sparrow, <i>Passer domesticus</i> on native birds.</p> <p>11. Develop research and study on economic, social & health and environment impacts of IAS with intend of informing control and eradication, and policy directions.</p>	<p>7. IS pathway are identified and monitoring program in place.</p> <p>8. Reports and Monitoring program for IS entry at sea ports in place.</p> <p>9. Reports on Introduced and native invasive species in place.</p> <p>10. Reports on inter specific effects of IS on Native counterparts in place.</p> <p>11. EIA report on IAS is in place.</p>	<p>7. IS pathways are under control.</p> <p>8. Records of IS point of entry at sea ports in place and work done.</p> <p>9. Records of Introduced and Native IS</p> <p>10. Records of inter specific effects of IS on Native counter parts.</p> <p>11. Reports is in place to inform decision making in terms of the various impacts & effects.</p>	<p>-Lack or limited collaborations.</p> <p>-Limited capacity .</p> <p>-Cross cutting issues.</p> <p>-Delay process in undertaking researches.</p> <p>-This could be part of the EIA process (assumption).</p>
Education and Awareness	<p>12. Develop education and awareness programme (tool kits) for schools and communities.</p>	<p>12. Materials for Posters, brochures, pamphlets and Stickers produced.</p>	<p>12. Schools and communities are using the tool kits to improve knowledge.</p>	<p>-Assume that this can be part of the school curriculum(<i>Risks: Repetition</i>)</p>

	13. Raise awareness on the impacts of invasive species on biodiversity, economy, human health and cultural values etc.	13. Radio live broadcast done at SIBC.	13. Radio talk done & populace heard and informed on IAS.	-Coverage limitation and not accessible to radio.
Establishment of Baseline data	14. IAS national database to be developed and update baseline information on the status and distribution of IAS.	14. IAS National Database is in place.	14. Records of IAS ID, Biology, and Invasive status easily identified.	-Database requirement changes overtime.
	15. IAS mapping for all Islands(Provinces	15. GIS Maps produced showing the distribution of IAS.	15. Spatial Records of IAS distribution in maps and easily followed.	-Mapping exercise expensive (shortage of man power).
Management and Eradication of IAS .	16.Document & promote locally known biological control for IAS, e.g. GAS from red ants, Makira millipede, earth flatworm(<i>Platymus Manokwarii</i>) 17. Support programmes for the management and restoration of target species, especially GAS, CRB & Cocoa borer etc. 18. Introduced bio-control agents to manage and eradicate invasive species using appropriate best practices.	16. Report on locally known bio-control agents for IAS in place. 17. Restoration program for IAS in place. 18. List of introduced bio-control agents produced.	16. Records of locally known bio-control agents. 17. Target species eradicated & restored. 18. Records of introduced bio-control agents and used effectively.	-Risks of unverified information & its side effects. -Capacity and finances might be an issue. -Unknown side effects might be available.

Tonga

	Project description	Measurable indicators / targets	Sources of verification	Assumptions and risks
Goal	Enhance management of Invasive Aliens species on biodiversity, economies, livelihood and human health.	Tonga's NBSAP, NISSAP and Biosecurity Bill approved by the Cabinet.	External experts review the Tonga NBSAP, NISSAP and Biosecurity Bill.(NISSAP is a live part of NBSAP) in line of the CBD and WTO SPS Agreement Biosecurity services in compliance with IPPC ISPMs.	Funds available from International or regional organisations. Climate Change Change of political system
Immediate objective (purpose)	Invasive species management is improved for a healthier communities and their environment.	IAS management program included in the Corporate Planning of PMO-Prime Minister Office, MEIDECC – Ministry of Meteorology, Environment, Information, Disaster Management, Energy, Climate Change and Communication, MOI-Ministry of Infrastructure, MOE-Ministry of Education & MAFFF-Ministry of Agriculture, Food,Forestry, Fisheries.	Tonga NBSAP, NISSAP and Biosecurity Bill reviewed by an Independent agencies.(Biosecurity was in revise version)	Local governments Ministries include budget for IAS management program. Lack of cross sectorial communications and coordination is a risk Unforeseen financial commitments and staff turnover are risks
Expected results (outputs)	Negative impact of invasive species on biodiversity is widely understood and included in the legal framework and government policies. Biosecurity Bill reviewed and enacted by 2018	Increased numbers of endangered species (flora and fauna) restored - eradication National Invasive species information tools in place. Biosecurity and Conservation Acts enacted.	Records of invasive, endangered species and restoration projects updated and evaluate by IUCN and SPREP. National Invasive species information tools implemented and reviewed once a year in collaboration with experts in SPREP or Bird Life International. Biosecurity Services audited in collaboration with NZ MPI-	Border security services improved due to increased skilled staff and appropriate equipment available. Some invasive species may not be manageable due to lack of funding available

