

**Environmental Impact Assessment
and
Environmental Management Plan**

Date 22 March 2014

CEPF Grant 64193

Grantee: Caribbean Coastal Area Management Foundation

Project Title: Implementing the Hellshire Hills and Portland Ridge Sub-areas Management Plans
in Jamaica

Project Location

Hellshire Hills and Portland Ridge KBAs, Jamaica

Grant Summary

1. Grantee organization. Caribbean Coastal Area Management Foundation
2. Grant title. Implementing the Hellshire Hills and Portland Ridge Sub-areas Management Plans in Jamaica
3. GEM number (*to be completed by CEPF*). 64193
4. Grant amount (US dollars). \$269,690.
5. Proposed dates of grant. April 2014 to July 2015
6. Countries or territories where project will be undertaken. Jamaica
7. Summary of the project. The project seeks to implement the management plans for Hellshire Hills and Portland Ridge KBAs, including establishing management agreements with stakeholders, assessing the feasibility of Conservation Agreements for Hellshire Hills KBA, a cost-benefit analysis for the proposed logistics hub. This element of the project focuses on the conservation of threatened plants. It seeks to establish the basis for the conservation of threatened species, through establishing an ex situ plant conservation nursery (ESPCN), at which threatened plants will be grown from local genetic material. This will
 - a. Establish the technology for growing plants that have not previously been in cultivation
 - b. Establish an ex situ population of the threatened plants, thereby reducing the risk of extinction
 - c. Provide the basis for establishment of Conservation Gardens in which private individuals will cultivate threatened species
 - d. Provide the basis for plant sales to ensure sustainability of the nursery and income for local people
 - e. Support education and awareness building for visitors to the Wetlands Interpretation Centre and at flower shows and other events.
8. Date of preparation of this document. 23 March 2014
9. **Status of area to be impacted:** This section should describe the applicant's understanding of the site.

The site to be impacted is at the site of C-CAM's Wetland Interpretation Centre, which is near Salt River, Clarendon, Jamaica. There is nothing on the site at present, except that the ground has been leveled in preparation for the construction of the Interpretation centre. The construction is due to start in April 2014 and should be finished by October 2014.

10. **Approach:** This section will describe proposed actions during the project. Specifically, what do you intend to do and how will you do it?

The project will include the construction and operation of an ex situ plant conservation nursery (ESPCN) whose exact dimensions are yet to be determined but is expected to be 20 X20 (subject to budgetary constraints). The nursery is a new building. As this is a long term project, the nursery has to be built sturdily. It will be constructed using a frame made out of fence pipe, with shade cloth held in place by guy wires. It will be necessary to install water collection systems (including gutters, 1000 gal. tank and pumps) because the water supply in the area is not dependable. A small potting shed and a tool shed will also be required.

11. **Anticipated impact:** this section will describe the impact and how this impact has been determined.

Design phase: Technical experts and local community members have been involved in designing the concept, selecting the location and design of ESPCN. No impacts are expected during this phase.

Construction phase:

- Establish the base for the ESPCN – preparation of site. The site will be raised and leveled. There are no plants on the site at present. No adverse impacts are expected.
- Construct the ESPCN – This will involve laying cloth on floor, digging holes for posts, and installing guy wires and shade cloth, connecting water pipes to existing water sources, installing lighting from solar system for the interpretation centre, putting up signs.

Operation phase:

- Collect seed and planting material from the wild. This will be done sustainably, and no adverse impacts are expected. Viable populations of wild plant sources will be left in the wild. This will be done by community members under the supervision of the plant conservation specialist. Plant seed and planting material in bags and pots in the ESPCN. No adverse impacts are expected. Plants will be in pots and there will be no run off.
- Water plants at appropriate intervals. This will be done by hand or using drip technology, so there will be no run off of excess water.
- Maintain plants in ESPCN (weeding, replacement planting). No chemicals or fertilizers will be used.
- Workers and visitors to the ESPCN will use toilet and other staff facilities provided in the Wetland Interpretation Centre. The facilities will include 4 commodes and 4 face basins including access persons with disabilities. Organic wastes (plant cuttings) will be composted on site and used as fertilizer.
- Every effort will be taken to minimize solid wastes, but there will be some non-biodegradable wastes such as partially degraded plant bags and pots. These will be disposed of through a normal arrangement with the municipal garbage collectors.

12. **Mitigation measures:** Describe measures that will be taken to mitigate negative impacts. No mitigation measures are necessary.

13. **Actions to ensure health and safety:** Describe actions that will be taken to ensure the health and safety of workers as well as the site. Include a description of waste management and/or disposal.

Health and safety for workers

There will be one or two workers at the ESPCN. They will take care of the garden, watering plants and doing routine tasks such as planting and pruning. They will be provided with safety equipment including hard hats, back braces, boots, gloves, eye shields and facemasks.

Waste management and disposal

- Sewage and wastewater will be diverted into an approved artificial wetland which will produce water which will be used to water plants and plant material which will be composted. This wetland is being constructed as part of the Wetland Interpretation Project.
- Organic wastes will include dead leaves and plant material, which will be composted and used as fertilizer. This will be part of the educational aspects of the Wetlands Interpretation Center Project.
- Other solid wastes will be disposed of through regular municipal garbage disposal.

14. **Permission of the landowner:** Please verify permission of the landowner to undertake actions on the site, and verify that you have the required permits to undertake this work.

Permission to use the site and the surrounding area for conservation and interpretation purposes was a prerequisite for the Wetland Interpretation Centre and has been received from the SCJ Holdings, which administers the land on behalf of the Government of Jamaica. A peppercorn lease arrangement for the site of the interpretation centre and the surrounding wetlands (including the Rocky Point peninsular) has been agreed in principle and will be finalized shortly. The nursery is part of the same complex and there is no expectation that any additional permission is needed.

15. **Consultation:** This section aims to outline the range of informed consultations that the grantee has had both with experts to optimize the potential for success, and with stakeholders, particularly local communities, who are potentially affected by the proposed actions. Include dates of consultations. The project was developed as part of the participatory management planning process for the PBPA. It has been discussed with the previous director of the only field gene bank ever established in Jamaica, who has assisted with the development of the project. Individual discussions have been held with local community members and garden owners and have received enthusiastic support. Local community members are enthusiastic about the prospects for income generation.

16. **Disclosure:** CEPF requires that safeguard documents are disclosed to affected local communities and stakeholders prior to project implementation. Please describe efforts to disclose this impact assessment and environmental management plan and provide dates.

This will be done as soon as the project is approved. We have been having on-going discussions with the community regarding all projects prior to and during implementation and we expect to continue those discussions once the contract is signed for this project. It is expected that we will have a community meeting in the second quarter of 2014 where this will be discussed. The Community Development Officers will be expected to have further discussions with community and other stakeholders about this and other aspects of the project throughout the implementation period.

17. **Monitoring and Evaluation:** This section aims to outline what steps the proponent will take to monitor and evaluate the impact of the proposed intervention.

- a. Design phase – a monitoring and evaluation plan will be finalized by the plant conservation specialist.
- b. Construction phase – C-CAM and the consultant will monitor site preparation, delivery and storage of materials, and construction to ensure that there is no unnecessary damage to the surrounding area, and that health and safety measures are followed by the contractors, whose contracts will establish health and safety standards consistent with CEPF standards.
- c. Operation phased – C-CAM will be responsible for monitoring the artificial wetland, compost heap and for ensuring appropriate disposal of garbage.
- d. Quarterly reports will be provided by C-CAM to the community and relevant agencies (e.g. NEPA, Forestry Department) as well as included in CEPF progress reports, including the effectiveness of the proposed routine measures. If any incidents occur they will be described in the reports, including the effectiveness of any mitigation measures.