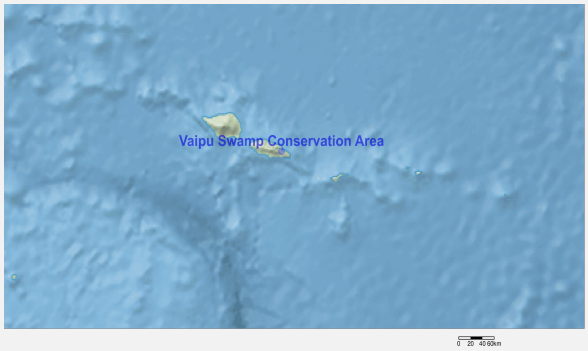
Ramsar Information Sheet

Published on 10 November 2023

Samoa

Vaipu Swamp Conservation Area



Designation date	10 November 2023
Site number	2530
Coordinates	13°57'39"S 171°34'27"W
Area	278,32 ha

Color codes

Fields back-shaded in light blue relate to data and information required only for RIS updates.

Note that some fields concerning aspects of Part 3, the Ecological Character Description of the RIS (tinted in purple), are not expected to be completed as part of a standard RIS, but are included for completeness so as to provide the requested consistency between the RIS and the format of a 'full' Ecological Character Description, as adopted in Resolution X.15 (2008). If a Contracting Party does have information available that is relevant to these fields (for example from a national format Ecological Character Description) it may, if it wishes to, include information in these additional fields.

1 - Summary

Summary

The Vaipu Swamp Forest Conservation Area consists the only remaining forest swamp in Samoa, characterized by its unique wetland ecosystem and the presence of numerous rare and endemic species and some threatened species. Some of the important species include Gymnomyza samoensis (EN), Oreochromis mossambicus (VU), Clintostigma samoense and Sterculia fanaiho. Altogether Criterion 1, 2, and 3 have been applied to designate this Site in the List of Wetland of International Importance (Ramsar Site).

The land of the Site is owned by the Va'a o Fonoti district in the north, but it holds strong historical ties to the Lotofaga district in the south. There are no settlements within the Site but a few can be found along the Richardson Track close to it. Surrounding villages include Lotofaga to the south and Tiavea Uta to the east, and Fagaloa Bay lies to the north. The Site is situated within the Eastern Upolu Catchments Key Biodiversity Area (KBA).

Approximately 90% of the Site's area is forested with native species while some parts of its buffer area have been invaded by non-native plant species and requires restoration. The water quality in the Site meets World Health Organization standards. The water flow for the Vaipu swamp is perennial and according to the Ministry of Natural Resources and Environment Water Resource Division's database, the river flowing through the swamp has maintained an average flow height of between 0.6 m and 0.9 m since 2009.

In addition to its ecological and hydrological significance, the swamp holds some historical value. Adjacent to the swamp are remnants of the ancient village of Vaigafa, and there are also some historical sites nearby at Mauga o Alii which comprises a star mound. The primary threats to the Site include stray cattle grazing, invasive species, hunting, and the potential development of a hydropower plant in the near future. Collaborative efforts the local landowning communities are required to ensure the long-term conservation of the Site.

2 - Data & location

2.1 - Formal data

2.1.1 - Name and address of the compiler of this RIS

Responsible compiler

Institution/agency: Forestry Division, Ministry of Natural Resources and Environment

Postal address:
Level 3, Tui Atua Tupua Tamasese Efi Building
Sogi
P.O Private Bag
Apia, Samoa

National Ramsar Administrative Authority

Institution/agency: Ministry of Natural Resources and Environment

Postal address:
Level 3, Tui Atua Tupua Tamasese Efi Building
Sogi
P.O Private Bag
Apia, Samoa

2.1.2 - Period of collection of data and information used to compile the RIS

From year: 2017

To year: 2023

2.1.3 - Name of the Ramsar Site

Official name (in English, French or Spanish): Vaipu Swamp Conservation Area

2.2 - Site location

2.2.1 - Defining the Site boundaries

b) Digital map/image
<1 file(s) uploaded>

Former maps: 0

Boundaries description

The Vaipu Swamp Conservation Area is located in the east of Upolu. It is in a natural basin of forested swamp covering an area of approximately 280 hectares (690 acres) and ranges in elevation from 260 to 280 m.a.s.l. It lies within the Eastern Upolu Catchments Key Biodiversity Area (KBA) along the upper reaches of the Vaigafa River and 2 kilometres southeast of Le Mafa Pass and 100 meters west of the Afulilo hydroelectric dam run by the Electric Power Corporation (EPC).

