Information Sheet on Ramsar Wetlands

1. **Date this sheet was completed/updated**: February 1996

2. **Country**: VENEZUELA

3. **Name of wetland**: Laguna de Restinga (Parque Nacional Laguna de la Restinga)

4. **Geographical coordinates**:

10°58'N - 11°06'N
64°01'W - 64°18'W

5. **Altitude**: an average altitude of 40 metres above sea level

6. **Area**: 18,862 hectares (national park)
5,248 hectares (wetlands)

7. **Overview**:

The Parque Nacional Laguna de la Restinga includes a complex system of marine and coastal wetlands of considerable ecological and scenic importance. The flora includes four species of mangroves, xerophytic vegetation, phanerogamous sea beds and halophilic communities. Among the fauna found here are many species of migratory birds as well as important endemic subspecies of ducks, flamingos, sea turtles, shellfish and a wide variety of fish.

8. **Wetland type**:

A, (B), (F), I, (J), L, M

9. **Ramsar criteria**:

10. **Map of site included? Please tick yes -or- no**

11. **Name and address of the compiler of this form**:

Instituto Nacional de Parques (INPARQUES)
Dirección General Sectorial de Parques Nacionales

PROVITA

12. **Justification of the criteria selected under point 9, on previous page**:

This area is of special importance for biodiversity and the ecology of the region owing to the

quality and the uniqueness of the fauna and flora.

In addition, this area is important for species and communities of endemic plants and animals.

13. **General location**:

This area is situated in the central section of the coastal plain of the Isla de Margarita in the state of Nueva Esparta on the continental shelf in the Caribbean Sea, in eastern Venezuela between the piedmonts of the Copey hills to the east, Macanao and Bahía de Mangle to the south and the Enseada La Guardia to the north. It is 1 kilometre from the town of Boca del Río and 8 kilometres from Punta de Piedra.

14. **Physical features**:

This area forms a large mass of mangroves on the inner sea covering more than 100 square kilometres of salt water. There are navigable channels, mangrove islands on which a large number of birds live and the isthmus and barrier beach bathed by ocean waves.

Geology and geomorphology: This is part of the flat coastal lowlands of the Isla de Margarita and is a shallow lagoon separated from the sea by a coastal barrier from the Quaternary (recent Pleistocene).

Hydrology: The hydrologic basins in the area are formed by intermittent and torrential streams. The streams flow only at the time of rains, draining into the lagoon from the northeastern slope of the Macanao hills.

Soils: The soil is an aridsol with an accumulation of clay in the subsurface.

Water depth: The depth of the lagoon ranges from about six to one metres in depth. The borders of the lagoon are the shallowest with not more than 50 centimetres.

Climate: This area is dry and hot. In the Köppen classification, it is a semiarid dry climate (Bshi) with xerophytic vegetation and thorny hills associated with halophytic vegetation on the shore of the lagoon.

Temperature: between 26°C and 30°C
Precipitation: 0 to 300 mm annually
Winds: northeast trade winds
Thermic floor: tropical semiarid
Highest altitude: tropical
Humid province: arid
Relative humidity: between 70 and 75 per cent

15. **Hydrological values**:

The tributaries of the lagoon flow off the eastern slope of the Macanao peninsula into the western shore of the lagoon in a large saline flat where their sediment is deposited. There are

two basic water levels in the lagoon: the area permanently covered by water and the area seasonally covered by the tide which is mostly the salt flats.

16. **Ecological features**:

Most of the park is formed by two large lagoons of which the Laguna de la Restinga (25 square kilometres) is the largest. Its physio-chemical characteristics vary considerably from the opening of the lagoon towards the interior. This influences the distribution of the fauna and flora and can be divided in two provinces: dry humid and tropical thorny bush. The most prevalent vegetation is trees, shrubs and shrub cacti.

The complex of canals and lagoons is separated from the sea by a barrier (*restringa*) dominated by halophytes influenced by the subsoil of sand and seashells. The most representative vegetative species in this area are creeping plants and shrubs such as *algodón de seda* (*Calotropis procera*) and halophytes such as *vidrio* (*Batis maritima*) and *verdolaga* (*Portulaca oleracea*).

The mangroves cover more than 1,058 hectares (one of the largest areas of mangrove in the Lesser Antilles), composed of four species of mangroves. Below the surface of the water, there are beds of phanerogams primarily of the two genera *Thalassia* and *Diplanthera*.

17. **Noteworthy flora**:

Mangroves grow in shallow water and in transitional zones reached by the influence of the tides. They help to retain sediment and nutrients and prevent coastal erosion. There are four species of mangrove: *mangle rojo* (*Rhizophora mangle*), exposed to open water and occupying 45.9 per cent of the lagoon; *mangle negro* (*Avicenia germinans*), covering 40 per cent in the interior patches behind the *mangle rojo*; *mangle de botoncillo* (*Conocarpus erectus*), in sand in 14 per cent of the area; *mangle blanco* (*Laguncularia racemosa*), much less prevalent and covering only 0.1 per cent of both habitats in a few areas.

In the arid parts of this region, the most common xerophytic species (adapted to dry and scorched soils) are: *cardón yaureyo* (*Subpilocereus repandus*), *yaguarey* (*Ritterocerus griseus*) and trees such as *cuica* (*Cercidium praecox*) and *guamache* (*Pereskia guamacho*).

