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Third Project Steering Committee Meeting for the WIOSAP Project and First Project Steering Committee meeting for the SAPPHIRE project

25-27 June 2019 Durban, South Africa

THIRD PSC MEETING FOR WIOSAP PROJECT: <u>SESSION Vd</u> - PROJECT PROPOSAL ON RESTORING THE INTEGRATED TERRESTRIAL HABITAT AND SEABIRD COMMUNITY OF ILE AUX AIGRETTE, MAURITIUS.

### UNITED NATIONS ENVIRONMENT PROGRAMME- NAIROBI CONVENTION

#### **WIOSAP FULL PROPOSALS TEMPLATE**

Call title: Implementation of the Strategic Action Programme for the protection of the Western Indian Ocean from land-based sources

and activities (WIO-SAP)

Participating countries: Comoros, Kenya, Madagascar, Mauritius, Mozambique, Seychelles, Somalia, South Africa, Tanzania [and France (not

project beneficiary)]

**Executing organization:** Nairobi Convention Secretariat

**Duration of demo projects:** 2 years

Stage of the call: Full proposal

**Submission dateline:** 5<sup>th</sup> March 2019

**INSTRUCTIONS** 

Organisation Name	Mauritian Wildlife Foundation
Project Title	Restoring the integrated native terrestrial habitat and seabird community of Ile aux Aigrettes, Mauritius.
Address	Grannum Road Vacoas, Mauritius.
Website	www.mauritian-wildlife.org
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#### **Registration Details**

Type of organisation: Registered Charitable Non-Governmental organisation

Country: Republic of Mauritius Registration Number: 2143

Year: 1984

### **Executive Summary:**

The project seeks to advance ecosystems restoration on Ile aux Aigrettes Nature Reserve, a site of national and international biodiversity importance, and the surrounding sea. Recognising that terrestrial conservation and seabird colony re-establishment has benefits for both land and marine ecosystems, the project will conduct focused, seabird friendly, habitat restoration and seabird attraction. The ultimate aim is to encourage the use of Ile aux Aigrettes by seabirds, and promote the synergistic relationship between land and sea that is mediated by seabirds, and to promote knowledge of mutualistic relationship between terrestrial and marine ecosystems, with seabirds being the interface.

#### I. BACKGROUND AND JUSTIFICATION

The Western Indian Ocean (WIO) is a hotspot of biodiversity, both terrestrial and marine (Myers *et al.* 2000). However, the region is experiencing increasing cumulative impacts (Halpern *et al.* 2015). The combination of high biodiversity and increasing threat makes the WIO an important focus for conservation. The social and economic situation of Mauritius has been assessed in the Ecosystems Profile (CEPF 2014). However, more specifically, Grand Port District (in which Ile aux Aigrettes lies) is a coastal region, with low levels of development, although there are some major infrastructure (e.g. airport) and projects in the pipeline (e.g. Smart Cities). The local population is mainly employed in fishing and agriculture, and there are pockets of poverty, and associated social ills.

One of the major threats to islands in the WIO is invasive species. Invasive Alien Species (IAS) are species introduced outside their native range by human action that consequently have negative impacts on the environment (Russell and Blackburn 2017). IAS can have devastating impacts on native biodiversity, such as birds, through direct predation and habitat disturbance. The impacts of IAS are disproportionately higher on islands compared to continents.

Eradicating IAS can have ecosystem wide benefits - a recent study showed eradication of rats on Chagos Archipelago benefitted the terrestrial ecosystem and also enhanced coral reef productivity and functioning by restoring seabird-derived nutrient subsidies from large areas of ocean (Graham *et al.* 2018). Once IAS have been eradicated, species may need to be reintroduced to recover populations that were extirpated and restore ecosystem functioning.

Ile aux Aigrettes is a 26-hectare low coralline island off the south-east coast of Mauritius. It is an Important Bird and Biodiversity Area (IBA) and a Key Biodiversity Area<sup>1</sup> (including nearby small islets and rocks of Bay de Grand Port<sup>2</sup>), and is one of the last remnants of dry coastal forest. As with any remote, oceanic islands, Ile aux Aigrettes has a high proportion of threatened and endemic taxa. The native flora and fauna was almost destroyed on Ile aux Aigrettes through logging and the introduction of exotic plant and animal species. It was declared a Nature Reserve in 1965, and ecological restoration started in 1985 to rehabilitate native biotic communities. An ecological restoration plan (Dulloo *et al.* 1997) continues to be implemented by the Mauritian Wildlife Foundation, with the eradication of invasive mammals and reintroduction of native and analogue species.

Through weeding of introduced species and planting of native species, including rare and critically endangered plants that have been propagated and reintroduced on the island, the native ecosystem is being restored. An intensive native planting occurred from 1998-2003 with ~200,000 plants planted, and the forest is regenerating naturally. Ile aux Aigrettes is now an internationally recognized model of island conservation and a leading ecotourism destination. However, threats to native ecosystems are still posed by invasive alien species, including exotic plants (e.g. Leucaena leucocephala and Flacourtia indica) and animals (e.g. shrews Suncus murinus, tenrec Tenrec ecaudatus, five species of reptiles including the snake Lycodon aulicum, and Giant Land-Snails Achatina spp.).

