

Information Sheet on Ramsar Wetlands

1. Country: Peru **2. Date:** 3 Feb 1992 **3. Ref no:** 6PE002

4. Name and address of compiler:

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5. Name of wetland: Reserva Nacional Pacaya - Samiria.

6. Date of Ramsar designation: 28 August 1986.

7. Geographical coordinates: 5° 15' S, 74° 40' W

8. General location:

Region [admin 1] of Loreto, provinces [admin 2] of Loreto and Requena

9. Area: 2,080,000 ha.

10. Type of wetland:

Tree dominated wetland (including swamp forest/seasonally flooded forests).

Permanent freshwater lakes.

11. Altitude: 125 - 800 masl

12. Overview:

Alluvial landscape with floodplains and terraces in tropical rainforest. Includes a complete network of 85 lakes and a greater number of pools. Dry-land and swamp vegetation. Ecosystems: tropical "aguajal" [formation featuring "aguaje" palm trees *Mauritia flexuosa*. See 23], tropical swampland, Amazonian tropical riparian forest.

13. Physical features:

- Physical geography. Though mainly alluvial plain, there are two distinguishable landscapes: alluvial and limestone (with flat and gently undulating topographies respectively).

- Hydrography. The National Reserve includes - in their entirety - the Ríos Pacaya and Samiria, which flow through it from west to east; the former a tributary, through the left bank, to the Puinahua (Río Ucayali) and the latter is a tributary, through the right bank, to the Río Marañón; both follow a sinuous course, with black water and slow flow, the width varying between 50 and 150 m. They receive numerous tributaries - streams and channels. Their levels fluctuate almost constantly all year round, reaching minima in August to September and maxima in February to April. The Río Samiria has a length of approx. 346 km, and the Pacaya 320 km. There are more than 80 "cochas" or lakes.

- Origin. Natural. The Ríos Pacaya and Samiria are filtration waters with a pH of approximate 6.8.

- Soils. The soils are clayey, of low natural fertility, acidic, with excesses of Fe [iron] and Al [aluminium], typical of Peruvian forest. The predominant soil types are the laterites and alluvials. Acidic clayey soils with alluvial silt and humous are found on the bottom and banks of the hydrographic system.

- Climate. Tropical, humid and rainy. The temperature varies little, with an annual average of 26.3°C; and extremes of 37 and 15°C. The average annual precipitation is 2,965 mm, the less rainy season June to September and the most rainy season December to April.

14. Ecological features:

Pacaya-Samiria N.R. is situated in the Tropical Amazonia biogeographic province (following the internationally

adopted classification system of Udvardy. It includes two catchment basins: Pacaya and Samiria.

This conservation area is characterised by a typical tropical rainforest vegetation and climate. The terrain is predominantly low and seasonally floodable, but there are also swampy and flooded areas; the soils are predominantly of a sedimentary nature.

15. Land tenure/ownership of:

a. Site. The area belongs to the State.

b. Surrounding area. There are rural settlements in the vicinity of the Reserve.

16. Conservation measures taken:

The protection of the area by the State dates back to 1940 with the creation of a Fishing Reserve, following which on 26 February 1972, by Supreme Decree N° 016-82-AG the Pacaya-Samiria National Reserve was established. The administration of the reserve was entrusted to the Loreto Agrarian Region of the Ministry of Agriculture.

Since January 1991 the Secretary of Productive Resources for Loreto Region, administers the Pacaya-Samiria N.R. locally, through a project of the same name, which means there is a set minimum of resources provided for the area: 5 professionals, 2 secretaries, 1 administrator, 30 park wardens and a boat for carrying out patrols.

An integrated development project to assist the Reserve and the surrounding settlements has now been initiated, through international organisations such as WWF-US, WWF Denmark and the Danish Labour Movement, the Nature Conservancy; and FPCN (Fundación Peruana para la Conservación de la Naturaleza). These integrated development activities will be carried out for a period of 10-15 years.

17. Conservation measures proposed but not yet implemented:

- Illegal hunting and fishing of wildlife within the reserve can still not be effectively controlled, to avoid deterioration of the ecosystem, and the same is true for exploitation of other renewable natural resources.

- Facilities\ infrastructure for tourism have not yet been developed.

18. Current land use/ principal human activities in:

a. Site.

- The flow of tourists into the Reserve is increasing.

- Prospecting activities for the extraction of oil.

- Fishing for consumption by the neighbouring human populations.

- Indigenous groups live here: Tupiguarani and Arawak.

b. Surrounding area:

- Fishing for local consumption.

- Illegal hunting of birds, mammals and reptiles.

19. Disturbances/threats, including changes in land use and major development projects:

a. Site.

