

# STOP CORAL REEF MINING: ACTION NEEDED

Jennifer Tang  
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## Why are coral reefs important?

Coral reefs are crucial resources to local ecosystems around the world, playing key roles for food security, employment, as well as coastal protection. Many coral species are long-lived and grow slowly. These colonies are fragile and extremely vulnerable to exploitation and destruction. Without effective management and legal enforcement, the trade of coral reef products will jeopardize the status of coral reefs for future generations.

## What is coral reef mining?

Coral reef mining is a widespread activity in the Indian Ocean in particular [1], which results in extensive damage to the structure of the reef and its inhabitants. Coral reef species are removed from the reef during the mining process and traded in numerous domestic and international markets.



Corals are mined for calcium supplements, traditional medicines, live marine ornamentals for aquaria, souvenirs and construction materials [2]. While these practices provide economic benefits, they are often destructive for reef ecosystems.



## Impact of coral reef mining

**Sedimentation:** Sandy dust lowers temperatures and decreases sunlight levels, inhibiting the growth of many of the marine creatures. [3]

**Limited recovery:** Recovery of damaged reefs may be very limited, particularly when surfaces are reduced to mobile rubble which inhibits successful coral colonization and growth.

**Loss of protection:** As corals are broken down, the tropical storms are no longer slowed down by reef structures.

**Economic losses:** Coral mining creates long-term loss to fisheries and tourism. For every \$10 that is made from coral mining, the local community loses around \$250 worth of other services. [4]

**Loss of biodiversity:** Fish and other animals suffer from habitat loss during mining.

## CURRENT INTERNATIONAL REGULATIONS ON CORAL TRADE

The Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) is primarily responsible for the monitoring of coral trade.) It is an international agreement entered into force in 1975 to prevent species from becoming extinct as a result of international trade. Reef species listed under CITES include 2,000 species of hard corals, black coral, giant clams, queen conch, seahorses and sea turtles [5].

Appendix II is for species that may become threatened with extinction if trade of the species is not strictly regulated. All coral species are covered by CITES Appendix II. However, many countries lack the capacity and resources to enforce CITES obligations.

Many countries have banned coral mining, such as Sri Lanka and Indonesia, but due to lack of enforcement, the practice continues. Some prominent locations for mining activity include: the Great Barrier Reef, and Panama.

**The Great Barrier Reef, Australia:** Spanning 2300 kms along the Queensland coast, Great Barrier Reef is vital to the health of Australia's oceans. However, extraction of phosphatic sandstone from many islands, cays and coral reefs have resulted in extensive transformations of some habitats [6]. Historical mining in the Great Barrier Reef has left impacts in the landscape of several islands and cays.

**Guna Yala, Panama:** Increasing stress is being placed on Panamanian reef ecosystems from human activity including coral mining and pollution. Reefs in Panama have faced the problem of mining for coral as a construction material since late 16th century [7]. In order to prevent further decline and maintain the health and biodiversity of these important reef ecosystems, a comprehensive management plan must be developed soon.

### Recommendations to prevent unsustainable coral reef mining

**Education of consumers:** Consumers need to be aware of the impact of coral reef mining. In fact, their choices do make differences.

**Alternative livelihoods:** There should be more opportunities for alternative careers so that local communities do not engage in coral reef mining.

**Ecological reserves:** Marine protected areas should be established as ecological reserves for coral reefs.

#### **Decrease coral product imports:**

The United States is the largest importer of live coral and reef rock, accounting for more than 80% of the live coral trade (more than 400,000 pieces a year) and more than half of the marine aquarium fish sold worldwide [8]. In order to prevent further demolition of the coral reefs, there must be a decrease in U.S. imports of wild coral reef species.

**Management plans required:** Coral reef harvesting should be limited until reaching to a more sustainable level.

**Enforcement of unsustainable activities:** Legal action and enforcement are needed to prevent blasting of coral reefs.

**Regulation of coral trade:** Sustainable use and collection of coral products should be applied for both domestic and international trade.

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# Contacts

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## **Tory A. Miller**

Senior Official Performing the Duties of the  
Commissioner for U.S. Customs and Border  
Protection (CBP)

1300 Pennsylvania Ave. NW  
Washington, DC 20229  
Call: +1 (202)-325-0150.

## **Deb Callister**

Agriculture First Assistant Secretary  
Department of Agriculture, Water and the  
Environment, Heritage, Reef & Wildlife Trade  
Group

Email: [deb.callister@awe.gov.au](mailto:deb.callister@awe.gov.au)  
Call: +61 (02) 6275 9424

## **Emilio Sempris**

Panama's Minister of Environment  
Ancón, Calle Broberg,, Edif. 804, Panama,  
Panama C-0843-00793, PA

Email: [info@bnamericas.com](mailto:info@bnamericas.com)  
Call: +507 (500) 0855