			Ministry of Prime Industry or Australia DAF-Documentary Australia Foundation.	
Activities	<p>1) Community trainings on negative impacts posed by IAS and possible management program.</p> <p>2) Incorporate IAS Identification, Impact and management information into the school curriculum.</p> <p>3) Public awareness such as radio and television programs</p> <p>4) Review and harmonise Biosecurity bill with international standards and government policies on IAS management.</p> <p>5) Control population of rats in Late, Kao, Tofua, 'Ata and few small islands in Vava'u and Tongatapu, by 2020</p> <p>6) Border security – increase no. of staff and x-ray scanner is installed.</p> <p>7) Biosecurity – Pest Risk Analysis training completed for border service staff</p> <p>8) Trainings on</p>	<p>1. Number of workshops/surveys and community participants.</p> <p>2. IAS information printed in schools syllabus.</p> <p>3. No. of radio & TV programs conducted and posters printed</p> <p>4. Biosecurity Bill and Conservation Bill approved by Cabinet of Tonga.</p> <p>5. Monitoring records included number of endangered species and ecosystem services improved</p> <p>6. Information system includes Interception Records of prohibited species.</p> <p>7. Increased no. of skilled staff for PRA-Pest Risk Assessment process</p> <p>8. Pest Survey Records and appropriate controls.</p>	<p>1. Publications by SPREP or SPC of workshop reports and surveys records.</p> <p>2. Inclusion of IAS in school curriculum to be reported to the National IAS Council.</p> <p>3. In collaboration with SPREP and SPC public awareness materials are produced.</p> <p>4. New Biosecurity bill and government policies prioritize IAS management.</p> <p>5. Survey data recorded and updated to National and Regional Information system.</p> <p>6. Regional organisations such as SPC, SPREP & IUCN are supporting the activities</p> <p>7. Compliance with IPPC Standards</p> <p>8. Compliance with available measures, referring to the guidance under the CBD and the IPPC supported by Queensland Department of Agriculture and Fisheries, Australia; Landcare Research, New Zealand</p>	<p>Co-financed with the government from the GEF-PAS Invasive Species Project.</p> <p>Technical Expert and resources available from SPREP and SPC.</p> <p>No budget allocated for Invasive Species by Ministry of Education.</p> <p>Lack of commitment from community due to lack of funding.</p> <p>4. Legal work is time consuming.</p> <p>5. High cost of transport and bad weather can delay work.</p> <p>6. Equipment required is installed</p> <p>7. The current relevant Legislations are updated.</p> <p>8. The current Pesticide Legislation needs to be reviewed.</p>

	integrated approach on IAS control using biological control agent and pesticide/herbicide, for Environment officers, Forestry officers and Quarantine officers			
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Vanuatu

