

THE PHILIPPINES



CORAL TRIANGLE
INITIATIVE
ON CORAL REEFS, FISHERIES
AND FOOD SECURITY

SOM13

SENIOR OFFICIALS' MEETING
MANILA, 29 - 30 NOVEMBER 2017

Wildlife Conservation Society

CTI-CFF Overview

Ken Kassem, WCS Indonesia
Marine Director



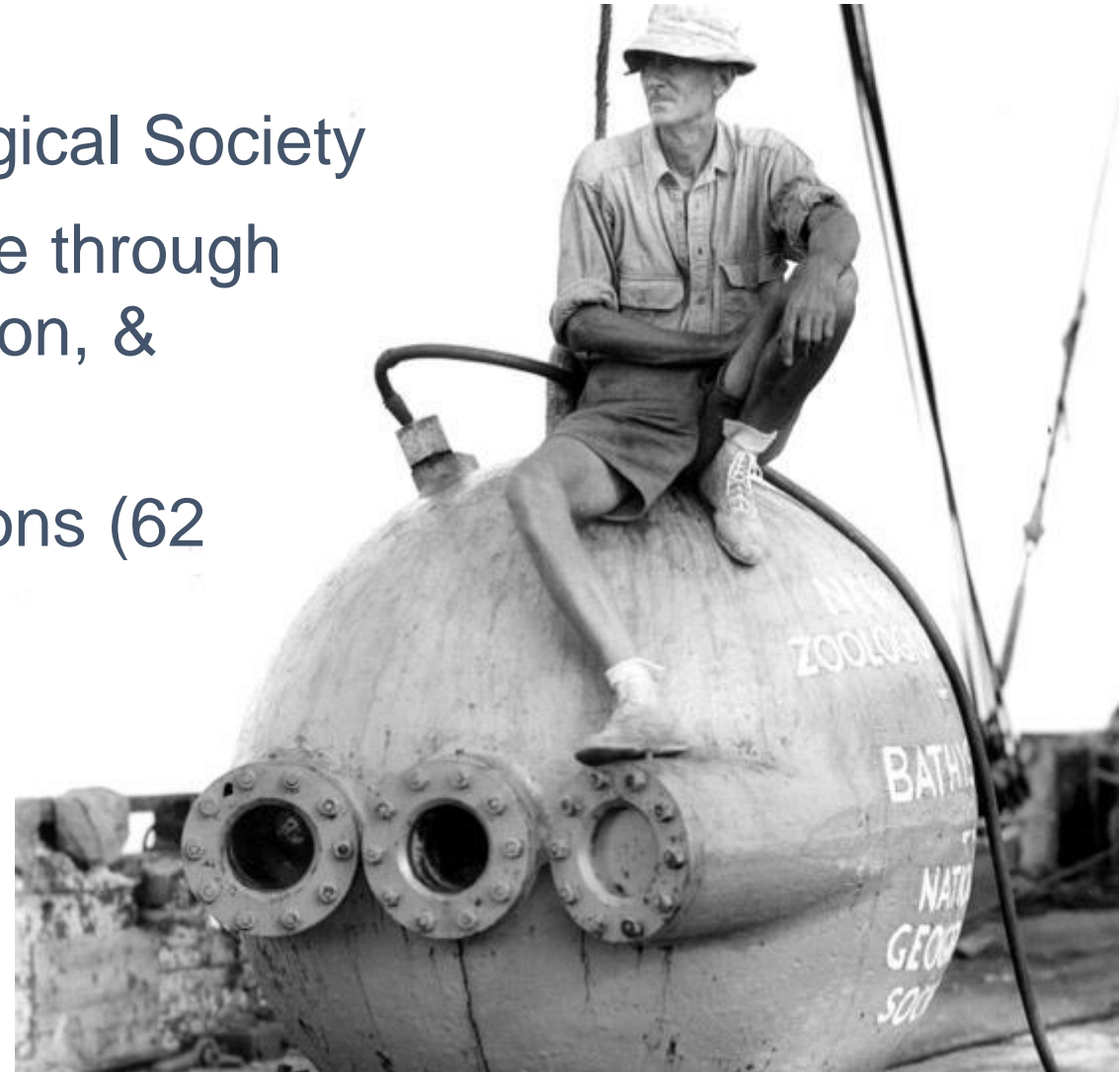
Outline

1. History of WCS
2. Science for decision making
3. Marine protected areas
4. Small-scale fisheries and EAFM
5. Species conservation
6. Climate change adaptation
7. WCS in the CTI-CFF



Wildlife Conservation Society (WCS)

- Founded in 1895 as New York Zoological Society
- Saves wildlife & wild places worldwide through science, conservation action, education, & inspiring people to value nature
- 500 projects in 15 global priority regions (62 countries)



William Beebe -
1,000 m dive in
Bermuda 1934



Mission

WCS saves wildlife and wild places worldwide through science, conservation action, education, and inspiring people to value nature.