The Site is currently under the customary ownership of Va'a o Fonoti district in the North, but has strong historical links to the Lotofaga district in the South. There are no inhabitants within the Site, but few settlements exist along the Richardson Track. Adjacent villages include Lotofaga to the South, Tiavea Uta to the East and Fagaloa Bay to the North.

2.2.2 - General location

a) In which large administrative region does the site lie? Vaa-o-Fonoti

b) What is the nearest town or population centre? Apia

2.2.3 - For wetlands on national boundaries only

a) Does the wetland extend onto the territory of one or more other countries? Yes ○ No ◉

b) Is the site adjacent to another designated Ramsar Site on the territory of another Contracting Party? Yes ○ No ◉

2.2.4 - Area of the Site

Official area, in hectares (ha): 278.318

Area, in hectares (ha) as calculated from GIS boundaries: 278.318

2.2.5 - Biogeography

Biogeographic regions

Regionalisation scheme(s)	Biogeographic region
Freshwater Ecoregions of the World (FEOW)	Ecoregion: SAMOAS, ID: 823

3 - Why is the Site important?

3.1 - Ramsar Criteria and their justification

☑ Criterion 1: Representative, rare or unique natural or near-natural wetland types

Hydrological services provided	The Vaipu Swamp is in the Eastern Upolu Catchments Key Biodiversity Area or KBA along the upper reaches of the Vaigafa River which flows into the Fagatoloa River (also called the Salani river) southwards to Salani village. The Site lies at 260 m.a.s.l. in a poorly drained natural basin and is fed by the Vaigafa River that flows out of the Afulilo dam. The water flow for the swamp is perennial and according to the Ministry of Natural Resources and Environment Water Resource Division's database, the river flowing through the swamp has maintained an average flow height of between 0.6 m and 0.9 m since 2009. The stable water flow helps in maintaining water level in the swamp, especially during dry periods. The water quality of the river (tested in 2017) is within the World Health Organization standards. The Site acts as a natural sponge, storing excess rainwater and reducing the risk of downstream flooding during heavy rains. It helps to purify water by trapping sediments and filtering pollutants, thus enhancing water quality for downstream users. It also regulates water flow in the Salani River.
Other ecosystem services provided	The Site is rich in biodiversity and provides habitat for various plant and animal species. It is an important breeding and feeding ground for critically endangered bird species such as tooth-billed pigeon (Didunculus strigirostris). The Site has the potential to store significant amounts of carbon in its plant biomass and soil, helping to mitigate climate change. It's an area with rich historical values and offer opportunities for ecotourism, birdwatching, agriculture and outdoor recreation that benefits local economies. It holds also cultural and spiritual significance for local communities. Other resources provided by the Site include fisheries and non-timber forest products.

☑ Criterion 2 : Rare species and threatened ecological communities

Optional text box to provide further information	The Site has at least 7 globally threatened taxa: Clinostigma samoense (EN), Gymnomyza samoensis (EN), Oreochromis mossambicus (VU), Terminalia richii (EN), Samoana conica (EN), and Emoia tongana (EN). Tooth-billed Pigeon (Didunculus strigirostris), which is a critically endangered species, has been reportedly observed at the Site too but further verifications are required to ascertain this as a fact.

☑ Criterion 3 : Biological diversity

Justification	The Site comprises a mixture of typical swamp forest species and lowland rain forest species. Areas at higher elevations such as along stream banks in particular, have high plant diversity. At least 44 tree species have been recorded at the Site including various endemic woody trees such as Aglaia samoensis, Clinostigma samoense and Sterculia fanaiho. Inocarpus fagifer and Pandanus turritus are dominant tree species and are native to Samoa. These species are specifically adapted to wet areas with standing water that the Site abundantly provides. The Vaipu Swamp is the largest remaining mixed upland swamp forest in Samoa and this rarity allows specific habitat characteristics to be available at the Site that supports numerous species that are endemic to Samoa, including three snails (Eua expansa, Samoana conica and Succinea putamen) and a fish (Kuhlia rupestris). In addition, there are at least 27 bird species inhabiting the Site, of which 6 are endemic to Samoa. Two flying foxes (Pteropus tonganus and Pteropus samoensis) that are native to Samoa are also found at this Site. See the survey report in Additional Section for the up-to-date taxonomic list of the Site.

