

# **A Presentation on The Nariva Swamp Ecosystem**

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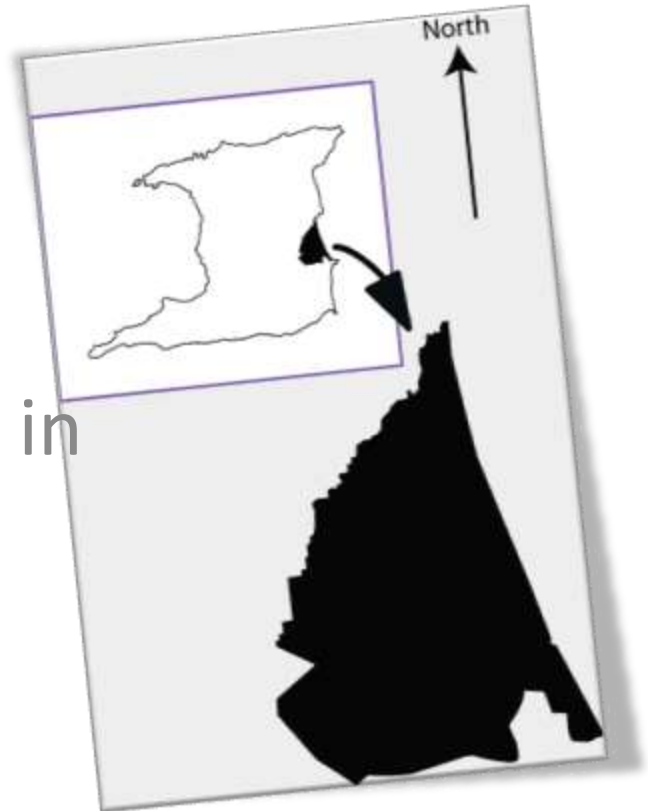
# Introduction

- Location & Size
- Topography & Hydrology
- Biodiversity
- Legal Status
- Social Status
- Major Interests & Stakeholders
- Threats & Interventions



# Location & Size

- Located on the East Coast
- The largest freshwater wetland in the country and the Caribbean
- 11343 Hectares (113 Sq. Km)



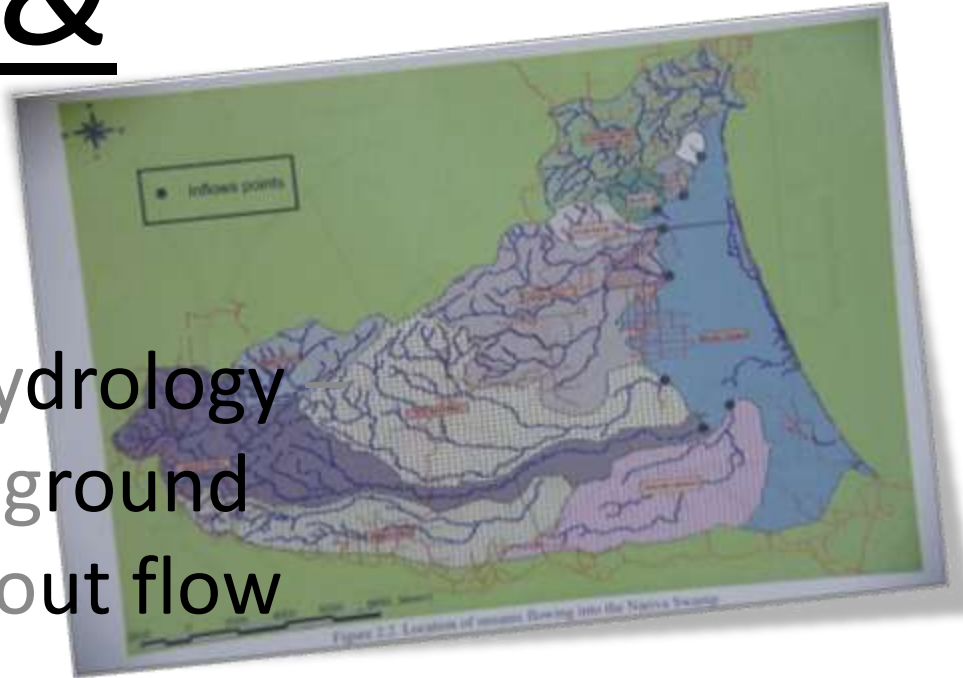
# Topography & Hydrology

- More than 90% of the Swamp is below 5m in elevation
- A maximum elevation of 40m occurs at the mud volcanoes on Bois Nuef Hill



# Topography & Hydrology

- A three-fold view of hydrology inflow (rain, rivers and ground supply), retention and out flow
- Fresh water inflow comes from the western catchment off the slopes of the Central Range via 8 rivers





# Topography & Hydrology

- Retention is influenced by clays and marls with low permeability and the Cocal Sand Bar on the east
- The water out-flow from the Swamp occurs via the Nariva River into the Atlantic



# Biodiversity - *habitat*

- 5 major vegetation communities – Mangroves, Freshwater Marshes, Palm Swamp, Freshwater Swampwoods & Evergreen Seasonal Forests



# Biodiversity - species

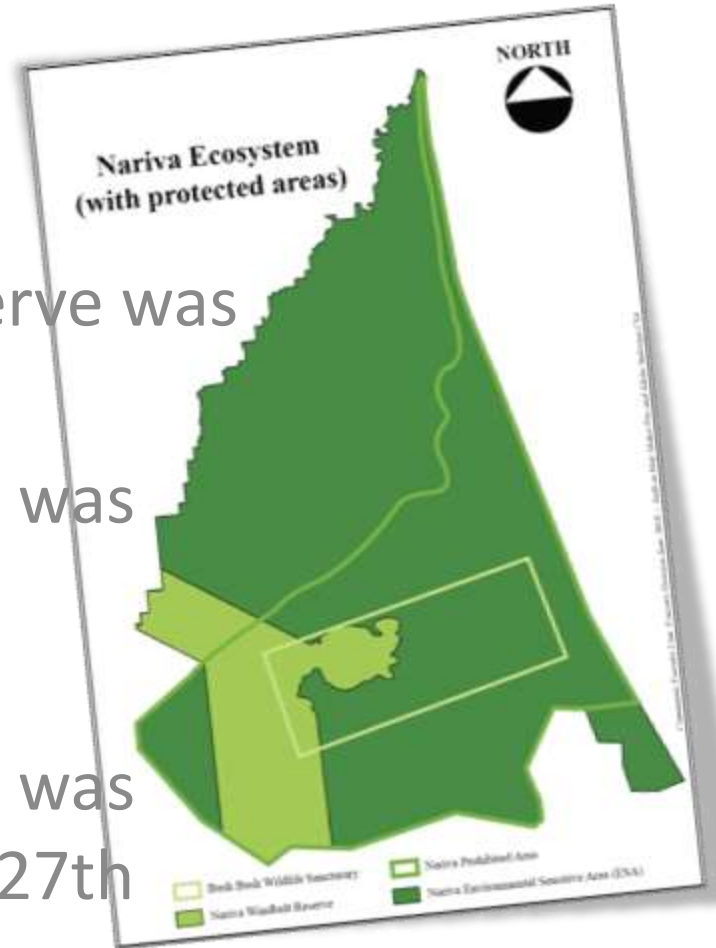
- 319 spp. of plants (Bacon 1979)
- 171 spp. of birds
- 45 spp. of mammals (including 32 bats)
- 39 spp. of reptiles
- Several spp. of aquatic life-forms





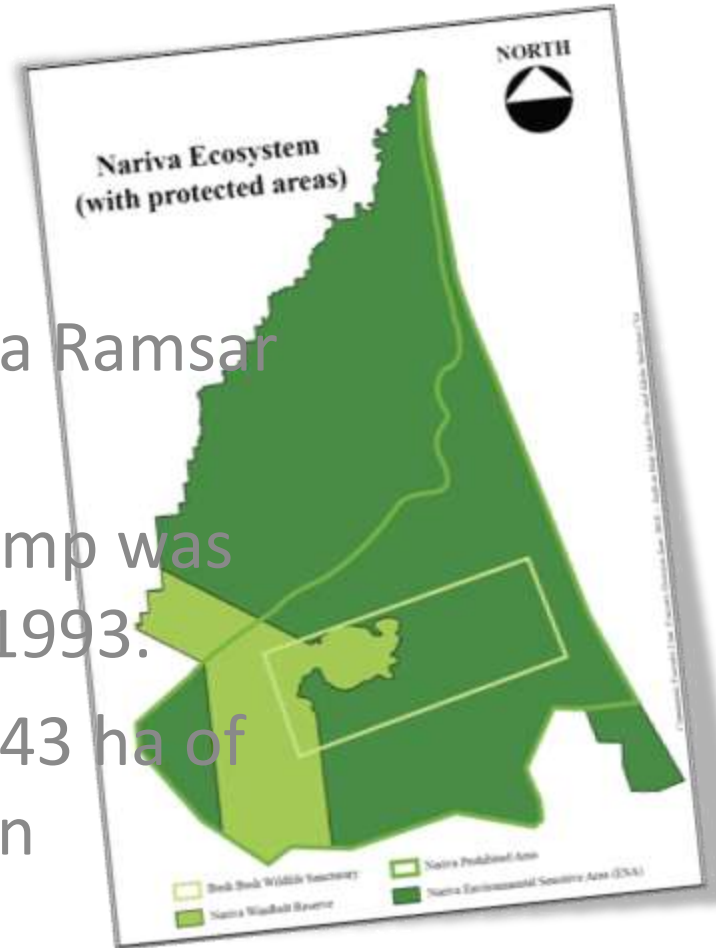
# Legal Status

- The Ortoire Nariva Windbelt Reserve was declared in 1954.
- The Bush Bush Wildlife Sanctuary was declared on the 16th July 1968. It comprises of 1,600 hectares.
- The Bush Bush Wildlife Sanctuary was declared a prohibited area on the 27th September 1989.