	PROJECT SUMMARY	INDICATORS	MEANS OF VERIFICATION	RISKS / ASSUMPTIONS
Goal	Enhance the protection of biodiversity by managing Invasive species in selected sites. (Lake Letes, Luganville and Port Vila harbour , ELMA and Aneityum) as well as strengthening border control throughout Vanuatu.	.		
Outcomes	<p>1 - The infestation of invasive species in selected sites is reduced by at least 60%</p> <p>2 – Vanuatu is free from new arrivals of invasive species as a result of effective border control compliance measures.</p>	.	<p>1.1. Decreased coverage of merremia on forests 1.2. Recolonising of forest by planted trees</p> <p>2.1. Report of invasive species survey 2.2. Decentralization of Biosecurity regulations 2.3. Presence of biosecurity officers and agents throughout Vanuatu</p>	<p>Land dispute by communities Natural disaster (Cyclone, bush fire)</p> <p>Risk: Invasive species introduction through uncleared vessels and aircrafts</p> <p>Assumption: Efficient reporting system of all incoming vessels and</p>

				<p>aircrafts on the islands</p> <p>Risks: Political instability and Biosecurity restructuring</p> <p>Assumption: Strong Biosecurity legal framework.</p>
<p>Outputs</p>	<ol style="list-style-type: none"> 1. Merremia infestation is managed by establishing agro-forestry plots in lake Letes and ELMA 2. Merremia is eradicated at Aneityum by 2019 3. Establishment of a sustainable management system for Crown of Thorns starfish in Port Vila and Luganville Harbour. 4. Establish a user friendly information system for 	<ol style="list-style-type: none"> 1.1. Number of agro-forestry plots established 1.2. Number of Hectares planted with new seedlings 2.1. Number of native and high valued trees planted 3.1. Number /quantity of COT Starfish removed from the selected sites 3.2. Establishment of a mini coral farm (mariculture) 	<ol style="list-style-type: none"> 1.1.1. Activity report released 1.1.2. Availability of before and after photos of the management sites. 2.1.1 Activity report released 3.1.1. Report on the number of COT in census 3.2.1. Availability of coral farms 4.1.1. Marine invasive species material released or available 	<p>Risk: Land disputes Assumption: Clear customary land ownership and boundary</p> <p>Risk: Lack of active participation by community members Assumption: Existing community is already actively involved in commercial farming</p> <p>Risk: Lack of human resource Assumption: Diving communities already involved in removing COT Risk: Presence of</p>

	<p>Marine invasive species by 2018.</p> <p>5. Establishment of a sustainable LFA treatment procedure</p> <p>6. Cost Benefit Analysis conducted on selected invasive species</p> <p>7. Biosecurity border control security strengthened</p>	<p>COT management & Mariculture training</p> <p>4.1. Number of staff and organisation accessing and using the Information System</p> <p>5.1. LFA treatment management</p> <p>6.1. Cost Benefit Analysis</p> <p>7.1. Establishment of border control facilities at all Ports of Entry</p>	<p>5.1.1 LFA management plan</p> <p>6.1.1. Report of Cost Benefit Analysis</p> <p>7.1.1. Active Border control operations</p>	<p>predators (sharks) Assumption: COT presence limited to shallow water</p> <p>Risk: Database stolen or burnt Assumption: Database kept in well secure premises</p> <p>Risk: Long rainy periods Assumption: There will still be 1 or 2 sunny days Risk: Shortage of Treatment chemicals Assumption: Procurement plan will prevent shortage of chemicals</p>
<p>Activities</p>	<p>1. Merremia control & eradication</p> <p>1.1 Awareness/ and Training</p> <p>1.2 Survey</p> <p>1.3 Merremia eradication and management model</p> <p>1.4 Fencing of targeted plots in</p>	<p>Number of awareness raising events and trainings conducted</p> <p>Number of surveys conducted</p> <p>Number of hectares</p>	<p>Posters and pamphlets available</p> <p>Survey report available</p> <p>Model design and protocol documented</p>	

