

Information Sheet on Ramsar Wetlands (RIS) – 2009-2012 version

Available for download from http://www.ramsar.org/ris/key_ris_index.htm.

Categories approved by Recommendation 4.7 (1990), as amended by Resolution VIII.13 of the 8th Conference of the Contracting Parties (2002) and Resolutions IX.1 Annex B, IX.6, IX.21 and IX. 22 of the 9th Conference of the Contracting Parties (2005).

Notes for compilers:

1. The RIS should be completed in accordance with the attached *Explanatory Notes and Guidelines for completing the Information Sheet on Ramsar Wetlands*. Compilers are strongly advised to read this guidance before filling in the RIS.
2. Further information and guidance in support of Ramsar site designations are provided in the *Strategic Framework and guidelines for the future development of the List of Wetlands of International Importance* (Ramsar Wise Use Handbook 14, 3rd edition). A 4th edition of the Handbook is in preparation and will be available in 2009.
3. Once completed, the RIS (and accompanying map(s)) should be submitted to the Ramsar Secretariat. Compilers should provide an electronic (MS Word) copy of the RIS and, where possible, digital copies of all maps.

1. Name and address of the compiler of this form:

Mr Anoop Khurun, Deputy Conservator of Forests,
Forestry Service , Botanical Garden Street ,
Curepipe(email: pkhurun@mail.gov.mu) and Mr
Seewajee Pandoo, Senior Technical Officer(Wildlife),
National Parks And Conservation Service, Reduit (Email: seepandoo@mail.gov.mu)

FOR OFFICE USE ONLY.

DD MM YY

--	--	--

Designation date

--	--	--	--	--	--

Site Reference Number

2. Date this sheet was completed/updated:

09.09.2011

3. Country:

Republic of Mauritius

4. Name of the Ramsar site:

The precise name of the designated site in one of the three official languages (English, French or Spanish) of the Convention. Alternative names, including in local language(s), should be given in parentheses after the precise name.

Pointe d'Esny Wetland

5. Designation of new Ramsar site or update of existing site:

This RIS is for (tick one box only):

- a) Designation of a new Ramsar site or
b) Updated information on an existing Ramsar site

6. For RIS updates only, changes to the site since its designation or earlier update:

a) Site boundary and area

The Ramsar site boundary and site area are unchanged:

or

If the site boundary has changed:

- i) the boundary has been delineated more accurately ; or
- ii) the boundary has been extended ; or
- iii) the boundary has been restricted**

and/or

If the site area has changed:

- i) the area has been measured more accurately ; or
- ii) the area has been extended ; or
- iii) the area has been reduced**

**** Important note:** If the boundary and/or area of the designated site is being restricted/reduced, the Contracting Party should have followed the procedures established by the Conference of the Parties in the Annex to COP9 Resolution IX.6 and provided a report in line with paragraph 28 of that Annex, prior to the submission of an updated RIS.

b) Describe briefly any major changes to the ecological character of the Ramsar site, including in the application of the Criteria, since the previous RIS for the site:

7. Map of site:

Refer to Annex III of the *Explanatory Note and Guidelines*, for detailed guidance on provision of suitable maps, including digital maps.

a) A map of the site, with clearly delineated boundaries, is included as:

- i) a hard copy (required for inclusion of site in the Ramsar List): ;
- ii) an electronic format (e.g. a JPEG or ArcView image) ;
- iii) a GIS file providing geo-referenced site boundary vectors and attribute tables .

b) Describe briefly the type of boundary delineation applied:

The boundary is same on the three sides of the site and is also delimited by a road in front of the site e.g. the boundary is the same as an existing protected area (nature reserve, national park, etc.), or follows a catchment boundary, or follows a geopolitical boundary such as a local government jurisdiction, follows physical boundaries such as roads, follows the shoreline of a waterbody, etc.

8. Geographical coordinates (latitude/longitude, in degrees and minutes):

Provide the coordinates of the approximate centre of the site and/or the limits of the site. If the site is composed of more than one separate area, provide coordinates for each of these areas.

20° 25' 36'' S 57° 43' 11'' E

9. General location:

Include in which part of the country and which large administrative region(s) the site lies and the location of the nearest large town.