Habitat restoration has greatly progressed, but the island requires continuous invasive alien plant species control (and where possible eradication). Specialised planting is required to enhance the species diversity, and to support the native species reintroduced on the island, in addition to creating habitat for further reintroductions. Some areas of the island are being restored to contain open habitats that are suitable for seabird reintroduction and attraction (decoys, call playbacks). The benefits of seabirds to the ongoing ecosystem reconstruction of the island (nutrient recycling) and maintenance of marine health around Ile aux Aigrettes and beyond are important for ecosystem functioning, and the long term conservation efforts of threatened terrestrial and marine species.

Ile aux Aigrettes is managed and restored as one ecosystem unit, with endemic/native bird, reptile, plant, seabird and analogue tortoise projects interacting and contributing to the greater objective of the whole ecosystem rehabilitation.

However, people have not been forgotten since ecotourism and education projects are also implemented on the island. We also provide employment to managers, guides, boatmen, watchmen and labourers from the region, helping to reduce unemployment and poverty in the region.

With intensive rehabilitation efforts over the next two years the aim is to restore areas of the island that are suitable for seabirds to return to and/or be released from in the future to increase resilience of the critical coastal ecosystem. The proposed project is in line with Output

<sup>&</sup>lt;sup>1</sup> Key Biodiversity Areas (KBA) are 'sites contributing significantly to the global persistence of biodiversity', in terrestrial, freshwater and marine ecosystems.

<sup>&</sup>lt;sup>2</sup> BirdLife International (2019) Important Bird Areas factsheet: Mauritius South-eastern Islets. Downloaded from <a href="http://www.birdlife.orgon">http://www.birdlife.orgon</a> 28/02/2019

A.1.3: Habitat restoration through invasive species removal of a key degraded critical coastal habitat and seabird reintroductions to increase ecosystem resilience.

This project closely aligns with the aims of the WIOSAP Project, in particular through the sustainable management of critical coastal and marine ecosystems with the support of partnerships at national regional levels. This project addresses Component A and Outputs: A1.3. The project also fits within the framework of the Nairobi Convention for the Protection, Management and Development of the Marine and Coastal Environment of the Western Indian Ocean Region. Additionally, this project will help provide additional social and environmental benefits, including the conservation of endangered species, including birds (Pink Pigeon Nesoenas mayeri, Mauritius Fody Foudia rubra, Mauritius Olive White-eye Zosterops chloronothos), endemic plants (e.g. Ile aux Aigrettes Ebony Diospyros egrettarum, bois de boeuf Polyscias maraisiana), reptiles (Telfair's Skink Leiolopisma telfairi, Guenther's Gecko Phelsuma guentheri); local economic benefits to labourers from Mahebourg and nearby villages employed as weeders; and as a leading example of island conservation, it benefits the Mauritius ecosystem, people and its future generations, tourists and the world at large. In addition to helping the Republic of Mauritius meet national biodiversity targets (e.g. the National Biodiversity and Strategy Action Plan 2017-2025) and fulfilling obligations towards international biodiversity conventions (e.g. Rio Conventions, Aichi Targets, Millennium Development Goals). MWF is also an initiator of the Honolulu Challenge (https://www.iucn.org/theme/species/our-work/invasive-species/honolulu-challenge-invasive-alien-species).

The Mauritian Wildlife Foundation is a local conservation organisation established since 1984. Our projects are conducted in collaboration with the Government of Mauritius, in particular the National Parks and Conservation Service and the Forestry Service. We have a Memorandum of Understanding with the Ministry of Agro-Industry through the National Parks and Conservation Service which covers the various projects that we implement on Mauritius. Projects are long-term and ongoing, and are the subject of quarterly meetings where details of projects are discussed and where necessary, permissions applied for. All components of the proposed project have received previous approval from government (e.g. seabird translocation since 2009) or form part of guidelines for habitat restoration and thus approved (e.g. weeding - RoM 2018).

#### II. PARTNERSHIPS

Mauritian Wildlife Foundation (MWF) – was founded in 1984 and is the sole ecosystems conservation NGO of the Republic of Mauritius. MWF collaborates with the Government of Mauritius on nearly all its projects and is the sole environmental NGO that has entered into a joint Memorandum of Understanding. Ile aux Aigrettes is a Nature Reserve leased to the Mauritian Wildlife Foundation since 1987 for a fifty year period for conservation purposes. The conservation authorities are fully aware of our long-term conservation projects and have been supportive of the ecosystems restoration efforts.

BirdLife International is a global partnership of conservation organisations (NGOs) that strives to conserve birds, their habitats and global biodiversity, working with people towards sustainability in the use of natural resources. MWF is the BirdLife Partner in the Republic of Mauritius since December 2018. BirdLife International has an on-going programme in the WIO to promote the inclusion of seabird data in management decisions (Funded by the German International Climate Initiative 2016-2021). The proposed project will help capitalise on this existing project by implementing on-the-ground action to address a key threats in a critical coastal habitats. BirdLife International will provide technical assistance, and facilitate knowledge exchange and learning in the region.

Partner Name Role in the project Resources partner will provide

1. Mauritian Wildlife Foundation Project lead Implementation of all activities; in-kind support

2. BirdLife International Project support Technical and regional support

Additional support provided through the following partnerships:

- 1. Conservatoire Botanique National de Brest (France) will provide advice on nursery propagation, threatened plant species repatriation and reintroduction.
- 2. Corporate Social Responsibility funding from c.5 *Mauritian companies* annually to assist in the financial cost of habitat restoration.
- 3. The Government of Mauritius for the continuous endorsement of the conservation work undertaken on Ile aux Aigrettes.
- 4. *North of England Zoological Society* supports the Learning with Nature on Ile aux Aigrettes both with funding and expertise in-kind, advising on the tour and reviewing the programme regularly.
- 5. Durrell Wildlife Conservation Trust seconds Dr Nik Cole for supervision of seabird decoys, playback and monitoring of returning seabirds.

#### III. OBJECTIVES

### A. Overall objective

This project will restore coastal forest habitat on Ile aux Aigrettes, specifically 'seabird habitat', and restore terrestrial and near-island marine ecosystem functioning through the attraction of seabirds. The project will enable Mauritians to learn about their natural heritage and the importance of biodiversity conservation, and remain a global leading example of island conservation and restoration.

### B. Immediate/specific objectives

- Continue to reduce threats from invasive alien species through weeding, with invasive species cleared from 7 ha of Ile aux Aigrettes each year of the project
- Restored forest on Ile aux Aigrettes supports a stable or increasing population of animal and plant species: Pink Pigeon *Nesoenas mayeri*, Mauritius Fody *Foudia rubra*, Mauritius Olive White-eye *Zosterops chloronothos*), reptiles (Telfair's Skink *Leiolopisma*

telfairi, Guenther's Gecko *Phelsuma guentheri*) and endemic plants (e.g. Ile aux Aigrettes Ebony *Diospyros egrettarum*, bois de boeuf *Polyscias maraisiana*)

- 0.5 ha of seabird friendly habitat restored in each year of the project
- Apply bio-security measures to prevent the entry/re-entry of unwanted animal and plant species
- Build on existing forest rehabilitation through planting rare native species (2000 native/endemic plants in each year of the project) to restore the habitat and ensure it is able to support populations of native flora and fauna, including through reintroductions
- Income sustained for 6 labourers from Mahebourg and nearby villages employed as weeders during the project
- Trial seabird reintroductions with seabird decoy models (red-tailed tropic birds, white-tailed tropic birds, and sooty terns). Complete the construction and deploy 90 decoys as seabird attractants throughout the project.
- Monitor returning seabirds of 6 species previously translocated to Ile aux Aigrettes
- Facilitate awareness of the site and critical conservation issues though guided visits for over 15,000 visitors from local communities (especially those from south east Mauritius), tourists and students for each year of the project
- Facilitate 1 knowledge exchange and understanding of conservation issues at regional and national level with site visit and workshop with conservation staff, researchers and government officials
- Project supports at least five national and international conventions or targets.

## IV. PROJECT IMPLEMENTATION AND MANAGEMENT PLAN (See definitions in Annex 3)

# A. Expected project results and indicators

- 4000 plants replanted in weeded and non-weeded areas in total
- 14 ha of the island weeded of invasive alien plants
- 1 ha of habitat suitable for returning seabirds created
- 50 seabird decoys maintained and returning populations of seabirds monitored
- 30 Pink Pigeons, 300 Mauritius Fodies and 60 Mauritius Olive White-eyes supported by habitat restoration
- 100 Telfair's Skinks and 250 Guenther's Geckos supported by habitat restoration
- 6 restoration labourers hired during the project period
- 30,000 visitors (including school children) exposed to the ecosystems restoration work on the island
- 6 popular articles written, and TV or radio programmes produced
- 3 Site visit for conservation staff, researchers, partners and government officials

# B. Project activities and work plan

• Continue the weeding of invasive alien species present on the island and apply bio-security measures to prevent the entry of unwanted animal and plant species.

- Create an ecosystem to support populations of plants, landbirds and seabirds, reptiles and insects.
- Support the education of tourists and Mauritian visitors, including Mauritian school children of all ages, south east Mauritius communities and students through a structured visit to the island called 'Learning with Nature'.
- Support government officials to achieve national conservation and strategic goals through a site visit and knowledge exchange workshop
  to also benefit conservation staff and researchers, and relevant partners in conservation
- Please refer to Workplan and Logical Framework

## C. Project Beneficiaries

In line with WIOSAP objectives, the project will have a major emphasis on cross-sectoral, inter-ministerial, integrated approaches to natural resource management, including the use of inclusive, consultative processes that require equity of gender participation. MWF is an equal opportunity employer. The project will involve or reach out to:

- 6 labourers and nursery staff (from local community) will be employed under the project to conduct the habitat restoration and nursery propagation. The majority of the labourers will be ex-sugar cane personnel, under the sugar industry's 'Voluntary Retirement Scheme', or else, persons from vulnerable groups in the region and include at least 2 women.
- Labourers will assist in evaluating habitat quality and the target areas to be weeded.
- More than 30,000 visitors including Mauritians of all ages (including school children and local communities) and tourists will learn about the habitat restoration efforts.
- Government officials through increased awareness of Mauritius' unique biodiversity and conservation challenges
- Conservation staff and researchers, and staff from relevant partner organisations exposed or trained

# D. Implementing agency management of project

Mauritian Wildlife Foundation will use their well-established links and presence in conservation sites, and diverse partnerships to ensure successful implementation of the project.

- Mrs Deborah de Chazal (MWF Executive Director): financial management of the project
- Dr Vikash Tatayah (MWF Conservation Director): Overall field management and link to Conservatoire Botanique de Brest (France)
- Mr Sooraj Dwarika (MWF Restoration Supervisor): supervision of labourers for weeding and planting
- Mr Pascal Mucktoom (MWF Horticulturist): propagation of plants in the nursery
- Dr Nik Cole (MWF/Durrell Islands Restoration Manager): supervision of seabird decoys and monitoring of returning seabirds
- Mr Jean Hugues Gardenne (MWF Fundraising and Communications Manager): reporting and communications
- Mr Danny Thisbe (MWF Ecotours Manager): management of educational and ecotourist visits to Ile aux Aigrettes

- Dr Stephane Buord (Conservatoire Botanique National de Brest International Programme Scientific Director): advice on nursery propagation, repatriation of plants to Mauritius
- Dr Ademola Ajagbe (BirdLife Africa, Regional Director): Regional Coordination of project through BirdLife International and liaison to obtain expert advice when required.
- Mrs Deborah de Chazal and Dr Vikash Tatayah will jointly ensure the overall management of the project and components through a quarterly project meeting with those involved, and monthly reporting from the field. Through the meetings, Mrs de Chazal and Dr Tatayah will ensure that projects components are well coordinated.

### V. PROJECT METHODOLOGY

The Mauritian Wildlife Foundation has pioneered research and design of restoration of Mauritian fauna and flora (Strahm 1993, Jones et al 1999, MWF 1999, Dulloo et al. 2002, Jones 2008, RoM 2018). Techniques developed by the Mauritian Wildlife Foundation have been extended and modified for use in designated and undesignated protected areas on both public and private lands in Mauritius and Rodrigues. The techniques that we use are reviewed annually so as to be in line with the latest research and approaches in practical field conservation (Khadun 2017).

The following methodologies are proposed to remove invasive plants from Ile aux Aigrettes. *Physical:* Small seedlings are removed by weeding with a small tool and by hand. An uprooter is used for larger plants with established roots.

In 2018, we trialled a 'Tree Popper' (<a href="https://www.treepopper.co.za">https://www.treepopper.co.za</a>) which was successful and we plan to expand the use of this tool. *Chemical:* Foliar spot spraying for regrowth of *Leucaena leucocephala* uses Fluroxypyr as 4 % dilution. Spraying is not done early in the morning as the weeds are wet with the morning dew. A map showing the area being treated will be displayed on the island notice board after it had been discussed with all the concerned staff on the island.

Once weeds are removed, the areas are either left for natural native seedling regeneration if there are fruiting trees that will produce seeds to fill the gaps. Otherwise, nursery produced plants are planted in these gaps, based on a planting plan taking into consideration securing Critically Endangered species, or using species with certain specificities (nectar plants to support birds and reptiles, or grasses to support seabirds and reptiles). Nursery techniques will depend on the species but will include collecting and growing from seed; harvesting of seedlings and potting in the nursery; or growing from cuttings.

To reduce the risk of incursion of invasive alien species onto Ile aux Aigrettes, the current protocol will be reviewed, and areas where there are weaknesses will be addressed in an upgraded prototol. Staff will be trained in the implementation of the new protocol.

The Seabird translocation project began in 2009 to help both the local seabird population and Ile aux Aigrettes to fully revive and regenerate (www.mauritian-wildlife.org). We have translocated White-tailed Tropicbird, Red-tailed Tropicbird, Wedge-tailed Shearwater from Round Island, Sooty Tern, Lesser Noddy and Common Noddy from Serpent Island.

Our seabird translocation project aims to re-establish the lost colony of seabirds once found on Ile aux Aigrettes. Reasons for the seabird disappearances on Ile aux Aigrettes in the past are likely due to native habitat degradation, disturbance, past poaching practices of desirable Seabird species, and the impact of introduced predators such as cats and rats.

For the translocations, each year we have collected young nestlings from Round Island and Serpent Island. We have translocated them into nest boxes on Ile aux Aigrettes and hand-fed them until the birds fledged. The surviving seabirds should return to Ile aux Aigrettes and eventually form pairs, begin breeding and build up healthy and self-sustainable populations on the island. In parallel, we have been restoring areas in and around the seabird translocation sites by removing invasive alien species (*Leucaena leucucephala* and *Flacourtia indica* mainly), replanting native coastal species and in particular *Vetivera arguta*, a tussock grass that provides shelter to seabirds. We are also trialling decoys and call play back to attract seabirds. The plastic decoys will be hand painted to resemble the seabirds and will be placed on the ground in the areas restored for seabirds. Seabirds will be attracted to ground and breed to a greater extent with call playbacks aired in parallel. The project has received support through BirdLife International.

Since 1998, the Mauritian Wildlife Foundation runs an ecotourism programme on Ile aux Aigrettes, probably the only genuine ecotourism initiative in the Republic of Mauritius (Fennell 1999), and received the Global Vision Award from Travel Leisure in 2015, and favourable reviews on Trip Advisor (https://www.tripadvisor.com/Attraction\_Review-g293816-d477982-Reviews-Ile\_aux\_Aigrettes\_Nature\_Reserve-Mauritius.html). We have also been running an education programme called 'Learning with Nature' on Ile aux Aigrettes since 2009. The programme introduces students to the conservation work being carried out in the country and support curriculum subjects that they study. The Learning with Nature tour follows a trail where students learn about the flora and fauna as well as the conservation process, in line with the school syllabi. The ecotourism and education programme on Ile aux Aigrettes receives support and advice from Chester Zoo (UK).