3.2 - Plant species whose presence relates to the international importance of the site

Phylum	Scientific name	Criterion 2	Criterion 3	Criterion 4	IUCN Red List	CITES Appendix I	Other status	Justification
Plantae								
TRACHEOPHYTA / MAGNOLIOPSIDA	*Aglaia samoensis*	☐	☑	☐	NT	☐		Endemic to Samoa
TRACHEOPHYTA / LILIOPSIDA	*Clinostigma samoense*	☑	☑	☐	EN	☐		Endemic to Samoa
TRACHEOPHYTA / MAGNOLIOPSIDA	*Inocarpus fagifer*	☐	☑	☐	LC	☐		Native to Samoa. Grows specifically in wetted areas with standing water which is provided by the Site.
TRACHEOPHYTA / LILIOPSIDA	*Pandanus turritus*	☐	☑	☐		☐		Native to Samoa. Grows specifically in wetted areas with standing water which is provided by the Site.
TRACHEOPHYTA / MAGNOLIOPSIDA	*Sterculia fanaiho*	☐	☑	☐	LC	☐		Endemic to Samoa
TRACHEOPHYTA / MAGNOLIOPSIDA	*Terminalia richii*	☑	☐	☐	EN	☐		

3.3 - Animal species whose presence relates to the international importance of the site

Phylum	Scientific name	Species qualifies under criterion				Species contributes under criterion				Pop. Size	Period of pop. Est.	% occurrence 1)	IUCN Red List	CITES Appendix I	CMS Appendix I	Other Status	Justification
		2	4	6	9	3	5	7	8								
Others																	
CHORDATA / REPTILIA	*Emoia tongana*	☐	☐	☐	☐	☑	☐	☐	☐				LC	☐	☐	VU at the National Level	
Fish, Mollusc and Crustacea																	
MOLLUSCA / GASTROPODA	*Eua expansa*	☑	☐	☐	☐	☑	☐	☐	☐				EN	☐	☐	EN at the National Level	Endemic to Samoa
CHORDATA / ACTINOPTERYGII	*Kuhlia rupestris*	☐	☐	☐	☐	☑	☐	☐	☐				LC	☐	☐	VU at the National Level	Endemic to Samoa
CHORDATA / ACTINOPTERYGII	*Oreochromis mossambicus*	☑	☐	☐	☐	☐	☐	☐	☐				VU	☐	☐		
MOLLUSCA / GASTROPODA	*Samoana conica*	☑	☐	☐	☐	☑	☐	☐	☐				EN	☐	☐		Endemic to Samoa
MOLLUSCA / GASTROPODA	*Succinea putamen*	☐	☐	☐	☐	☑	☐	☐	☐					☐	☐		Endemic to Samoa
Birds																	
CHORDATA / AVES	*Aplonis atrifusca*	☐	☐	☐	☐	☑	☐	☐	☐				LC	☐	☐		Endemic to Samoa
CHORDATA / AVES	*Didunculus strigirostris*	☑	☐	☐	☐	☐	☐	☐	☐				CR	☐	☐		
CHORDATA / AVES	*Gymnomyza samoensis*	☑	☐	☐	☐	☐	☐	☐	☐				EN	☐	☐		
CHORDATA / AVES	*Lalage sharpei*	☐	☐	☐	☐	☑	☐	☐	☐				NT	☐	☐		Endemic to Samoa
CHORDATA / AVES	*Pachycephala flavifrons*	☐	☐	☐	☐	☑	☐	☐	☐				LC	☐	☐		Endemic to Samoa
CHORDATA / AVES	*Ptilinopus porphyraceus*	☐	☐	☐	☐	☑	☐	☐	☐				LC	☐	☐		Endemic to Samoa
CHORDATA / AVES	*Rhipidura nebulosa*	☐	☐	☐	☐	☑	☐	☐	☐				LC	☐	☐		Endemic to Samoa

1) Percentage of the total biogeographic population at the site

3.4 - Ecological communities whose presence relates to the international importance of the site

<no data available>

4 - What is the Site like? (Ecological character description)

4.1 - Ecological character

The ecological character of the Vaipu Swamp Forests is influenced by several key components, processes, and services. These factors collectively shape the unique features of the Site:

(A) Ecological Components, Processes, and Services -
(1) Biodiversity: The Vaipu Swamp Forests are characterized by a rich variety of plant and animal species, contributing to a diverse and interconnected ecosystem.
(2) Hydrological Processes: The wetland's hydrology, including water flow and levels, plays a vital role in maintaining the ecosystem's health and supporting its unique flora and fauna.
(3) Vegetation Structure: The specific arrangement of plant species, including various wetland vegetation types, contributes to the overall functioning and ecological value of the Site.
(4) Carbon Storage: The wetland acts as a carbon sink, storing significant amounts of carbon and contributing to climate change mitigation.
(5) Water Purification: The Site's natural processes filter and purify water, enhancing local water quality and benefiting both the ecosystem and nearby communities.
(6) Geology: The geological formation of the Site is related to Salani volcanics, which are relatively old (for Samoa), weathered to a moderate degree and had deeply incised lava flows around 750,000 years old. Immediately to the north of the swamp are older and deeply weathered Fagaloa volcanics formed around 3 million years old.
(7) Climate: The climate type for the Site is typically classified as a tropical rainforest climate or more specifically as a tropical monsoon climate with relatively stable warm to hot temperatures throughout the year. Average temperatures tend to remain consistently high with high levels of humidity, often above 80%, due to the proximity to the ocean and abundant rainfall throughout the year. The combination of warm temperatures and abundant rainfall results in lush green vegetation. The Site is also prone to tropical cyclones, especially during the wet season, which can bring about heavy rains, strong winds,and potential flooding from the Salani River.

(B) Natural Variability -
(1) Hydrological Fluctuations: The water levels and flow patterns in the Vaipu Swamp Forests exhibit natural variations over time, impacting the ecosystem's composition and functioning.
(2) Vegetation Dynamics: The distribution and density of plant species can change in response to factors like water availability, affecting the overall structure of the wetland.

(C) Past and Current Changes -
(1) Human Activity: Historical and ongoing human activities, such as drainage for agriculture or infrastructure development, have altered the hydrology and vegetation of the Site.
(2) Invasive Species: The introduction of non-native plant and animal species has led to changes in species composition and disrupted natural processes in the buffer areas.
(3) Climate Change: Changing precipitation patterns and temperature fluctuations may be influencing the wetland's hydrology and affecting plant and animal populations.

4.2 - What wetland type(s) are in the site?

Inland wetlands

Wetland types (code and name)	Local name	Ranking of extent (1: greatest - 4: least)	Area (ha) of wetland type	Justification of Criterion 1
Fresh water > Marshes on inorganic soils >> Xf: Freshwater, tree-dominated wetlands	Vaipu Swamp Forest	1	278	Rare

4.3 - Biological components

4.3.1 - Plant species

Other noteworthy plant species

Phylum	Scientific name	Position in range / endemism / other
TRACHEOPHYTA/LILIOPSIDA	*Clinostigma warburgii*	Threatened at National Level

Invasive alien plant species

Phylum	Scientific name	Impacts
TRACHEOPHYTA/MAGNOLIOPSIDA	*Clidemia hirta*	Actual (major impacts)
TRACHEOPHYTA/MAGNOLIOPSIDA	*Hyptis capitata*	Actual (minor impacts)
TRACHEOPHYTA/MAGNOLIOPSIDA	*Merremia peltata*	Actual (major impacts)

4.3.2 - Animal species

Other noteworthy animal species

Phylum	Scientific name	Pop. size	Period of pop. est.	% occurrence	Position in range /endemism/other
CHORDATA/MAMMALIA	*Pteropus samoensis*				Native species
CHORDATA/MAMMALIA	*Pteropus tonganus*				Native species

Invasive alien animal species

Phylum	Scientific name	Impacts
CHORDATA/AVES	*Acridotheres fuscus*	Actual (major impacts)
CHORDATA/AVES	*Acridotheres tristis*	Actual (major impacts)
CHORDATA/ACTINOPTERYGII	*Oreochromis niloticus*	Actual (major impacts)
CHORDATA/MAMMALIA	*Rattus exulans*	Actual (major impacts)

4.4 - Physical components

4.4.1 - Climate

Climatic region	Subregion
A: Tropical humid climate	Am: Tropical monsoonal (Short dry season; heavy monsoonal rains in other months)

4.4.2 - Geomorphic setting

Entire river basin ☐
Upper part of river basin ☑
Middle part of river basin ☐
Lower part of river basin ☐
More than one river basin ☐
Not in river basin ☐
Coastal ☐

Please name the river basin or basins. If the site lies in a sub-basin, please also name the larger river basin. For a coastal/marine site, please name the sea or ocean.

Salani river

4.4.3 - Soil

Mineral ☐
Organic ☑
No available information ☐

Are soil types subject to change as a result of changing hydrological conditions (e.g., increased salinity or acidification)? Yes ○ No ◉

Please provide further information on the soil (optional)

The swamp has two kinds of soil: Vaigafa silty lay and loam- a gleysol covering most of the central portion, and Vaiola sandy clay loam.

More recent soil derived from alluvium were found around the edges.

4.4.4 - Water regime

Source of water that maintains character of the site

Presence?	Predominant water source	
Water inputs from precipitation	☑	No change
Water inputs from groundwater	☑	No change

Water destination

Presence?	
To downstream catchment	No change

Stability of water regime

Presence?	
Water levels fluctuating (including tidal)	No change

Please add any comments on the water regime and its determinants (if relevant). Use this box to explain sites with complex hydrology:

The primary source of water for the Vaipu Swamp CA is usually rainfall. There is a distinct wet season with heavy rainfall and a relatively drier season with reduced precipitation throughout the year. The Site experiences dynamic hydrological cycles. Water levels rise during the wet season as they receive inflows from rain, rivers, and groundwater. In the dry season, water levels may recede. The water regime of the swamp is also be influenced by groundwater. In many cases, groundwater may seep into the swamp, maintaining water levels during dry periods. The Site is seasonally inundated.

(ECD) Connectivity of surface waters and of groundwater	The connectivity of surface waters and of groundwater in the Swamp is a complex and vital aspects of the wetland ecosystem. More studies are needed to assess and monitor this critical aspects of the swamp.
(ECD) Stratification and mixing regime	The stratification and mixing regime of the swamp can be influence by various factors. More studies are needed to assess and monitor this critical aspects of the swamp.

4.4.5 - Sediment regime

- [ ] Significant erosion of sediments occurs on the site
- [x] Significant accretion or deposition of sediments occurs on the site
- [ ] Significant transportation of sediments occurs on or through the site
- [ ] Sediment regime is highly variable, either seasonally or inter-annually
- [ ] Sediment regime unknown

4.4.6 - Water pH

- [ ] Acid (pH<5.5)
- [ ] Circumneutral (pH: 5.5-7.4)
- [x] Alkaline (pH>7.4)
- [ ] Unknown

4.4.7 - Water salinity

- [ ] Fresh (<0.5 g/l)
- [ ] Mixohaline (brackish)/Mixosaline (0.5-30 g/l)
- [ ] Euhaline/Eusaline (30-40 g/l)
- [x] Hyperhaline/Hypersaline (>40 g/l)
- [ ] Unknown

4.4.8 - Dissolved or suspended nutrients in water

- [ ] Eutrophic
- [ ] Mesotrophic
- [ ] Oligotrophic
- [ ] Dystrophic
- [x] Unknown

Please provide further information on dissolved or suspended nutrients (optional):

Nitrogen is the only dissolved nutrient that was part of the Vaipu water quality assessment. Therefore, a classification cannot be deduced from this as carbon and phosphorous need to be considered too. The amount of nitrate in the Vaipu swamp was found to be within the WHO standards.