	<p>the reserve areas</p> <p>1.5 Integrated management practices</p> <p>1.6 Farming of sweet potato</p> <p>1.7 Planting of native and high value trees</p> <p>1.8 Clearing of merremia in clear forest and planting of trees</p> <p>1.9 Injection of herbicides in merremia vines</p> <p>1.10 Encourage natural regeneration of indigenous tree species</p> <p>1.11 Improve invasive species database through data entry</p> <p>1.12 Inter villages/reserve border security</p> <p>2. Little fire ant eradication at Lake Letes.</p> <p>2.1 Awareness /Training</p> <p>2.2 Survey</p> <p>2.3 Baseline data collection on the infestation of LFA in the area</p> <p>2.4 First application of LFA baits (granules and paste) in the infested area</p> <p>2.5 Ongoing LFA baits application every 6 weeks</p> <p>2.6 Monitoring of efficiency</p>	<p>fenced</p> <p>Number of gardens established within the fenced area</p> <p>Number of high value native trees planted</p> <p>Number of hectares cleared from merremia.</p> <p>% of regeneration of indigenous species</p> <p>Quality of IS data base improved</p> <p>Number of community leaders appointed and trained as Biosecurity Agents</p> <p>Number of reports submitted</p> <p>Number of awareness and training conducted.</p> <p>Number of training participants recorded</p> <p>Percentage of LFA infestation coverage</p>	<p>Targeted fenced plot available</p> <p>Record of number of planted trees available</p> <p>Site map of the management area available.</p> <p>Site map of the regenerated indigenous species available</p> <p>Invasive species database installed and operational</p> <p>Letter of appointment</p> <p>List of the trained Biosecurity agents</p> <p>Training report available</p> <p>Survey report available</p> <p>LFA monitoring report available</p>	
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	<p>of the bait application every 6 weeks</p> <p>2.7 Improve invasive species database through data entry</p> <p>2.8 Inter villages border security</p> <p>3. Baseline data collection for marine invasive species and COT management in Port-Vila and Luganville harbor.</p> <p>3.1 Awareness / training</p> <p>3.2 Survey</p> <p>3.3 Identify marine invasive species</p> <p>3.4 Kill crown of thorn through mixture of lemon and vinegar injection</p> <p>3.5 Remove the crown of thorns with assistance from secondary school (Malapoa college)</p> <p>3.6 Improve invasive species database through data entry</p>	<p>on baits applied</p> <p>Number of other ants species recorded</p> <p>LFA population coverage trend recorded</p> <p>Quality invasive species database improved</p> <p>Number of reports submitted</p> <p>Number of awareness and training conducted</p> <p>Survey report</p> <p>Quantity/number of crown of thorns removed</p> <p>Number of participating students</p>	<p>Invasive species database developed and operational</p> <p>List of approved Biosecurity agents</p> <p>Report of the training and awareness</p> <p>List of marine invasive species</p> <p>Report on COT remove activity</p> <p>Letter of engagement of the college</p> <p>Improved invasive species database operational</p> <p>Record sheet of ballast water discharge by</p>	
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	<p>3.7 Strengthen ballast water management system for international and local vessels</p> <p>3.8 Initiate ballast water management for domestic vessels</p> <p>4 . Vanuatu secured from invasive species</p> <p>4.1 Establish and strengthen Border control facilities and systems at all Ports of Entry</p> <p>4.2 Train Biosecurity staff and communities Biosecurity agents on invasive alien species identification</p> <p>4.3 Establish efficient reporting systems on invasive alien species</p> <p>4.4 Implement Emergency Response Operation of newly introduced invasive species</p> <p>4.5 Detain undeclared imported materials.</p> <p>4.6 Impose spot fines on</p>	<p>Quality invasive species database improved</p> <p>Legal framework on ballast water management available</p> <p>Ballast water management outlined in relevant government authorities policies</p> <p>Presence of Biosecurity facilities at all Ports of Entry</p> <p>Number of trainings conducted</p>	<p>incoming vessels</p> <p>Policy and legal documents</p> <p>Border control operations functional</p> <p>Annual and monthly reports</p> <p>Training report</p> <p>Reporting network document</p> <p>Report on Emergency Response operation</p> <p>Record of undeclared materials</p> <p>Record of spot fines imposed</p>	
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	undeclared imported articles	Number/quantity of undeclared materials detained Number of spot fines imposed		
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