- There are two plots of land for oil drilling, where in 1991 there had been interest in carrying out exploration through a contract with the Texas Crude Company, but this did not lead to extraction of oil taking place. Any future extraction of oil would have a negative impact on the wetland.

- There are a great number of people present in the forest to hunt, fish and collect eggs of aquatic turtles in a plundering and indiscriminate fashion.

- The transit of boatloads of different sizes from, by day or night, increases the erosion of soils from the bank of

the Río Samiria, mainly destroying the beaches or sandy soils, which are egg laying sites of aquatic turtles.

- The "colpas" or "lamederas", areas where wild animals shelter and breed, have been disturbed, through the disposal of a variety of waste, domestic included.

- The waterside vegetation has been cleared along sizeable stretches of the river, in order to facilitate the arrival of small aircraft (boat planes).

- Fishing - mainly for the "paiche" (*Arapaima gigas*) - and collecting of aquatic turtle eggs, continue throughout the year in the higher part of the Reserve. Fishing for ornamental species also occurs.

b. Surrounding area.

Similar to the above, with an increased level of extraction of renewable natural resources.

20. Hydrological and physical values:

Based on the studies (1988) by the Peruvian Amazon Research Institute, taking as an average the fish biomass of the Río Pacaya (222 kg/ha) and Río Samiria (151 kg/ha), in 1,000,000 ha of water body area there is a total fish biomass of 187,000 TM [metric tonnes], of which 30% is made up by "paiche" (*Arapaima gigas*), and 70% by other species such as "gamitana" (*Colossoma macropomum*), "paco" (*Colossoma brachypomum*), "Sábalo" (*Boycón* spp), "boquichico" (*Psochiodus nigricans*) and others. This has a great value as a food source for the 70,000 people living along the waterside in and around the Reserve.

21. Social and cultural values:

The Reserve comprises territory of three provinces [admin 2] of the Loreto region [admin 1]: Requena, Loreto and Ucayali, including ten districts.

The population inside the reserve and in the area of influence amounts to 100,000 inhabitants, from 20,000 families of various ethnic origin: predominantly cocama and cocamilla indigenous people, *mestizos* [mixed indigenous-white blood], and to a lesser extent, whites.

Activities of production include fishing, hunting and gathering, largely in the Reserve; extraction of forest products, agroindustry, handicrafts and tourism.

The great majority of settlements lack the most basic services of health, education, housing, transport and communication. In terms of cultural values, the reserve contains: Kuelap, Teya and Pomacocha archaeological remains, Saposoa Ruins (Río Sapo); Aguaytia ceramic complex; Anatico and Kamihun archaeological remains (Río Huasaga); Valencia cemetery; and an ancient settlement of indigenous people from the Járabo linguistic family.

22. Noteworthy fauna: list annexed of scientific and common names, including herptiles, birds and mammals. No counts given

23. Noteworthy flora:

The vegetation cover of the Reserve has a very heterogeneous floristic composition, featuring more than 17 vegetation formations, with primary forest and representatives of the Amazonian plain. Amongst the commercial species are the "caoba" *Swietenia macrophylla*, cedar *Cedrela odorata*, "cumula" (Mistecaceae family) and "lagartocasi" *Calophyllum brasiliense*.

In the hydrometamorphic formations known as "aguajales" we can find extensive stands of the "aguaje" palm tree *Mauritia flexuosa*; "huasai", "chonta" or "palmito" *Euterpe* sp. [a small palm]; "ungurahi" *Jessenia batana* and "yarina" *Pitheclphas* sp.

The timber potential is low but the potential for producing fruits from the various palm trees is very high, for use in raw form, or for their industrial value in the case of the oil-bearing ones.

24. Current scientific research and facilities:

There are three biological stations in the reserve, from which research is carried out on aquatic turtles, white lizard, black lizard, manatee, "ronosco", "paiche" [a fish] etc. There has also been a study of birds and insects made by national and international researchers, as well as ecological studies measuring solar energy.

25. Current conservation education:

The "Employment and Natural Resources in Pacaya-Samiria" project, financed by US-AID through the Nature Conservancy and FPCN (Fundación Peruana para la Conservación de la Naturaleza) for a period of four years at a total cost of US\$ 5 million, has the following objectives:

- Raise awareness about the convenience and feasibility of sustainable development practices at the level of the local population.
- Reach an effective level of Reserve direction/management.

26. Current recreation and tourism:

There are no established programmes of recreation and tourism.

27. Management authority:

"National Parks-Peru" National Programme.

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28. Jurisdiction:

Ministry of Agriculture.

29. References: *see original for list of 47 references*

30. Reasons for inclusion:

1a, 2b, 3b.

31. Map of site:

Included.