(ECD) Dissolved organic carbon	Unknown
(ECD) Redox potential of water and sediments	Unknown
(ECD) Water conductivity	Conductivity increases as water continues to flow downstream

4.4.9 - Features of the surrounding area which may affect the Site

Please describe whether, and if so how, the landscape and ecological characteristics in the area surrounding the Ramsar Site differ from the site itself: i) broadly similar (●) ii) significantly different ( )

4.5 - Ecosystem services

4.5.1 - Ecosystem services/benefits

Provisioning Services

Ecosystem service	Examples	Importance/Extent/Significance
Food for humans	Sustenance for humans (e.g., fish, molluscs, grains)	Low
Fresh water	Drinking water for humans and/or livestock	High
Fresh water	Water for energy production (hydro-electricity)	High
Wetland non-food products	Fuel wood/fibre	Medium
Wetland non-food products	Timber	Low
Biochemical products	Extraction of material from biota	Medium
Genetic materials	Medicinal products	Medium
Genetic materials	Ornamental species (live and dead)	Low

Regulating Services

Ecosystem service	Examples	Importance/Extent/Significance
Maintenance of hydrological regimes	Groundwater recharge and discharge	High
Biological control of pests and disease	Support of predators of agricultural pests (e.g., birds feeding on locusts)	High
Hazard reduction	Flood control, flood storage	Medium

Cultural Services

Ecosystem service	Examples	Importance/Extent/Significance
Recreation and tourism	Recreational hunting and fishing	High
Recreation and tourism	Picnics, outings, touring	Medium
Recreation and tourism	Nature observation and nature-based tourism	Medium
Spiritual and inspirational	Cultural heritage (historical and archaeological)	High
Spiritual and inspirational	Aesthetic and sense of place values	High
Scientific and educational	Educational activities and opportunities	High
Scientific and educational	Important knowledge systems, importance for research (scientific reference area or site)	High
Scientific and educational	Long-term monitoring site	High
Scientific and educational	Major scientific study site	High
Scientific and educational	Type location for a taxon	High

Supporting Services

Ecosystem service	Examples	Importance/Extent/Significance
Biodiversity	Supports a variety of all life forms including plants, animals and microorganizms, the genes they contain, and the ecosystems of which they form a part	High
Soil formation	Sediment retention	Medium
Soil formation	Accumulation of organic matter	Medium
Nutrient cycling	Storage, recycling, processing and acquisition of nutrients	High
Nutrient cycling	Carbon storage/sequestration	High
Pollination	Support for pollinators	High

Within the site: 10s

Outside the site: 100s

Have studies or assessments been made of the economic valuation of ecosystem services provided by this Ramsar Site? Yes ○ No ◉ Unknown ○

4.5.2 - Social and cultural values

i) the site provides 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) the site has exceptional cultural traditions or records of former civilizations that have influenced the ecological character of the wetland ☐

iii) the ecological character of the wetland depends on its interaction with local communities or indigenous peoples ☐

iv) 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 ☐

<no data available>

4.6 - Ecological processes

<no data available>

5 - How is the Site managed? (Conservation and management)

5.1 - Land tenure and responsibilities (Managers)

5.1.1 - Land tenure/ownership

Other

Category	Within the Ramsar Site	In the surrounding area
Commoners/customary rights	☑	☑

Provide further information on the land tenure / ownership regime (optional):

The Vaipu Swamp CA includes land under the customary ownership of the Va'a o Fonoti political district. Historically however, the Site had strong historical links to Lotofaga district.

5.1.2 - Management authority

Please list the local office / offices of any agency or organization responsible for managing the site:

The management of the area is solely under the local communities of Vaa-o-Fonoti and Lotofaga. The Ministry of Natural Resources and Environment with its partners will be providing support through the provision of conservation projects and technical assistance in managing the area together with the community. All the village mayors of Vaa-o-Fonoti are the responsible managers leading the management of the area.

Provide the name and/or title of the person or people with responsibility for the wetland:

Vaa o Fonoti community

5.2 - Ecological character threats and responses (Management)

5.2.1 - Factors (actual or likely) adversely affecting the Site's ecological character

Biological resource use

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Logging and wood harvesting	Low impact	Low impact	☑	☑

Natural system modifications

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Dams and water management/use	High impact	High impact	☑	☑

Invasive and other problematic species and genes

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Invasive non-native/ alien species	High impact	High impact	☑	☑

Pollution

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Unspecified	High impact	High impact	☐	☑

Climate change and severe weather

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Habitat shifting and alteration	High impact	High impact	☑	☑
Droughts	High impact	High impact	☑	☑

Please describe any other threats (optional):

Contamination from the Afulilo Dam overflow into the Site's water system has impacted water quality and freshwater biodiversity of the Vaipu Swamp Forests.

5.2.2 - Legal conservation status

<no data available>

5.2.3 - IUCN protected areas categories (2008)

Ia Strict Nature Reserve ☐

Ib Wilderness Area: protected area managed mainly for wilderness protection ☑

II National Park: protected area managed mainly for ecosystem protection and recreation ☐

III Natural Monument: protected area managed mainly for conservation of specific natural features ☐

IV Habitat/Species Management Area: protected area managed mainly for conservation through management intervention ☑

V Protected Landscape/Seascape: protected area managed mainly for landscape/seascape conservation and recreation ☐

VI Managed Resource Protected Area: protected area managed mainly for the sustainable use of natural ecosystems ☑

5.2.4 - Key conservation measures

Legal protection

Measures	Status
Legal protection	Proposed

Habitat

Measures	Status
Catchment management initiatives/controls	Partially implemented
Hydrology management/restoration	Partially implemented
Re-vegetation	Proposed
Soil management	Proposed

Species

Measures	Status
Threatened/rare species management programmes	Proposed
Control of invasive alien plants	Proposed
Control of invasive alien animals	Proposed

Human Activities

Measures	Status
Research	Partially implemented
Management of water abstraction/takes	Proposed
Regulation/management of wastes	Proposed
Livestock management/exclusion (excluding fisheries)	Proposed
Fisheries management/regulation	Proposed
Harvest controls/poaching enforcement	Proposed
Regulation/management of recreational activities	Proposed
Communication, education, and participation and awareness activities	Partially implemented

5.2.5 - Management planning

Is there a site-specific management plan for the site? Yes

Has a management effectiveness assessment been undertaken for the site? Yes ○ No ◉

If the site is a formal transboundary site as indicated in section Data and location > Site location, are there shared management planning processes with another Contracting Party? Yes ○ No ◉

5.2.6 - Planning for restoration

Is there a site-specific restoration plan? No, but a plan is being prepared

Further information

Restoration activities are defined in the Site Management Plan as in Section 5.2.5. A Site-specific restoration plan will be considered in its future work.

5.2.7 - Monitoring implemented or proposed

Monitoring	Status
Animal community	Proposed
Birds	Proposed
Water regime monitoring	Implemented
Water quality	Implemented
Soil quality	Proposed
Plant community	Proposed
Plant species	Proposed

Control activities for managing invasive species, illegal activities within the site such as illegal waste disposal, illegal fishing (fish and shrimps) and harvesting of tree species, exploitation of native plant species for medicinal use have been identified to be addressed in the management of the Site.

6 - Additional material

6.1 - Additional reports and documents

6.1.1 - Bibliographical references

https://www.mnre.gov.ws/wp-content/uploads/2017/08/Vaipu-Management-Plan-2023-2032_FINAL_April-2023_ compressed.pdf

6.1.2 - Additional reports and documents

i. taxonomic lists of plant and animal species occurring in the site (see section 4.3)
<no file available>

ii. a detailed Ecological Character Description (ECD) (in a national format)
<no file available>

iii. a description of the site in a national or regional wetland inventory
<no file available>

iv. relevant Article 3.2 reports
<no file available>

v. site management plan
<no file available>

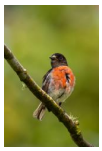
vi. other published literature
<1 file(s) uploaded>

6.1.3 - Photograph(s) of the Site

Please provide at least one photograph of the site:

Merremia peltata impacted the natural vegetation of the Vaipu Swamp (*Elizabeth Kerstin-Yoshida, 27-03-2023*)

Vaipu Swamp Forests Conservation Area (*Elizabeth Kerstin-Yoshida, 18-03-2017*)



Scarlet Robin (Petroica multicolor) (*Chikara Yoshida, 19-04-2023*)

6.1.4 - Designation letter and related data

Designation letter
<1 file(s) uploaded>

Date of Designation: 2023-11-10