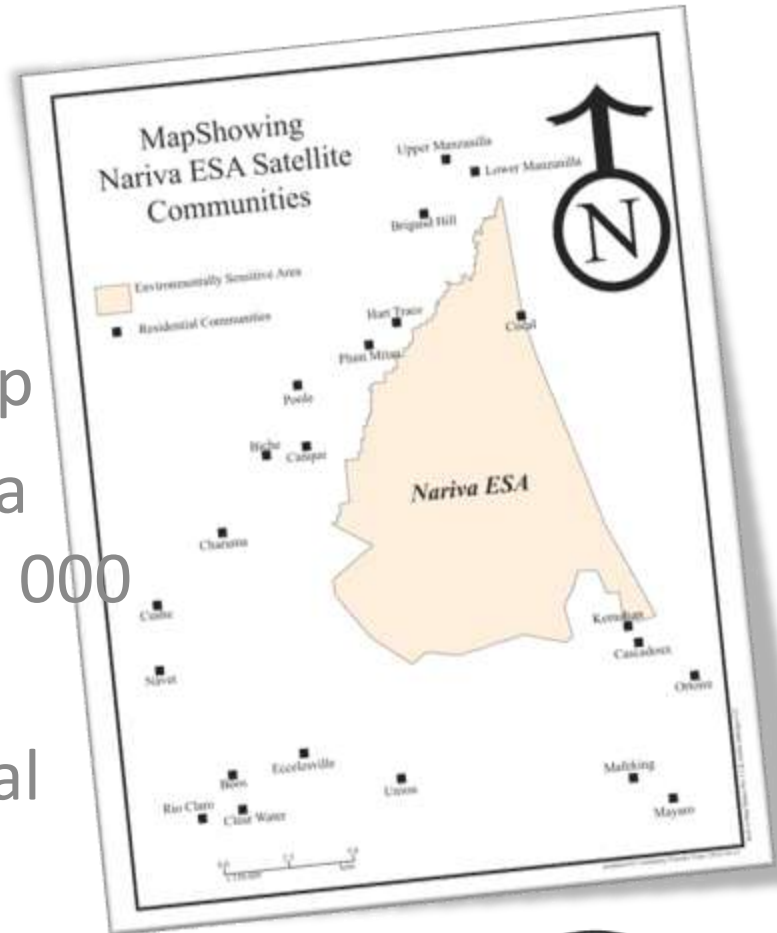
# Legal Status

- The Nariva Swamp was declared a Ramsar Site on the 21st April 1993.
- 6,230 hectares of the Nariva Swamp was declared prohibited on 21st May 1993.
- On 8th December 2006, the 11,343 ha of the Nariva Swamp was declared an Environmental Sensitive Area.



# Social Status

- There are over 20 satellite communities around the Swamp
- These communities represent a population of approximately 31 000 (CSO 2000 Census)
- The communities reflect several dependencies on the Swamp



# Key Stakeholders & Interests

Some Key Stakeholder	Interests
Communities and CBOs	Land tenure and economic advancement
Forestry, EMA, IMA, Fisheries	Conservation of biodiversity
Min. of Agriculture, Farmers	Food production
Tour Operators	Tourism
Private landowners (at periphery of PA)	Economic advancement

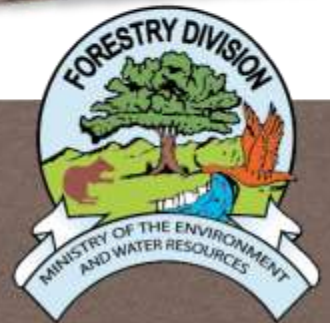




# Threats & Interventions

- The “Evil Quartet”:

- *Ecosystem stress – Increase flooding due to deforestation unsustainable agricultural practices*
- *Habitat Loss – Palm Swamp to fires*
- *Over-Exploitation - Cascadoux*
- *Exotic/Invasive spp. – Red Palm Mite*



Interventions in achieving

Aichi Targets 5, 11 and 15.....

# Threats & Interventions

- Forestry Division:

- Reintroduction of extirpated Spp. – Blue & Gold Macaw*
- Regeneration of key/declining Spp. - Moriche Palms*
- Fire traces & Law Enforcement Patrols*
- Community Awareness/Training*



# Threats & Interventions

- National watershed Rehabilitation and Reforestation Programme

- Community mobilization for reforestation, Fire tracing, patrols, and forest awareness*





# Nariva Swamp Carbon Sequestration, Restoration and Livelihoods Project

- Accessed 69 Million TT dollars from the Green Fund to rehabilitate 571 ha
- Approx 210 ha re planted/ 70 % survival rate
- Full co management with 9 community groups from nursery, planting, tending, fire control
- Some group conflicts
- Some new initiatives WL farming, handicraft, tours

# Massive publicity, education and outreach programme

- Field station inside exhibition wrap
- Outside IAS wrap
- Two Billboards on the threats to Nariva
- Mobile exhibition unit – the environmental express bus

*Thank you !!!*