#### VI. SUSTAINABILITY AND REPLICABILITY

The Mauritian Wildlife Foundation has been founded in 1984, but our projects go back to the 1970's. Our longest projects are over four decades and on-going. We preach and practice long term engagement on conservation projects. The weeding effort will be maintained beyond the project funding through corporate social responsibility support and assistance from Conservatoire Botanique National de Brest (France). The seabird monitoring will continue through other funding sources or through staff based on the island on other projects. The ecotourism project has been running continuously since 1998 and is expanding at an average of 5% in recent years, this generates a surplus to support projects where funding is difficult to obtain. The education programme receives support from Chester Zoo and is additionally supported by corporate responsibility programmes. MWF is also intending to re-launch its supporter's club in mid-2019, which will perpetuate and reinforce our education programme in addition to providing the opportunity for a volunteer weeding programme.

Ile aux Aigrettes is a reference in island restoration worldwide and the potential for replication has been recognised in several publications e.g weeding (Khadun 2017, RoM 2018), bird conservation (Jones 2008), education (Esson et al. 2010), analogue tortoise reintroduction (Tatayah et al. 2018), island management (COI-FFEM 2018). Ile aux Aigrettes has been a training ground for possibly a few thousand Mauritian and expatriate conservationists, who are now in key positions in Mauritius, the region and globally, and are replicating the experience. Ile aux Aigrettes will continue to be a training ground for future generations of conservationists and the projects have immense power of replication, as they have had in the past.

### VII. PROJECT MONITORING AND EVALUATION

Monitoring and Evaluation measures will be inbuilt into the project to ensure timely delivery. There will be monthly reports and meetings for the main components and quarterly project meetings with all involved to maintain communication across the project, to check in on progress and any issues. Should any problems arise, corrective actions will be promptly taken. Efforts will be directed to pre-emptive actions to ensure activities are focussed and feasible, that they occur as planned, and that they remain directed towards stated objectives.

Monitoring of specific components will occur, including equity assessments of participation in community or management groups; and ecological monitoring – particularly of seabird populations during each year of the project.

## Full References – available upon request

#### VIII. BUDGET

A total of US\$69,791 is requested from WIO-SAP. This project comes with a total co-financing contribution of \$154,376 from: Private Sector: Corporate Social Responsibility; Conservatoire Botanique National de Brest (France); Durrell Conservation Wildlife Trust (Durrell); North of England Zoological Society (Chester Zoo); and Mauritian Wildlife Foundation.

						Amount
					co-	requested from
Category	subcategory	quantity	unit	total	financing	WIO-SAP
Personnel	Oversight and Management	24	1,521.66	36,520	22,429	14,091
	Weeding	24	1,853.17	44,476		44,476
	Seabird Attraction	24	125	3,000	3,000	
	Educational Visits	24	2,404.75	57,714	57,714	
Equipment	Weeding	1	3,858	3,858	2,826	1,032
	Seabird Attraction	1	10,357	10,357	8,393	1,964
Operating Costs	Weeding	24	112.5	2,700		2,700

	Seabird Attraction	24	26.8	643	643	
	Workshop	1	1,071	1,071		1,071
	Educational Visits	24	1,428.58	34,286	34,286	
Travel	Weeding	24	257.13	6,171	1,714	4,457
	Seabird Attraction	24	21.42	514	514	
	Educational Visits	24	952.37	22,857	22,857	
TOTAL				224,167	154,376	69,791

Annex 1: Workplan

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Task	Responsible	1	2	3	4	5	6	7	8 9	0	1	2	1	2	3	4	5 (	5 7	8	9	0	1	2

**Overall objective:** This project will restore coastal forest habitat on Ile aux Aigrettes, specifically 'seabird habitat', and restore terrestrial and near-island marine ecosystem functioning through the attraction of seabirds. The project will enable Mauritians to learn about their natural heritage and the importance of biodiversity conservation, and remain a global leading example of island conservation and restoration.

Outcome 1.0	Weeding of invasive alien species present of Foundation)	n the i	islaı	nd	and	d se	eab	ird	are	ea c	rea	tio	n (]	Res	pon	sib	le:	Ma	uri	itia	n V	Vilo	llif	e
Output 1.1	Clear 14 ha of Ile aux Aigrettes of invasive	plants	S																					
Activity 1.1.1	Designate areas to be weeded for the year	X												X										
Activity 1.1.2	Purchase materials for weeding	X					X						X					X						
Activity 1.1.3	Recruit, train and supervise team to conduct weeding		X	X	X	X	X	X	X	X	X	$\mathbf{X}$	X	X	XX	X	X	X	X	X	X	X	X	X
Output 1.2	1 ha of habitat suitable for returning seabi	rds cr	eate	ed																				
Activity 1.2.1	Designate suitable areas for returning seabirds to be created	X												X										
Activity 1.2.2	Purchase materials for restoring seabird	X											X											

