

THE GOAT ISLANDS / PORTLAND BIGHT PROTECTED AREA

THE PROPOSED SITE FOR A TRANSSHIPMENT PORT IN JAMAICA

December 2013



Great Goat Island August 2013 ©International Iguana Foundation

BACKGROUND

In August 2013, the Government of Jamaica (GOJ) revealed that China Harbour Engineering Company (CHEC), had selected the Goat Islands as their preferred site for a proposed transshipment port, part of a larger plan for a 'logistics hub' in Jamaica. These two small islands lie about 1.5 km off the south coast of Jamaica within the waters of a large, open and shallow bay called Portland Bight. This bay and the lands surrounding it form part of the Portland Bight Protected Area, created in 1999 under the Natural Resources Conservation Authority (NRCA) Act.

Public opinion has been sharply divided on the proposed site for the transshipment port. On the one hand, concerns have been raised about plans to site a major port in a protected environmentally-sensitive area, apparently without regard to national land use planning, vulnerability to natural disasters, or the damage to existing and potential socio-economic values and ecological services. On the other hand, the project has been welcomed by those who assert that the anticipated economic benefits of the port would outweigh any environmental impacts of the project and resulting impacts on existing livelihoods.

KEY ISSUES AND RECOMMENDATIONS

KEY ISSUES

- The Government of Jamaica and China Harbour Engineering Company have proposed to build a transshipment port at Goat Islands in the Portland Bight Protected Area (PBPA)
- PBPA is Jamaica's largest protected area (1,876 sq. km)
- 379 species of plants have been found in PBPA
- Seven species of animals have been found in the PBPA that exist nowhere else in the world
- PBPA is protected under four laws, has two forest reserves, six game sanctuaries, and three fish sanctuaries

KEY RECOMMENDATIONS

- Respect and adhere to the national plans and national and international laws for the area
- Conduct a cost-benefit analysis of the options for other locations
- Make public the plans for the proposed port
- Conduct a Strategic Environmental Assessment of the proposed port to assess all likely impacts
- Involve all stakeholders in the decision-making process

THE PORTLAND BIGHT PROTECTED AREA

The Portland Bight Protected Area (PBPA) covers 1,876 sq km of land and sea on Jamaica's south coast spanning parts of Clarendon and St. Catherine, equalling 4.7% of Jamaica's land area and 47.6% of the island shelf (shallow waters surrounding Jamaica). The valuable natural resources of this region include: dry limestone forests, wetlands, mangrove forests, beaches, seagrass beds, coral reefs, caves, and approximately 379 species of plants and 18 species of native animals, seven of which are found only in the PBPA.



Hellshire coastline, Goat Islands in the distance, August 2013
© Jeremy Francis

Natural Heritage - Ecosystems and Species

Dry limestone forests located on Portland Ridge, Kemps Hill, the Braziletto Mountains, the Hellshire Hills and Great Goat Island are nationally and regionally important examples of an increasingly rare forest type and contain 53 known caves. The animals of the area include the Jamaican Iguana (*Cyclura collei*) – one of the rarest and one hundred most threatened species in the world (See Table 1).

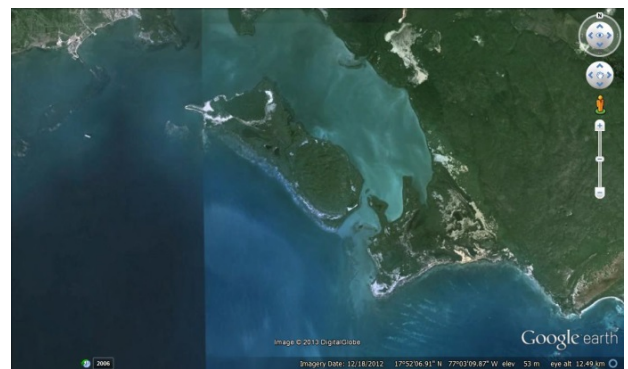
Wetlands represent less than two percent of Jamaica's land area. The PBPA has the largest remaining mangrove system in Jamaica (the Great Salt Pond, Galleon Harbour, West Harbour, the Goat Islands, and almost all areas between), accounting for 21 percent of Jamaica's mangroves. These mangroves, together with extensive seagrass beds and coral reefs, provide probably the largest nursery area for fish, crustaceans, and molluscs on the island (Linton 2003). This is also an important habitat for protected animals including the American Crocodile (*Crocodylus acutus*), the Bottlenose Dolphin (*Tursiops truncatus*), the West Indian Manatee

(*Trichechus manatus*) and many birds, including the globally threatened West Indian Whistling Duck (*Dendrocygna arborea*), one of the rarest ducks in the world (Haynes-Sutton 2010).

Coral reefs are found mainly in the shallow waters surrounding the nine small islands or cays within the PBPA. The PBPA includes some of the most extensive areas of coral reef in Jamaican waters, and although, like reefs islandwide, they are under stress, in 2003, hard coral cover at six reef sites surveyed ranged from 5.8 to 33.4 percent and "fish counts were generally higher than at other Jamaican sites surveyed using Reef Check method" (Linton 2003). The Galleon Harbour area, in particular, is a major nursery and critical habitat area for fishable species of all types, including snapper, grunt, lobster, shrimp, and oysters (Haynes-Sutton 2010).

Beaches in the PBPA and on its cays are considered the most important nesting areas for sea turtles in Jamaica, with at least four species of globally endangered sea turtles nesting there (Haynes-Sutton 2011). The beaches of the PBPA are valuable to local communities as fishing beaches and for recreation.

THE GOAT ISLANDS



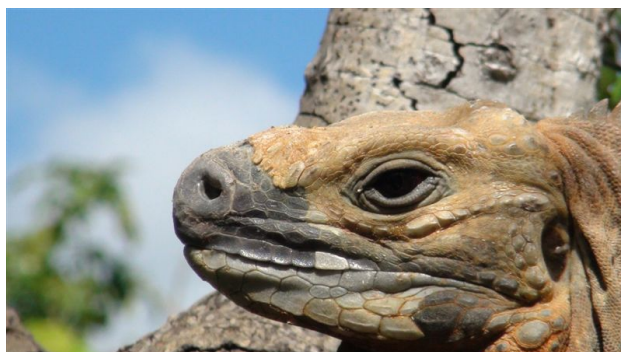
Goat Islands 2013 © Google Earth

Great Goat Island (600 acres) and Little Goat Island (300 acres) are the largest islands in the PBPA. The **Goat Islands** lie about 1.5 km offshore, southwest of the Hellshire coast and are connected to each other by mangroves. The hill on Great Goat Island rises to about 100 m and is covered with dry limestone forest. Little Goat Island is flatter with the highest elevation just over 20 m. During World War II, Little Goat Island was leased to the United States for the establishment of a naval base, consisting of a seaplane ramp, two timber piers and various buildings; some dredging was done to remove reefs

from the seaplane runway and deepen the anchorage for ships (Conrad Douglas and Associates 2013). The lease to the US Government is no longer in force; the Urban Development Corporation (UDC) holds the title to the Goat Islands (Luton 2013).

The Jamaican Government has long proposed using Goat Islands as a wildlife sanctuary for the Jamaican Iguana which is currently threatened from non-native predators such as cats, dogs, mongooses, and wild pigs (NEPA 2003).

The creation of the sanctuary is considered essential for the recovery of the Jamaican Iguana (Grant 2013).



Jamaican Iguana (*Cyclura collei*) © Jan Pael

TABLE 1: EXAMPLES OF ENDEMIC FAUNA OF THE PORTLAND BIGHT PROTECTED AREA	
Some animals found ONLY in the PBPA	Some rare, threatened, or endangered animals found in the PBPA
<ul style="list-style-type: none"> • Portland Ridge Frog, <i>Eleutherodactylus cavernicola</i> • Portland Ridge Trope (Thunder Snake), <i>Trophidophis stullae</i> • Jamaican Brown Trope (Thunder Snake), <i>Trophidophis jamaicensis</i> • Blue-Tailed Galliwasp, <i>Celestus duquesneyi</i> • Jamaican Iguana, <i>Cyclura collei</i> • Jamaican Skink, <i>Spondylurus fulgidus</i> • Bahama Mockingbird, <i>Mimus gundlachii hillii</i> 	<ul style="list-style-type: none"> • Jamaican Hutia (Coney), <i>Geocampromys brownii</i> • West Indian Manatee, <i>Trichechus manatus</i> • Jamaican Greater Funnel-eared Bat, <i>Natalus jamaicensis</i> • Jamaican Pauraque, <i>Siphonoris americana</i> [possibly extinct] • West Indian Whistling Duck, <i>Dendrocygna arborea</i> • Jamaican Slider Turtle, <i>Trachemys terraein</i> • American Crocodile, <i>Crocodylus acutus</i> • Parker's Polly Lizard, <i>Sphaerodactylus parkeri</i> • Jamaican Boa, <i>Epicrates subflavus</i> • Jamaican Blindsnake, <i>Typhlops jamaicensis</i>

Sources: (Hedges 2013), (NEPA 2003), (BirdLife International 2009)

TABLE 2: LEGAL PROTECTION UNDER JAMAICAN LAW				
Year Declared	Type of Protected Area	Legal Instrument	Names of Areas	Reasons for Protected Status
1999	Protected Area	Natural Resources Conservation Authority Act (1991) (Section 5)	Portland Bight Protected Area	Protection of ecosystem services and biological diversity.
1996	(2) Forest Reserves	Forest Act	Peake Bay and Hellshire Forest Reserves	Conservation of forests, soil, and water resources, provision of parks and other recreational amenities, protection and conservation of endemic flora and fauna.
Various years (1994-2004)	(6) Game Sanctuaries	Wildlife Protection Act	Little Goat Island, Great Goat Island, Amity Hall, West Harbour-Peake Bay, Cabarita Point, Long Island	Protection of wildlife from hunting, the taking of eggs and the introduction of predators such as dogs.
2009	(3) Fish Sanctuaries	Fishing Industry Act	Three Bays, Galleon Harbour, Salt Harbour	Protection of fish spawning and nursery areas from fishing, in order to allow fish populations to recover.

Sources: (NEPA 2011) (GOJ 1991) (Forestry Department 2013)

International Designations

TABLE 3: INTERNATIONAL DESIGNATIONS FOR THE PORTLAND BIGHT PROTECTED AREA				
Year	Type of Area	Organisation	Name of Area	Rationale / Purpose for Designation
2006	Wetlands of International Importance	Ramsar Convention	Portland Bight Wetlands and Cays	Internationally important for conservation of biological diversity, particularly waterfowl. To promote conservation of habitat (spawning ground, nursery, and/or migration path on which fish stocks depend).
2009	Important Bird Area	BirdLife International	Portland Bight IBA	Areas of habitat for globally threatened birds, thus priority conservation areas.
2010	Alliance for Zero Extinction site	Alliance for Zero Extinction	Hellshire Hills	Survival of globally threatened species, especially the Jamaican Iguana
2011	Key Biodiversity Areas in the Caribbean Islands Biodiversity Hotspot	Critical Ecosystems Partnership Fund	Braziletto Mountains, Portland Ridge and Bight, Hellshire Hills	Areas where globally threatened species of wildlife occur, as defined by IUCN. Conservation strategy is to integrate biodiversity conservation into landscape and development planning and implementation.
2012	Biosphere Reserve (conditional approval)	United Nations Educational, Scientific, and Cultural Organization (UNESCO)	Portland Bight Biosphere Reserve	To conserve biodiversity in terrestrial and coastal ecosystems while allowing sustainable use.

Sources: (Levy 2008), (BirdLife International 2009), (BirdLife International 2013), (CEPF 2011), (IUCN 2013), (NEPA 2011), (UNESCO 2013)



Old Harbour Bay Fishing Beach ©Jan Pael

Cultural and Historical Resources

Within the PBPA there are numerous sites of archaeological and historical importance, such as the Two Sisters Cave, St. Dorothy's Anglican Church (late 17th century), Halse Hall Great House, and the site of the US WWII Naval Base on Little Goat Island. Taino artefacts have been found at numerous sites, among them Hellshire, Braziletto, Holms Bay, Jackson Bay, Portland Ridge, Taylor's Hut, Great Salt Pond, and in 17 caves, including one on Little Goat Island (Allsworth-Jones 2008) (Stewart 2013). Caves were used as burial sites by the Taino, who painted pictographs and carved petroglyphs on their walls.