South East of Mauritius-Grand Port Savanne District Council area

10. Elevation: (in metres: average and/or maximum & minimum)

Sea level (0- 0.5 m)

11. Area: (in hectares)

21.5 Ha

12. General overview of the site:

Provide a short paragraph giving a summary description of the principal ecological characteristics and importance of the wetland.

The Pointe d'Esny wetland is one of the largest remaining wetlands of Mauritius, and is one of the few situated in the South-East of the island, and a rare example of a large wetland in the heart of a main village (Mahebourg). The site is characterized by a sub-tropical mangrove forest containing *Rhizophora mucronata* and reportedly, the rarer *Bruguiera gymnorrhiza*, mud flats and a sub-mangrove belt of pan-tropical coastal plants. This site is the habitat for some threatened plants (eg *Zornia revaughaniana*, recently rediscovered), vagrants and has great potential for bird and plant reintroduction. It provides recreation to the local population and the site is used for recreational fishing and bait collection. The wetland is thought to serve important local flood abatement functions.

However, due to the high value of coastal lands, there are intense pressures to convert the wetland for various ecologically unsustainable economic purposes. The area is also suffering from adverse anthropogenic activities. The rate of conversion of the sub-mangrove areas has accelerated exponentially over the past decade, being converted to illegal settlements, tourism development, social amenities (walks, football grounds, bus stops, road development etc), and development pressures are unabated.

13. Ramsar Criteria:

Tick the box under each Criterion applied to the designation of the Ramsar site. See Annex II of the *Explanatory Notes and Guidelines* for the Criteria and guidelines for their application (adopted by Resolution VII.11). All Criteria which apply should be ticked.

1 • 2 • 3 • 4 • 5 • 6 • 7 • 8 • 9

14. Justification for the application of each Criterion listed in 13 above:

Provide justification for each Criterion in turn, clearly identifying to which Criterion the justification applies (see Annex II for guidance on acceptable forms of justification).

Criterion 2

English Name	Scientific Name	IUCN Status	CITES Status	CMS	National Status
Herbe Pic fesse , no English name available	<i>Zornia vaughaniana</i>	critically endangered	1		Endemic to Mauritius

Criterion 3

Forms a very rich biodiversity where many faunal and floral species exists. It is among the rare wetlands where one can find both types of mangroves namely *Rhizophora mucronata* and *Bruguiera gymnorrhiza*. The endemic *Zornia vaughaniana*, (IUCN **redlisted as critically endangered**) believed to be locally extinct, has been rediscovered in the wetland edge by the

Mauritian Wildlife Foundation in 2006. Other noteworthy flora and fauna are crustaceans e.g. “*crabe noir, tourlourou rouge, crabe blanc, crabe violoniste, crabe manglier, crabe carcassaye, petite crevette and grosse crevette*”.

Native butterflies eg *Phalanta phalantha* and *Eurema floricola ceres*, thrive within the vegetation adjoining the Pointe d’Esny wetland.

Hence to be in line with the Government Policy to protect and conserve biodiversity rich areas, Pointe d’Esny is among those areas.

15. Biogeography (required when Criteria 1 and/or 3 and /or certain applications of Criterion 2 are applied to the designation):

Name the relevant biogeographic region that includes the Ramsar site, and identify the biogeographic regionalisation system that has been applied.

- a) **biogeographic region:**
- b) Mauritius, Reunion and Rodrigues constitute the Mascarene Islands, and are found some 1000 kms east of Madagascar.
- c) **Savanne** is a district in Mauritius. The capital is Souillac. As of the 2000 census, the district has a population of 66,356 and covers an area of 243 km². The south of Mauritius is one of the most scenic and unspoilt parts of the island. Several sites of attractions are found in the district of Savanne. Mainly the crocodile vanille parc. There is also the famous Gris-Gris.
- d) Most life is found around the mangrove forest. Many aquatic species like crustaceans and fishes inhabit mudflats. The dubiously native “Jonc” (*Typha domingensis*) is commonly found in wetlands containing fresh, brackish and saline water, or along riverbanks and the coast. It grows at several of the back-marshes of Pointe d’Esny.

b) biogeographic regionalisation scheme (include reference citation):