	areas												ĺ	ĺ	ĺ									
	Recruit, train and supervise team to conduct																							
Activity 1.2.3	seabird area creation		X												X									
Outcome 2.0	Bio-security measures to prevent the entry Wildlife Foundation)	of unv	van	ited	l aı	nim	al a	and	d p	lan	t sp	eci	ies.	(R	esp	on	sib	ole:	M	aur	itia	an		
Output 2.1	Review and apply new bio-security protoco	ols agai	ins	t in	vas	sive	ali	ien	sp	eci	es													
Activity 2.1.1	Review current bio-security protocols against invasive alien species		X	X	X	X																		
Activity 2.1.2	Train staff and apply new biosecurity protocols against invasive alien species						X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	XX	X
Outcome 3.0	Planting of native species and reconstitutio (Responsible: Mauritian Wildlife Foundation	on)																						
	Planting 4000 native plants on Ile aux Aigr	ettes i	n n	ewl	ly '	wee	de	d a	rea	s a	nd	veş	geta	atio	on g	gap	os,	and	l se	ab	ird	frie	endl	y
Output 3.1	area	ı																						
Activity 3.1	Collect seeds and seedlings for sowing or potting in the Ile aux Aigrettes nursery		X	X	X	X	X	X	X	X	X	X	X	X	X									
Activity 3.2	Plant nursery grown plants in weeded areas and designated seabird-friendly areas							X	X	X	X									X	X	X	X	
Outcome 4.0	Seabird decoys as seabird attractants deplo	yed aı	nd 1	mo	nit	ore	<b>d</b> (	Res	spo	nsi	ble	: M	Iau	rit	ian	W	ild	life	e Fo	oun	da	tion	1)	•
Output 4.1	Seabird decoys deployed to attract seabird	s onto	Ile	au	x A	igr	ett	es																
Activity 4.1.1	50 seabird decoys refurbished or purchased	X	X																					
Activity 4.1.2	90 seabird decoys deployed in seabird friendly areas	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	ХУ	X
Outcome 5.0	'Learning with Nature': support education children of all ages and students through a Foundation)																_						ol	1

	More than 30,000 visitors – including Mau	ritian a	adu	ılts	an	d c	hil	dre	en a	nd	to	uri	sts	vis	it t	he	isla	and	an	d l	ear	n a	bov	ıt	
Output 5.1	the ecosystems restoration efforts																								
	Train guides to be able to include further																								
	details on ecosystems restoration, especially																								
Activity 5.1.1	on seabirds	X	X	X																					
					•		•	**		•	•		**	**	•	•	•				<b>T.</b>				
	Conduct upgraded tours for Mauritians and	**	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X	X
Activity 5.1.2	foreign visitors	X																X	X						
																								$\perp$	
	Exposure for external and internal staff, st	udents	, re	esea	arc	her	'S, ]	par	tne	ers	an	d g	ove	rnı	me	nt (	offi	icia	ls (	Re	spo	nsi	ble:	:	
Outcome 6.0	Mauritian Wildlife Foundation)																								
Output 6.1	Exposure to external project partners																								
	Workshop and site visit with government																								
	officials and project partners (e.g. private																								
Activity 6.1.1	sector, visiting foreign supporters)												X												
Output 6.2	<b>Exposure to external project partners</b>																								
	Site visit and or exchanges with																								
Activity 6.2.1	conservation staff, students and researchers	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	$\mathbf{X}$	X	X
Outcome 7.0	Regional coordination (Responsible: BirdL	ife Afı	rica	<b>1</b> )																					
Output 7.1	Regional coordination of project																								
_	Skype or written report between BirdLife																								٦
	Africa Secretariat and MWF to update on																								
Activity 7.1.1	project progress			X			X			X			X			X			X			X			X

## **Annex 2: Logical Framework**

**Project title:** Restoring the integrated native terrestrial habitat and seabird communities of Ile aux Aigrettes, Mauritius.

**Project overall objective:** This project will restore coastal forest habitat on Ile aux Aigrettes, specifically 'seabird habitat', and restore terrestrial and near-island marine ecosystem functioning through the attraction of seabirds. The project will enable Mauritians to learn about their natural heritage and the importance of biodiversity conservation, and remain a global leading example of island conservation and restoration.

Project Results	Outputs	Activities	Costs /output (US\$)
Outcome 1.0: Weeding of invasive alien species present on the island and seabird area creation	O.1.1 Clear 14 Ha of Ile aux Aigrettes of invasive plants	A.1.1.1 Designate areas to be weeded for the year A.1.1.2 Purchase materials for weeding A.1.1.3 Recruit, train and supervise team to conduct weeding	52,522
	O.1.2 1 ha of habitat suitable for returning seabirds created	A 1.2.1 Designate suitable areas for returning seabirds to be created  A 1.2.2 Purchase materials for restoring seabird areas  A 1.2.3 Recruit, train and supervise team to conduct seabird area creation	3,850
Outcome 2.0: Biosecurity measures to prevent the entry of unwanted animal and plant species.	O.2.1 Review and apply new bio-security protocols against invasive alien species	A 2.1.1 Review current bio-security protocols against invasive alien species  A 2.1.2 Train staff and apply new biosecurity protocols against invasive alien species	1,629
Outcome 3.0: Planting of native species and reconstitution of the pristine environment suitable for native	O.3.1 Planting 4000 native plants on Ile aux Aigrettes in newly weeded areas and vegetation gaps, and	A.3.1.1 Collect seeds and seedlings for sowing or potting in the Ile aux Aigrettes nursery  A.3.1.2 Plant nursery grown plants in weeded areas and designated seabird-friendly areas	12,590