Taino Petroglyph, Portland Bight Cave © Paul Banks

Communities and livelihoods within the PBPA

About 50,000 persons live within the boundaries of the PBPA in an estimated 44 residential communities (C-CAM 2013). Of the approximately 18,000 fishers in Jamaica, about 4,000 are based in the coastal communities of Clarendon and St. Catherine, where 21 percent of registered fishing vessels are based (MOAF 2013). In addition to fishing, local livelihoods within the PBPA include farming and the exploitation of forest resources - harvesting of thatch, cutting of trees for lumber, yam sticks, charcoal production, and sugar cultivation. Industrial activities within the area include alumina storage and shipment ports at Port Esquivel (Windalco) and Rocky Point (Jamalco), a power station (JPS), a floating power barge, an ethanol refinery, and a sugar factory (Monymusk).

Management – Caribbean Coastal Area Management Foundation (C-CAM)

Since 2003, management of the PBPA was delegated by the National Environment and

Planning Agency (NEPA) partly to the Caribbean Coastal Area Management Foundation (C-CAM) and partly to the Urban Development Corporation (UDC); the areas under UDC management included part of the Hellshire Hills and the Goat Islands. Delegation instruments expired in 2008 and negotiations are in progress for new arrangements (I. Parchment, pers. comm. 2013). In 2011, the Ministry of Agriculture and Fisheries delegated management responsibility for the three Fish Sanctuaries located within PBPA to C-CAM. C-CAM has focused on managing the area through participatory planning, research and community-based conservation programmes including a fisheries management programme, invasive species control, an alternative livelihoods project (boat tours), mangrove restoration, a Wetlands Interpretation Centre, and has plans for a Heritage Village (C-CAM 2013).

Ecosystem services

The natural ecosystems of the PBPA provide ecological services that have economic value. These include shoreline protection from storm surges, flooding and beach erosion, fisheries, carbon fixation by forests, and tourism opportunities (NEPA 2011). The PBPA has Jamaica's largest, most productive nursery areas for fish, lobster, and conch, the value of which is reflected in the annual catch of most south coast based fishers (likely 20 percent or more of the island's total catch). Jamaica's Draft Protected Areas System Master Plan estimates the carbon sequestration value of the PBPA's mangrove forests to be US\$45 million per year and the total coastal protection value of the area's marine and coastal ecosystems to be US\$400,000 per year (Cesar 2001) (NEPA 2012).

THE PROPOSED TRANSSHIPMENT PORT

In Beijing, on 22 August 2013, Jamaica's Minister of Land, Water, Environment, and Climate Change, the Hon Robert Pickersgill, stated that the Goat Islands were "under very serious consideration" as the site for a planned transshipment port to be built by the Chinese state-owned China Harbour Engineering Company at a cost of US\$1.5 billion. New, larger transshipment ports are required in the Caribbean due to the expansion of the Panama Canal by 2015 to accommodate ships 366 m long by 49 m wide with draughts of up to 15.2 m (Chin 2013). The GOJ deems this project urgent and critical to Jamaica's economy.

What is planned for the transshipment port?

QUESTIONS LEFT UNANSWERED

- What is the full scope and nature of the proposed port? What is the precise location?
- What are the direct and indirect benefits and costs? To whom?
- Are there other sites where the costs would be less and benefits more?

Few details have been provided by the GOJ on the planned development of the transshipment port in response to questions from the public and requests under the Access to Information Act. The Minister of Transport, Works, and Housing, Dr the Hon Omar Davies, who has portfolio responsibility for the proposed port, has issued two statements to Parliament, one on September 10, 2013 (Davies, Statement 1, 2013) and an update on October 29, 2013 (Davies, Statement 2, 2013b). Key points provided in these sources include:

- Fort Augusta was first considered as the proposed site when the MOU was signed prior to 2012, but was rejected because the scope and nature of the project had expanded.
- A new period of assessment was approved, April 21, 2013 to April 30, 2014.
- CHEC informed the Port Authority of Jamaica (PAJ) that their first choice was the Goat Islands and lands to the north on the mainland.
- A J\$1.3 million 'environmental management scoping study' of the area was commissioned by the PAJ, the results of which were to be used to inform the terms of reference for the Environmental Impact Assessment for the port project.

The Environmental Management Scoping Report (EMSR)

The EMSR, released on October 16, 2013, was to "identify the legal and regulatory environment, the natural heritage resources, the industrial and commercial interest [sic], and the principal biophysical and socio-cultural characteristics of the Portland Bight Protected Area."

The study was reviewed by a number of environmental groups, interested individuals and scientists who found the EMSR much too limited in terms of the geographic scope of the likely impacts; deficient in the literature review; lacking the input of local scientists, government agencies, and experts from C-CAM; deficient in field work; and containing many factual errors about the biodiversity of the area.

The study and review can be found at:

<http://savegoatlands.org/information/goj-contracted-scoping-report-and-review/>.

Estimating physical impacts of port construction and associated infrastructure

Extrapolating from the parameters of existing and planned transshipment ports, the immediate physical impacts would be from dredging the sea floor, removal of coastal mangroves and seagrasses, and paving of a large land surface. On 29 August 2013, a group of scientists, NGO representatives, and civil society leaders issued a press release calling the site "totally unsuitable" for the proposed port, citing the following likely impacts: destruction of coral reefs, seagrass beds, and mangrove forests; irreversible loss of biodiversity and critical habitats for several rare, threatened, or endangered species; loss of amenity values and eco-tourism potential; decline in productivity of fisheries; beach erosion; increased run-off and flooding from the land; increased vulnerability to natural disasters and climate change; and higher storm surges from the sea. This press release can be found at: http://savegoatlands.org/wp-content/uploads/2013/12/Press_release_Experts_reject_hub_Aug2013.pdf.

DEVELOPMENT, GOVERNANCE, AND THE PUBLIC INTEREST

All Jamaica's planning processes have zoned the PBPA primarily for conservation, for example, National Physical Plan 1974-1994, South Coast Sustainable Development Plan (Halcrow 1998), Highway 2000 Corridor Plan, and development orders and various participatory management plans for the PBPA and Hellshire Hills 1998-2013 (C-CAM 2011, 2013, and in prep.). Although some have proposed industrial areas at Rocky Point and Port Esquivel, none of the plans has ever suggested port development as a suitable use for the Goat Islands. Despite the scale of this proposed project

in an area under multiple layers of legal protection for its ecological benefits, there has been very little consultation with stakeholders.



Black River, St Catherine © Ted Lee Eubanks

RECOMMENDATIONS FOR THE GOVERNMENT OF JAMAICA

Respecting the urgent need for long-term, sustainable and equitable development in Jamaica, we, the signatory organisations listed below, call on the Government of Jamaica to take the following actions in the interest of the Jamaican people, our social, cultural and natural environment, and economic well-being:

1. **Resist pressure** to fast-track decision-making for this major development.
2. **Respect the national planning process** and adhere to the established development application process (including existing development orders, spatial plans, and other legal planning instruments, for the area and protected area legislation).
3. **Reject the scoping study** as a basis for decision-making.

4. Before taking a decision on where and how to proceed with this development:
 - a. Carry out a complete and transparent environmental and socio-economic **cost-benefit analysis of the options** for other locations for the development, to ensure the optimal site is selected.
 - b. **Make public the plans** for the proposed transshipment port in the vicinity of the Goat Islands, including the agreements, memoranda of understanding and the physical requirements for the transshipment port.
 - c. **Conduct a Strategic Environmental Assessment (SEA)** of a transshipment port at the optimal site before any decision is taken by Cabinet to proceed any further with the port. The SEA should include (*inter alia*):
 - a holistic analysis of the direct and indirect impacts of the proposed development on the environment of the PBPA and surrounding communities;
 - a climate change risk assessment;
 - assessment of the economic assumptions that have been made and how the number and types of jobs for Jamaicans was estimated;
 - the required skills and qualifications for employment; and
 - the total expected returns to Jamaica compared to the ecological services that will be lost or reduced.
 - d. If the SEA suggests the project is desirable, conduct the necessary Environmental Impact Assessments of all the various elements of the port development.
 - e. **Ensure full participation of all direct and indirect stakeholder groups** in the decision-making process.
5. **Comply with Jamaica's international commitments** to the environment (including the Ramsar Convention and Convention on Biodiversity).

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