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*Marine and Freshwater Research*

### **Supplementary Material**

#### **Piloting the rapid R-MEET framework at a coastal Ramsar Site**

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## Rapid Ramsar Management Effectiveness Evaluation Tool for Caroni Swamp

### Site Context

1. Name of Ramsar site: [Caroni Swamp](#)
2. Date when Ramsar Site listed: [May 2005](#)
3. Total area of Ramsar Site: [8398 ha](#)
4. Reasons for designation
  - a. Identify the key values of the site that reflect the Ramsar criteria used for site designation.
    - 2 - A wetland should be considered internationally important if it supports vulnerable, endangered, or critically endangered species or threatened ecological communities.
    - 3 - A wetland should be considered internationally important if it supports populations of plant or animal species important for maintaining the biological diversity of a particular biogeographic region.
    - 4 - A wetland should be considered internationally important if it supports plant or animal species at a critical stage in their life cycles, or provides refuge during adverse conditions.
  - b. Identify other key values (not from the Ramsar criteria) of the site.
    - i. subsistence and commercial fishing and harvesting of crabs and oysters
    - ii. nature-based tourism
    - iii. recreation
    - iv. agriculture
    - v. industrial development
    - vi. spiritual or religious use

### National Context

5. Is there a national wetland policy?
  - a. Circle one: **Yes** No
  - b. If yes, what is it? [National Policy and Programmes on Wetland Conservation for Trinidad and Tobago](#)
6. Is there a designated national authority for Ramsar implementation?

a. Circle one: **Yes** No

b. If yes, who is it? [Ministry of Agriculture, Land and Fisheries, Forestry Division](#)

7. Is there a standardised national definition of a wetland? What is it?

a. Circle one: **Yes** No

b. If yes, what is it? [“Wetlands are areas of marsh, fen, peatland or water, whether natural or artificial, permanent or temporary, with water that is static or flowing, fresh, brackish or salt, including areas of marine water the depth of which at low tide does not exceed 6 m.”](#)

8. Is there designated funding for Ramsar site management?

a. At the national level - circle one: Yes **No**

b. At the site level - circle one: **Yes** No

#### Site Management

9. Is there an up-to-date management plan being implemented?

a. Circle one: **Yes** No

b. If yes, upload the management plan here. [Management Plan for Caroni Swamp Protected Area, 2019–2029](#)

10. What is the definition of wise use used by the management team? [None defined at the site level; presumably operating under the broader wise use definition in the National Wetland Policy which is as follows: “The National Wetland Policy for Trinidad and Tobago provides a rational framework through which the wise use of our wetlands can be achieved. These principles are also consistent with fulfilling our obligations under the Convention on Wetlands”](#)

11. What are allowable uses for the site?

a. **Food crop cultivation**

b. Timber extraction

c. Mineral extraction

d. Aquaculture

e. **Fishing**

f. **Hunting**

g. Water

- h. Foraging or harvesting**
- i. Traditional cultural or religious uses**
- j. Other: tourism**

**12. What ecological indicators are currently being monitored regularly on site? None currently**

- a. Hydrological monitoring**
- b. Vegetation surveys**
- c. Bird surveys**
- d. Invasive species**
- e. Land use change**

### **Community Relations**

**13. What are the direct economic benefits of the site? (For each that applies, provide estimates)**

- a. Employment on the site (management, maintenance): Some portion of US\$71 276.90**
- b. Revenues in entry fees: None currently levied**
- c. Revenues in use permits: None currently levied**
- d. Revenues from programming: None currently offered**

**14. What are the indirect economic benefits of the site? (For each that applies, provide estimates)**

- a. Employment in related sectors (tourism, education, hospitality, fisheries, agriculture, etc.)**
  - i. make-work (\$1050)**
  - ii. self-employment (\$677 200)**
  - iii. formal employment (\$2 625 500)**
  - iv. Informal employment (\$229 800)**
  - v. other employment (\$53 300)**
- b. Revenues from associated markets (tourism, education, hospitality, fisheries, agriculture, handicrafts, etc.)**
  - i. game meat (\$300)**
  - ii. agriculture (\$17 975)**

- iii. tourism (Exact monetary values are not available, but estimates suggest that tourism in the Swamp generates between US\$221 000 and \$265 000 per year
- iv. 2019 FAO survey of 10 581 found that ~23.5% of households in surrounding communities generate income from extractive uses of the site. Respondents ranked income and employment as the 4th most important function of the Swamp.

**15. What is the role of stakeholders in informing management decisions? As of the drafting of the management plan, none existed. However, the current management plan outlines a plan for the development of a participatory management or co-management plan.**