The Mascarenes is part of the Afrotropic ecozone, one of the eight ecozones in the World. The Mascarenes is very rich in endemism and its ecosystems are severely threatened (Olson et al. 2001). This qualifies the Mascarenes as one of the global Hotspots of the World, as part of the ‘Madagascar and Indian Ocean Islands Hotspots’ (Mittermeier 1998). Mauritius is the oldest volcanic island of the Mascarenes and displays the highest endemism for most orders (e.g. 67% endemism to the Mascarenes for higher plant). The islands are home to many endemic plants and animals. Most of the Mascarene flora and fauna is thought to be derived originally from Madagascar and Africa. The islands have never been connected to the mainland, so the flora and fauna of the Mascarenes arrived from over the sea. Prehistoric islands of the Mascarene Plateau, now disappeared under the sea, may have served as 'stepping stones' which allowed species to island-hop from the Seychelles or Madagascar. (Quammen 1996). The Mascarene Islands form a distinct eco-region, known as the **Mascarene forests**. The islands were formerly covered in tropical moist broadleaf forest and harboured a diverse range of forest types. Near the seacoast were coastal wetlands and swamp forests, transitioning to rain forest to windward and lowland dry forest to leeward, palm

savannas, montane deciduous forests, and montane heathlands on the highest peaks of Réunion.

Much of the native Mascarenes' flora and fauna has become endangered or extinct since the human settlement of the islands in the 17th century. Settlers cleared most of the forests for agriculture and grazing, and introduced many exotic species, including pigs, rats, cats, monkeys, and mongooses. Fourteen bird species became extinct; in addition to the Dodo, some of the other extinct species are the Rodrigues Solitaire, a flightless pigeon related to the Dodo, and the Réunion Flightless Ibis.

16. Physical features of the site:

Describe, as appropriate, the geology, geomorphology; origins - natural or artificial; hydrology; soil type; water quality; water depth, water permanence; fluctuations in water level; tidal variations; downstream area; general climate, etc.

The site acts as a filter that filtrates the incoming water and flush out water free from foreign materials. The wetland is also a rich ecosystem where many species of the flora and fauna live in. Furthermore the soil ranges from sandy to silty type and muddy in some places.

17. Physical features of the catchment area:

Describe the surface area, general geology and geomorphological features, general soil types, and climate (including climate type).

The water in the wetland is brackish, being a mixture of tidal sea water and freshwater overflow from inland. The inland catchment area is now mainly sugar cane fields, whose soil type is similar to the nearby sub-mangrove soil. The wetland receives 2500 mm of rainfall annually and is under the influence of the South East Trade Winds.

18. Hydrological values:

Describe the functions and values of the wetland in groundwater recharge, flood control, sediment trapping, shoreline stabilization, etc.

The Pointe d'Esny Wetland is a natural coastal wetland of shallow depth (estimated to be no more than 1m deep) whose water level fluctuates with rainfall and tidal variation. The floor is made up of heavy alluvial silt. Generally, the soil ranges from sandy to silty type and muddy in some places. There are three water inlets through which water feeds into the wetland. The water body is bounded by the sea to which it is connected by a number of passages (most of which have been reduced by coastal developments) and inland by agricultural lands/settlements. Wetlands like that of Pointe D'Esny are what now scientists call living machines. Active in filtering water and taking up excess nutrients out of the water runoff from agricultural lands and built up areas, the Pointe D'Esny wetland ensures the health and vitality of the lagoonal system of Mahebourg and adjoining islets.

19. Wetland Types

a) presence:

Circle or underline the applicable codes for the wetland types of the Ramsar "Classification System for Wetland Type" present in the Ramsar site. Descriptions of each wetland type code are provided in Annex I of the *Explanatory Notes & Guidelines*.

Marine/coastal: A • B • C • D • E • F • G • H • I • J • K • Zk(a)

Inland: L • M • N • O • P • Q • R • Sp • Ss • Tp Ts • U • Va •
 Vt • W • Xf • Xp • Y • Zg• Zk(b)

Human-made: 1 • 2 • 3 • 4 • 5 • 6 • 7 • 8 • 9 • Zk(c)

b) dominance:

List the wetland types identified in a) above in order of their dominance (by area) in the Ramsar site, starting with the wetland type with the largest area.

Intertidal marshes 50%

Intertidal mud, sand or salt flats 25%

Intertidal forested wetlands 25%

20. General ecological features:

Provide further description, as appropriate, of the main habitats, vegetation types, plant and animal communities present in the Ramsar site, and the ecosystem services of the site and the benefits derived from them.