fauna reintroduction.	seabird friendly area		
Outcome 4.0: Seabird decoys as seabird attractants deployed and monitored.	O.4.1 Seabird decoys deployed to attract seabirds onto Ile aux Aigrettes	A.4.1.1 50 seabird decoys refurbished or purchased A.4.1.2 50 seabird decoys deployed in seabird friendly areas	16,333
Outcome 5.0: 'Learning with Nature': support education of tourists and Mauritian and visitors, including Mauritian school children of all ages and students through a structured visit to the island.	O.5.1 More than 30,000 visitors – including Mauritian adults and children and tourists visit the island and learn about the ecosystems restoration efforts	A.5.1.1 Train guides to be able to include further details on ecosystems restoration, especially on seabirds A.5.1.2 Conduct upgraded tours for Mauritians and foreign visitors	127,914
Outcome 6.0: Exposure for external and internal staff, students, researchers, partners and government	O.6.1 Exposure to external project partners	A.6.1.1 Workshop and site visit with government officials and project partners (e.g. private sector, visiting foreign supporters)	1,886
officials	O.6.2 Exposure to external project partners	A.6.2.1 Site visit and or exchanges with conservation staff, students and researchers	1,629
Outcome 7.0: Regional coordination	O.7.1 Regional coordination of project	A.7.1.1 Skype or written report between BirdLife Africa Secretariat and MWF to update on project progress	5,814

## **Annex 3: Project Monitoring Plan**

**Project Title:** Restoring the integrated native terrestrial habitat and seabird communities of Ile aux Aigrettes, Mauritius.

**Project overall objective:** This project will restore coastal forest habitat on Ile aux Aigrettes, specifically 'seabird habitat', and restore terrestrial and near-island marine ecosystem functioning through the attraction of seabirds. The project will enable Mauritians to learn about their natural heritage and the importance of biodiversity conservation, and remain a global leading example of island conservation and restoration.

<b>Project Results</b>	Indicator	Target/baseline	Method
Outcome 1.0 Outcome 1.0: Weeding of invasive alien species present on the island and seabird area creation	IND.1.1 Area (Hectare) of Ile aux Aigrettes weeded, IND.1.2 Area of new seabird friendly area created	Target:  14 ha re-weeded (Size of Ile aux Aigrettes 26 ha); 1 ha new seabird friendly habitat created  Baseline: 10 ha past weeded plots; 0.1 ha seabird friendly habitat from previous restoration	Labourers from the local community hired, trained and supervised to conduct the weeding of 14 ha of Ile aux Aigrettes. The labourers will also plant selected species to create 1 ha of seabird friendly habitat.
Outcome 2.0: Biosecurity measures to prevent the entry of unwanted animal and plant species.	IND.2.1. New biosecurity protocol document produced IND.2.2. New protocol applied so that incursions are reduced.	Target: New biosecurity protocol document produced and applied  Baseline: Existing biosecurity protocol	Review of existing protocols to prevent entry of invasive alien species and implementation of an improved protocol. Staff receive training as required.

Outcome 3.0: Planting of native species and reconstitution of the pristine environment suitable for native fauna reintroduction.	IND.3.1:4000 native and endemic plants grown in the Ile aux Aigrettes nursery are planted in newly weeded areas	Target: 4000 plants grown in the Ile aux Aigrettes nursery under the project and planted on the island.  Baseline: 3000 plants grown in the Ile aux Aigrettes nursery under other funding sources grown and planted on the island.	A few thousand seeds, seedlings and cuttings of native and endemic species collected and grown in the nursery on Ile aux Aigrettes. These will then be planted in areas that have been weeded, or in vegetation gaps, and appropriate species are grown in areas designated as seabird attraction sites.
Outcome 4.0: Seabird decoys as seabird attractants deployed and monitored.	IND.4.1 90 seabird decoys painted and deployed in the 'seabird friendly habitat' and attracting seabirds	Target: 90 decoys painted and placed in suitable seabird friendly habitat to attract seabirds.  Baseline: 90 unpainted decoys available in storage.	Existing decoys are painted. These decoys are deployed in seabird friendly area to attract individuals returning to the island that were previously translocated as chicks, or decoys attract other birds flying over the island. Seabird friendly vegetation encourages birds to nest.
Outcome 5.0: 'Learning with Nature': support education of tourists and Mauritian and visitors, including Mauritian school children of all ages and students through a structured visit to the island.	IND.5.1 30 000 visitors exposed to the project in the 2 years of the project.	Target: 30 000 visitors exposed to the project, in particular the seabird attraction.  Baseline: Ile aux Aigrettes receives 16 000 visitors currently, but few are exposed to the seabird project.	Trained MWF guides expose students, Mauritians visitors and tourists to the island and to the aspects of the WIOSAP project.
Outcome 6.0: Exposure for external and internal staff, students, researchers, partners	IND.6.1. Workshops and site visit with government	Target: 1 Workshop and site visit with government officials and project partners (e.g.	Workshop and site visits for government officials and project partners (e.g. private sector, visiting foreign supporters) are organised so that there is exposure about the restoration of ecosystems of Ile aux Aigrettes.

