



Communicating the Economic and Social Importance of Coral Reefs for Indian Ocean countries

This fact sheet will provide you with information extracted from economic studies

BASICS

Coral reefs are among the most productive ecosystems on the planet. They cover less than 1% of the ocean floor but support 25% of ocean life.



Coral reefs provide beautiful seascapes which allow for a range of recreational activities and improve the attractiveness of the country for international tourism markets.

Coral reefs absorb a huge amount of swell energy from waves, protecting lives, coastal properties and beaches from flooding events and hurricanes.





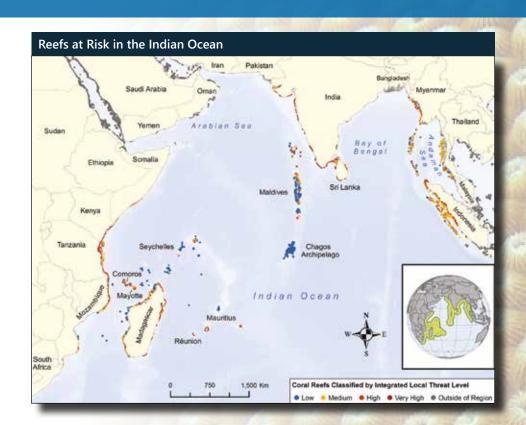
Many fisheries exist only due to the presence of coral reefs, whether as nurseries or adult habitats. This sector provides food and incomes for fishers and associated industries.

More than 65% of reefs in the region are at risk from local threats, with one-third rated at high or very high risk.

Primary threats are man made - unsustainable fishing, land based sources of marine pollution (including sedimentation) and more recently Global Climate Change.

Local solutions exist!!

Developing networks of Marine Protected Areas, implementing sustainable fishing practices (especially protecting herbivores) and improving water quality are local actions that could increase the resilience of coral reefs to global threats.



REGIONAL DATA

Estimates show the **28,000 km2** of reefs in the Indian Ocean provide tangible benefits of at least **US\$2b** annually to the economies of the countries. Tourism benefits represent **70%** of this value with Fisheries representing the remainer.

Almost **3,000 businesses** depend directly or indirectly on coral reef health.

At least 1.5 million persons rely on reef fisheries for their livelihood.

Annually, almost **1.4M visitors** enjoy the beauty of coral reefs (and pay for it).

For some countries, these benefits can represent up to **20%** of their GDP.

The economic benefits from coastal protection are not visible in the GDP but obvious during storms and extreme climate events.



COUNTRY DATA

Below is Indian Ocean economic and social data for the three main ecosystems services provided by coral reefs: Coastal Protection, Fishing, and Tourism.

How to read the table?

Example for Maldives:

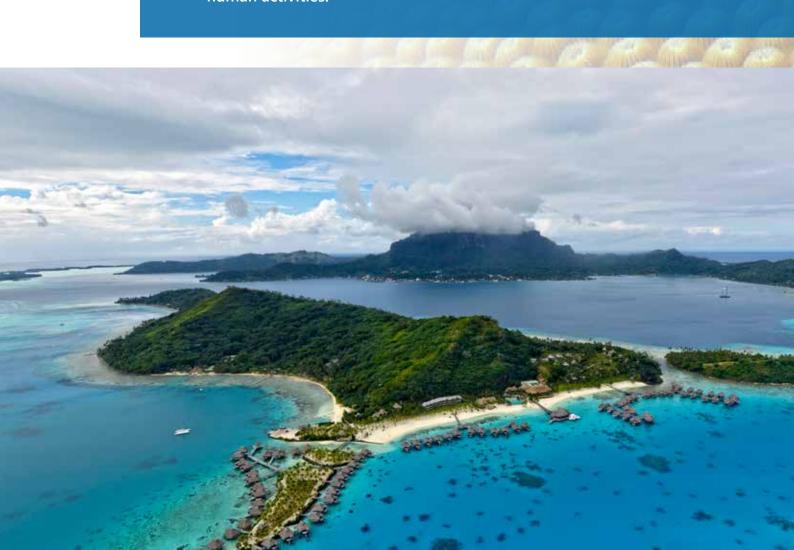
Estimates show the **8920** km² of reefs provide annually, a tangible contribution of **US\$696M** to the GDP of Maldives (19% of the GDP).

30.500 jobs and households and almost **100 businesses** depend directly or indirectly on coral reef health.

At least **35 000 visitors** directly observed the coral reef ecosystems.

Coral reefs contribute annually to more than **US\$1700M** in avoided damages on coastal infrastructures.

11% of the reefs are impacted by high or very high threats levels from human activities.



COUNTRY DATA

Country	Coral Reef Area (km2)	Mangrove Area (km2)	Annual Contribution to GDP	Direct contribution to GDP	Tourism ES	Fishery ES	Total jobs depending on reefs (inc. tourism and fishery)	Tourism Beneficiaries			Coastal Protection ES	Percentage of Reefs Under Threat
			Fishery and Tourism US\$ millions	in %	US\$ millions	US\$ millions		Reef visitors	Blue Tourism Businesses (low estimate)	% of total spending	US\$ millions	Percentag
Bangladesh	<50	5767					230 558		20		65	100%
Comoros	430	26	11	1,79%	11		12 077	5000	30			99%
India	5790	6700	666	0,03%	278	388	963 030	23 000	1 500	0,53%	1 300	61%
Kenya	630	530	146	0,21%	50	95	13 538	34 000	200	2,74%		91%
Madagascar	2230	3403	34	0,34%	30	4	62 086	10 000	60	6,05%		87%
Maldives	8920		696	19,38%	651	45	30 563	430 000	110	59,53%	1 753	11%
Mauritius	870		187	1,54%	187		7 367	127 000	80	13,73%		81%
Mayotte	570	10	18	3,29%	7	11	920	20 000	40		13	100%
Mozambique	1 860	925	41	0,37%	41		50 446	381 000	40	11,18%	27	76%
Seychelles	1690	29	51	3,37%	44	7	2 135	32 000	45	17,68%		17%
Somalia	710	910	3	0,04%		3	3 694					95%
Sri Lanka	680	89	62	0,08%	49	13	23 527	17 000	370	2,87%	32	86%
Reunion	<50		44	0,23%	33	11	1 000	230 000	200		14	100%
Tanzania	3 580	1155	79	0,17%	79		109 749	49 000	320	6,70%		99%
Indian Ocean	27960	19544	2 037		1 460	576	1 510 690	1 353 000	2 965		3204	65%

- The values are obtained from peer-reviewed, gray literature, and online sources.
- All references are available on www.icriforum.org
 Values have been harmonized and dollar values are presented in \$U.S. 2017.

POINTS TO NOTE

- In all scenarios, benefits of Marine Protected Area implementation outweigh the costs ranging between 3:1 and 20:1.
- Healthy reefs in the region could support a maximum sustained yield of 4 tons
 of fish per km2 per year. Yields from degraded reefs were estimated as low as
 0.7 per km2 per year.
- When coral reefs suffered bleaching event, the countries also suffered direct losses of US\$ millions in their tourism sector.
- Healthy coral populations may recover within 15 years from severe bleaching events, with perhaps twice as long being necessary in impacted sites.
- Around 330 MPAs are established in this region, covering 19 percent of the coral reefs. Effectiveness assessments concluded that three-quarters were considered ineffective or partially effective



 $Funded \ with \ the \ support \ of \ the \ Government \ of \ Sweden \ and \ the \ Fondation \ pour \ la \ Recherche \ et \ la \ Biodiversit\'e \ (FRB)$