Mudflat, Mangrove forests covers about 25% of the wetland, lagoon, sand dune, ‘barachois’, vegetable plantation, sugarcane plantation are the most prominent ecological features. The main habitats include the water body, mangroves, sub-mangroves, Acrosticum fern areas, grasslands and mudflats. The Pointe d’Esny Wetland support coastal fishes and crustacean, and is a nursery for these aquaquatic species, mangrove stands, as well as supporting migratory and shore birds. Areas of the wetland have been converted to non-agricultural uses as well as market gardens and sugar cane plantations. Mangrove forests covers about 25% of the wetland, lagoon, sand dune, ‘barachois’, vegetable plantation, sugarcane plantation are the most prominent ecological features. The wetland provides a range of direct or indirect uses, which have been evaluated following USDA (1998) between USD 42126 (minimum value) and USD 3 261 915 (median value) annually (Tatayah 2002), based on a conservation area estimate of 35Ha.

Annual estimated value of the Pointe d’Esny wetland.

Wetland Function Valued	Median	Mean	Range	Pointe d’Esny
	Dollars per acre			
<u>MARKETED GOODS</u>				
Fish and shellfish support	702	6132	7-43928	702
Fur-bearing animals	na	137	13-261	Nil
NONMARKETED GOODS				
General-nonusers	32903	83159	115-347548	32903

General-users	623	2512	105-9859	623
Fishing-users	362	6571	95-28845	362
Hunting-users	1031	1019	18-3101	Nil
Recreation-users	244	1139	91-4287	244
ECOLOGICAL FUNCTIONS	2428	32149	1-200994	2428
Amenity and cultural	448	2722	83-9910	448
TOTAL (USD/Acre/Yr)			487 (min)	37710

21. Noteworthy flora:

Provide additional information on particular species and why they are noteworthy (expanding as necessary on information provided in 14, Justification for the application of the Criteria) indicating, e.g., which species/communities are unique, rare, endangered or biogeographically important, etc. *Do not include here taxonomic lists of species present – these may be supplied as supplementary information to the RIS.*

Mangrove: A dense stand of *Rhizophora mucronata*, reaching a few metres in some places and impenetrable. *Bruguiera gymnorrhiza* is present as well but fewer in numbers.

Sub-mangrove species eg *Hibiscus tiliaceus*, *Thespesia populnea*, *Dendrolobium umbellatum*, *Pemphis acidula* and *Suriana maritima*. Some of these species support very rich arboreal snail and a host of insects.

Reeds, *Typha domingensis*, a species believed to be native to Mauritius.

Dense pantropical fern stands of *Acrosticum aureum*

The endemic *Zornia vaughaniana*, (IUCN redlisted as critically endangered) believed to be locally extinct, has been rediscovered in the wetland edge by the Mauritian Wildlife Foundation in 2006. *Rhizophora mucronata* & *Bruguiera gymnorrhiza* were the most common and are the richest ecosystems that are inhabited by crustaceans and fishes.

Sub mangrove species eg *Hibiscus tiliaceus* which is the source of food for birds and butterflies,

22. Noteworthy fauna:

Provide additional information on particular species and why they are noteworthy (expanding as necessary on information provided in 14, Justification for the application of the Criteria) indicating, e.g., which species/communities are unique, rare, endangered or biogeographically important, etc., including count data. *Do not include here taxonomic lists of species present – these may be supplied as supplementary information to the RIS.*

Rich in crustaceans, it is the habitat for many endemic birds, butterfly like the *Phalanta phalanta*, there are many bait fishes and a rare bird (*Fregata minor*) has been observed.

23. Social and cultural values:

a) Describe if the site has any general social and/or cultural values e.g., fisheries production, forestry, religious importance, archaeological sites, social relations with the wetland, etc. Distinguish between historical/archaeological/religious significance and current socio-economic values:

Mainly recreational fishery production, agriculture on sub mangrove areas and managed by the Forestry Service for the non-consumptive use of the mangrove and the ecosystem services it provides.

b) Is the site considered of international importance for holding, in addition to relevant ecological values, examples of significant cultural values, whether material or non-material, linked to its origin, conservation and/or ecological functioning?