18. **Noteworthy fauna**: On the Island of Margarita, ten subspecies of endemic birds have been recorded of which at least seven are found within the national park which is the principal or exclusive habitat for three of them. These include the *_ángaro* (*Aratinga acuticaudata neoxena*), a Psittaciformes seriously threatened with extinction with a population of less the 110 specimens: the *polla de mangle* (*Rallus longorostris margaritae*); and *chienguechera* (*Butorides striatus robinsoni*). There is also the *cotorra margarite_a* (*Amazona barbadensis*) whose population is a greater percentage of the total bird population than the other seven populations known of this species. The national park is the most important part of the island for aquatic birds, several species of which are threatened such as the *garza paleta* (*Ajaia ajaja*) and the *togogo* (*Phoenicopterus ruber*). The importance of this area as a resting and feeding place for migratory birds has been well documented.

Among the mammals present are the only two carnivores known on the Caribbean islands:

(*Felis pardalis* and *Conepatus semistriatus*). There are also two species of *conejo de monte* (*Silvilagus floridanus margaritensis*) and the *venado insular* (*Odocoileus virginianus margaritensis*).

The most important of the reptiles are the sea turtles of which four species are found in the lagoon: *tortuga verde* (*Chelonya midas*), *tortuga parape* (*Erectmochelys imbricata*), *caguamo* (*Caretta caretta*) and the reported sighting of a *tortuga cardón* (*Dermochelys coriacea*). There is also a large number of species of fish and this area is important for raising fry. The Restringa is also the main habitat on the island for several molluscs consumed by the local inhabitants.

19. **Social and cultural values**:

While most of the local inhabitants have traditionally been fishermen, the increased importance of tourism attracts more and more people. These people are, however, poorly trained. Few women are actively employed. Some of the local population sells handicrafts although what is sold does not usually reflect traditional and typical values. Another part of the population works in restaurants for tourists inside the national park.

The local population is strongly attached to religious symbols such as the Virgen del Valle, present in the processions of fishing boats. Other traditional celebrations are the Velorios de Cruz de Mayo and the local celebrations at Christmas.

20. **Land tenure/ownership of**:

Approximately 90 per cent of this area is private property.

21. **Current land use**:

Within the lagoon, the following activities are common: traditional small-scale fishing which is being replaced by more intensive and destructive techniques such as the use of drag nets. Small-scale fishing captures the following species for subsistence and commercial fishing: *lisa* (*Mugil curema*), *lebranche* (*Mugil liza*), sea bass (*Centropomus undecimalis*), shrimp (*Bulla striata* and other species), oyster (*Crassostrea rizophorae*), *moro de mangle* (*Goniopsis cruentata*) and other shellfish.

The extraction of sand is an important economic activity for some landowners outside the national park.

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

The Laguna de la Restringa was subject to adverse pressures before becoming a national park. Its incorporation as a protected area has decreased the threats of:

motor boasts passing through the channels
environmental contamination by motor boats in ports
illegal fishing with drag nets

illegal hunting
disturbance of nesting sites for sea turtles and flamingos
extraction of sand for use in construction
pollution with non-degradable litter
tourism on the beaches, especially during the tourist season

23. **Conservation measures taken**:

The national park has an operational and management plan adopted in 1991. General and focused projects have been implemented as well as research such as the "Programa Venezolano Integrado de Conservación y Desarrollo de las Islas del Caribe" (Programa Islas del Caribe-PIC); environmental studies; a study of arid regions; a study on the *cotorra cabeciamarilla* and the *ñángaro* (*Aratinga acuticaudata neoxena*), a parrot indigenous to the park; a study of the operations of the park; and projects for conservation education.

24. **Conservation measures proposed but not yet implemented**:

There are projects in the management and operational plan for the park and others including one on the choices for the development and conservation of the national park.

25. **Current scientific research and facilities**:

Among the research being carried out in the national park are a study of the mangrove oyster (under the auspices of the Fundación La Salle) and the programme for the conservation of the _ángaro (*Aratinga acuticaudata neoxena*) that includes a survey of birdlife with emphasis on the *polla de mangle* and Psittaciformes (sponsored by PROVITA). Privately sponsored research projects are being carried out on ecology, sedimentology and economic activities.

26. **Current conservation education**:

There is a programme "Education for the Conservation of the Parque Nacional Laguna de la Restringa, Using the _ángaro as Symbol" (INPARQUES-PROVITA) in which many local inhabitants act as park rangers and participate in the research and environmental education. At the park headquarters, conferences are held on the features of the park and their importance. An effort is made to study new approaches to the sustainable development for inhabitants living near the park. Discussions are held on the period of turtle reproduction for both inhabitants and tourists.

27. **Current recreation and tourism**:

There are no programmes at the present time in this field, although an operational plan and management regulations are being prepared.

28. **Jurisdiction**:

Instituto Nacional de Parques (INPARQUES)
Ministerio del Ambiente y de los Recursos Naturales Renovables

29. **Management authority**:

Instituto Nacional de Parques
Superintendencia del Parque Nacional Laguna de la Restinga
Dirección General Sectorial de Párques Nacionales

30. **Bibliographical references**: