KM 4 CTI Learning Notes
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ADB Regional Technical Assistance (RETA) 7307:
Regional Cooperation on Knowledge Management, Policy, and Institutional Support to the Coral Triangle Initiative

PES 101. Valuing Coral Reefs

Seeing Beyond the Obvious

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The Solomon Islands has one of the highest biodiversities of corals in the world. Green et. al. (2006) recorded 494 species of which nine are possibly new. Coral reefs support fisheries production, tourism, research, and religious and cultural values. Corals are also harvested for processing of lime for betel nut chewing, curio, and marine aquarium trade.

The way we use (or abuse) our coral reefs is reflective of the value we attach to it. Do we know all the components of value?

Direct uses of corals and coral reefs may either be passive or extractive. Extractive use of corals includes cutting of fragments, removal of corals, or even blasting entire colonies. Wild collection of corals in the Solomons caters to local trade (for betel nut chewing), curio trade (dead corals), and marine aquarium trade (live corals). Corals harvested for export takes place around the Nggela islands in Central province, Marau Sound, and in and around the capital of Honiara (Lal and Kinch 2005).

The total gross export value of the marine aquarium trade, dead corals, and other associates is SI$ 5 million or about US$ 656,000 (Lal and Kinch 2005). Other forms of extraction of corals include coral mining for land fill and various forms of construction.

Is this the REAL value of coral reefs to the Solomons Islands?

Passive uses of coral reefs include support to fisheries, tourism, research, and culture / sociological values. However, passive uses of coral reefs tend to be compromised by extractive activities --- collecting, mining, blasting of reefs result in poor reef cover which results to

DID YOU KNOW?

Prices for live corals have remained fairly constant at a range of SI$2 to SI$4 over the last 20 years.

On the other hand, price in the retail market in the US ranges from US$35 to US$135, at least a hundred times more than what is paid to the villagers for collection. High transport costs mainly account for this price discrepancy.

declines in fish productivity and beauty. Indirect use values of coral reefs are derived from its ecosystem services such as:

- shoreline protection;
- build up of land;
- promoting growth of mangrove and seagrass beds;
- generation of coral sand;
- export of organic production and plankton to pelagic food webs.

Examples of coral reef valuation in the CTI

- Globally, the total net benefit per year from the world's coral reefs amounts to **US$29.8 billion** of which tourism and fisheries jointly account for roughly $ 16 billion while the remainder is accounted for by coastal protection and biodiversity (Cesar, Burke and Pet-Soede 2003).
- The total economic value of coral reefs in Indonesia's Wakatobi National Park in Southeast Sulawesi, Indonesia, was estimated to be **US$308,000 or US $12,100 per sq km²** which includes fisheries, eco-tourism, and indirect benefits of coastal protection.
- In Sorsogon, Philippines, David et al (2010) observed that seawalls constructed where there are breaks in coral reefs are more susceptible to destruction (see photo). Using the cost of constructing a seawall as a proxy for the indirect value of coral reefs to coastal protection, Cruz-Trinidad et al (2011) estimated the total economic value contributed by **200 km²** or coral reefs in the Bolinao-Anda complex in Lingayen Gulf, Philippines, to reach **US$38 million per year** consisting mainly of indirect values to shoreline protection.

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Are you valuing your reefs correctly?

There are methods that can be used to value ecosystem services such as shoreline protection, build up of land, etc. For more information on how to value your coral reefs properly, contact Abbie Trinindad, RETA Team Leader at km4cti@gmail.com.

RETA 7307 supports ongoing CTI efforts via knowledge management in the preparation of a State of the Coral Triangle Report, sustainable financing, and environmental economics and payment of environmental services for the CTI.

www.coraltriangleinitiative.net