and government officials	officials and project partners (e.g. private sector, visiting foreign supporters) IND. 6.2. Site visits and or exchanges with conservation staff, students and researchers	private sector, visiting foreign supporters) and 3 site visits and or exchanges with conservation staff, students and researchers  Baseline: 5 Site visits and or exchanges with conservation staff, students and researchers	Opportunities will be explored for site visits and or exchanges with conservation staff, students and researchers, so that they also understand the restoration if the island, integration with seabird conservation and the WIOSAP project.
Outcome 7.0: Regional coordination	IND.7.1.Regional coordination meetings and reports	Target: 8 contact meetings or reports with BirdLife Africa Secretariat regarding the project  Baseline: No contact meetings or reports with BirdLife Africa Secretariat in relation to WIOSAP project	Skype calls are organised with the BirdLife Africa Secretariat staff to discuss the advancement of the project. Reports are also sent periodically. When BirdLife Secretariat or partners visit Mauritius, they are shown the project and if opportunities arise, the project will be presented at BirdLife meetings. BirdLife Africa Secretariat will act as the link between MWF and WIOSAP.

Annex 4: Budget (Total budget for the Output applied for MUST NEVER exceed the ceiling given in the background document)

	Category	Quantity	Unit Cost		WIOSAP	Co-financing
	Cutegory	Quantity	(US\$)	(US\$)	Support	Commining
1.	Personnel	Project Coordinator: 25%: 24 months	429	10,286	10,286	
		Project Director: 24 Days	250	6,000	,	6,000
		BirdLife Regional Coordination: 20 Days	250	5,000		5,000
		Ecotour Reservations Officer: 200 Days	57	11,429		11,429
		Purchasing Officer: 18 Days	40	720	720	
		Accounting for Project: 18 Days	57	1,029	1,029	
		Human Resource Manager: 18 Days	114	2,057	2,057	
		6 labourers: 23 months	1,419	32,647	32,647	
		1 weeding supervisor: 50%: 23 months	229	5,257	5,257	
		1 nursery coordinator: 50%: 23 months	286	6,571	6,571	
		1 Conservation Biologist: 105 days	29	3,000		3,000
		Educationalist: 4 days	143	571		571
		Ecotour personel for visits: 8,000 students	7	57,143		57,143
2.	Equipment	4 Tree Poppers	343	1371	689	682
		Nursery Equipment: overall cost	2143	2143		2143
		6 sets of Equipment for Weeding	29	343	343	
		1 Decoy playback	2000	2000	1000	1000
		90 Decoy seabirds	71	6428		6428
		6 Camera Traps with battery & memory card	321	1929	964	965
3.	Operating costs	Labourer working equipment: 6 sets	71	857	857	
		Weeding consumables: 23 months	43	986	986	
		Plant nursery consumables: 4,000 plants	0.714	857	857	
		Paint for decoys: unit 1	386	386		386
		Consumables seabirds: 18 months	14	257		257
		Workshop: 25 participants	43	1071	1071	
		Education & food pack: 8,000 students	4	34,286		34,286
4.	<b>Contract Services</b>					
5.	Travel	Jeep Travel: 24 months	157	3,771	1,714	2,057

	Boat Travel: 24 months	121	2,914	2,743	171
	Education travel costs: 8,000 students	2.86	22,857		22,857

**Annex 4.1: Budget justification** 

	Category	Justification
1.	Personnel	Project Coordinator: 25%: 24 months to manage the project; Project Director: 24 Days for planning, oversight, liason; BirdLife Regional Coordination: 20 Days, regional coordination of the project and liaison for expert advice; Ecotour Reservations Officer: 200 Days to manage the student visits; Purchasing Officer: 18 Days to source and obtain purchases for the project; Accounting for Project: 18 Days for payment of purchases, salaries and financial reporting; Human Resource Manager: 18 Days for recruitment, contracts, issues for legal matters, issues with staff; 6 labourers: 23 months for weeding, work in the nursery and planting; 1 weeding supervisor: 50%: 23 months to oversee the labourers; 1 nursery coordinator: 50%: 23 months to oversee the plant nursery operations and staff working; 1 Conservation Biologist: 105 days to deploy and monitor the decoys and call back for seabirds; Educationist: 4 days for training for guides for the project objectives to deliver to visitors; Ecotour personnel for visits: 8,000 students for guide costs.
2.	Equipment	4 Tree Poppers for weeding: Nursery Equipment- mist bench, irrigation, tools for propagation; 6 sets of Equipment for Weeding for labourers e.g. machetes, crowbars, hoes, pickaxes: 1 Decoy playback to attract seabirds; 90 Decoy seabirds to paint and attract seabirds; 6 Camera Traps with battery & memory card to record any movement of seabirds in the area:
3.	Operating costs	Labourer working equipment: 6 sets, gloves, raincoats, boots; Weeding consumables: 23 months, weedicides; Plant nursery consumables: seed trays, potting bags, compost; Paint for decoys which come plain to make them resemble the local seabirds: Consumables seabirds: woven baskets or wood to resemble 'burrows' to encourage birds to nest; Workshop: 25 participants to communicate about the project; Education & food pack for visiting 8,000 students, some come from poor backgrounds (food pack) and a book is given to reinforce the visit.
4.	Contract Services	
5.	Travel	Jeep Travel used for collection of plants for the project, purchase of fuel and equipment for the project, transport to meetings for project personnel and for project coordinator and director to visit the site; Boat for travel off and on the island for labourers and other staff working on the project; Education travel costs: 8,000 students to cover coach costs from their school to the island and return, boat travel to access the island.