If Yes, tick the box and describe this importance under one or more of the following categories:

- i) sites which provide a model of wetland wise use, demonstrating the application of traditional knowledge and methods of management and use that maintain the ecological character of the wetland:
- ii) sites which have exceptional cultural traditions or records of former civilizations that have influenced the ecological character of the wetland:
- iii) sites where the ecological character of the wetland depends on the interaction with local communities or indigenous peoples:
- iv) sites where relevant non-material values such as sacred sites are present and their existence is strongly linked with the maintenance of the ecological character of the wetland:

24. Land tenure/ownership:

a) within the Ramsar site:

Government owned

b) in the surrounding area:

Leased Government land along with private lands

25. Current land (including water) use:

a) within the Ramsar site:

Land partly reclaimed for agriculture purposes.

b) in the surroundings/catchment:

Leased Government land along with private lands

26. Factors (past, present or potential) adversely affecting the site's ecological character, including changes in land (including water) use and development projects:

a) Within the Ramsar site:

Land conversion for agriculture and housing

A boom in the tourism industry will give rise to more hotels in the area.

b) in the surrounding area:

Coastal roads, and agricultural lands, and human settlements affect the site adversely.

27. Conservation measures taken:

a) List national and/or international category and legal status of protected areas, including boundary relationships with the Ramsar site:

In particular, if the site is partly or wholly a World Heritage Site and/or a UNESCO Biosphere Reserve, please give the names of the site under these designations.

b) If appropriate, list the IUCN (1994) protected areas category/ies which apply to the site (tick the box or boxes as appropriate):

Ia ; Ib ; II ; III ; IV ; V ; VI

c) Does an officially approved management plan exist; and is it being implemented?:

No

d) Describe any other current management practices:

None

28. Conservation measures proposed but not yet implemented:

e.g. management plan in preparation; official proposal as a legally protected area, etc.

An outline of a management plan has been proposed by an NGO. However presently the area is under the responsibility of the Forestry Services to protect the area from illegal dumping, backfilling and squatting.

29. Current scientific research and facilities:

e.g., details of current research projects, including biodiversity monitoring; existence of a field research station, etc.

Assessment on the biodiversity of Pointe D'Esny Wetland by R.V.Tataya

Presently a university student is doing her final year dissertation on the water and sediment quality of the site.

30. Current communications, education and public awareness (CEPA) activities related to or benefiting the site:

e.g. visitors' centre, observation hides and nature trails, information booklets, facilities for school visits, etc.

A booking desk which is fully operated and under the charge of the Mauritius Wildlife Foundation (MWF). This structure has been sponsored by the Government of JAPAN to the tune of Rs one million rupees. The main aim of this booking desk is to provide sensitization on conservation of the Mauritian Biodiversity and is also used for selling tickets for visitors for visits at Ile aux Aigrettes.

31. Current recreation and tourism:

State if the wetland is used for recreation/tourism; indicate type(s) and their frequency/intensity.

The site is used mainly by locals for recreational fishing and the booking desk operated by the MWF is more concerned with the sensitization of public in general on biodiversity conservation. A touristic hotel (Le Preskil) is located adjacent to the site and its main activities is recreational .

32. Jurisdiction:

Include territorial, e.g. state/region, and functional/sectoral, e.g. Dept of Agriculture/Dept. of Environment, etc.

Under the jurisdiction of the Forestry Service of the Ministry of Agro Industry and Fisheries

33. Management authority:

Provide the name and address of the local office(s) of the agency(ies) or organisation(s) directly responsible for managing the wetland. Wherever possible provide also the title and/or name of the person or persons in this office with responsibility for the wetland.

Conservator of Forests, Forestry Services, Botanical Gardens Street, Les Casernes, Curepipe,
Mauritius

34. Bibliographical references:

Scientific/technical references only. If biogeographic regionalisation scheme applied (see 15 above), list full reference citation for the scheme.

An assessment of pressures on the Biodiversity of the Pointed'Esny Wetland (Mahebourg)
and proposed for the conservation Management Plan by R.V Tatayah

Please return to: **Ramsar Convention Secretariat, Rue Mauverney 28, CH-1196 Gland, Switzerland**
Telephone: +41 22 999 0170 • Fax: +41 22 999 0169 • e-mail: ramsar@ramsar.org