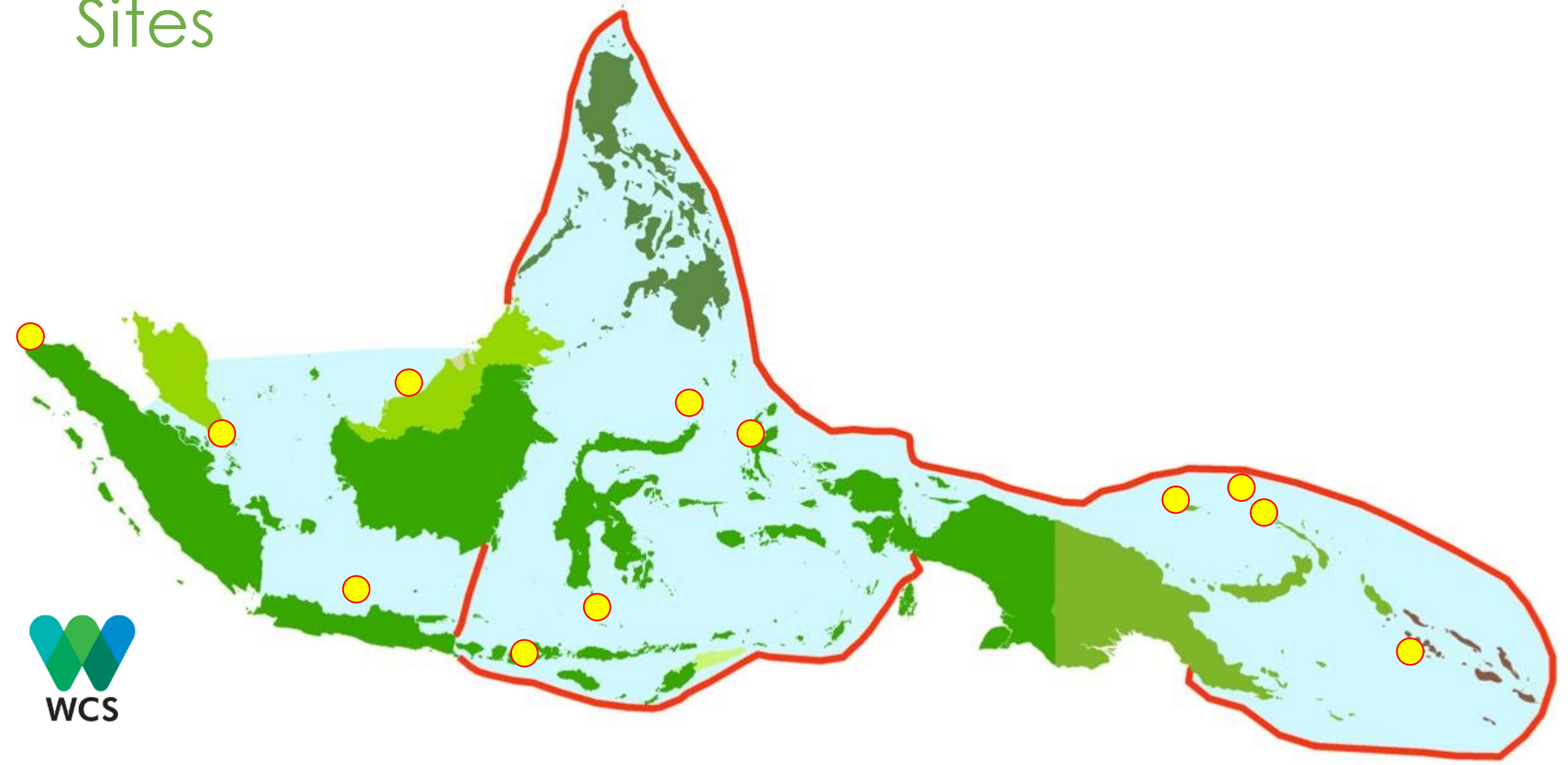
Vision

WCS envisions a world where wildlife thrives in healthy lands and seas, valued by societies that embrace and benefit from the diversity and integrity of life on earth.

WCS Global Marine Focal Geographies



CTI Marine Focal Geographies and Project Sites



Key Contacts

Global marine program

- Executive Director, Jason Patlis
- Associate Director, Dr. Elizabeth Matthews

Southeast Asia Archipelago

- Regional Director, Dr. Ross Sinclair
- Malaysia Country Director, Dr. Melvin Gumal
- Indonesia Marine Director, Ken Kassem

Melanesia

- Regional Director, Dr. Stacy Jupiter
- PNG Country Director, Dr. Ambroise Brenier

WCS Science & Socio-Ecological Monitoring



- Science for decision making
- Applied research
 - Reef ecology
 - Fisheries
 - Species
 - Climate change, etc.
- Monitoring of impacts
 - Ecological
 - Socio-economic



WCS Science

To assess the impacts of our conservation work, WCS coral reef programs monitor a common set of indicators based on a social-ecological systems framework

- productivity of reef fish communities
- essential coral habitat
- 50+ social indicators, including the dependence of human communities on coral reef livelihoods, and perceptions of management impact on wellbeing



A Global Social-Ecological Systems Monitoring Framework for Coastal Fisheries Management

A Practical Monitoring Handbook

CORAL REEF DATA COLLECTION AND VISUALIZATION

An open source data platform for science and conservation

COMING SOON



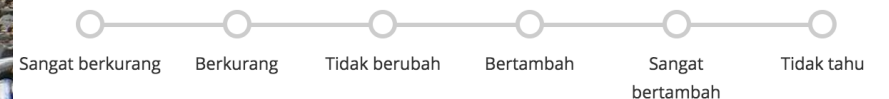
Jumlah laki-laki dalam rumah tangga

S5. Jika hiu dan pari lebih susah ditangkap atau dilarang untuk ditangkap, apa yang akan Anda lakukan?

17. Biasanya seberapa sering keluarga Anda makan ikan hasil tangkapan Anda atau nelayan di desa Anda?

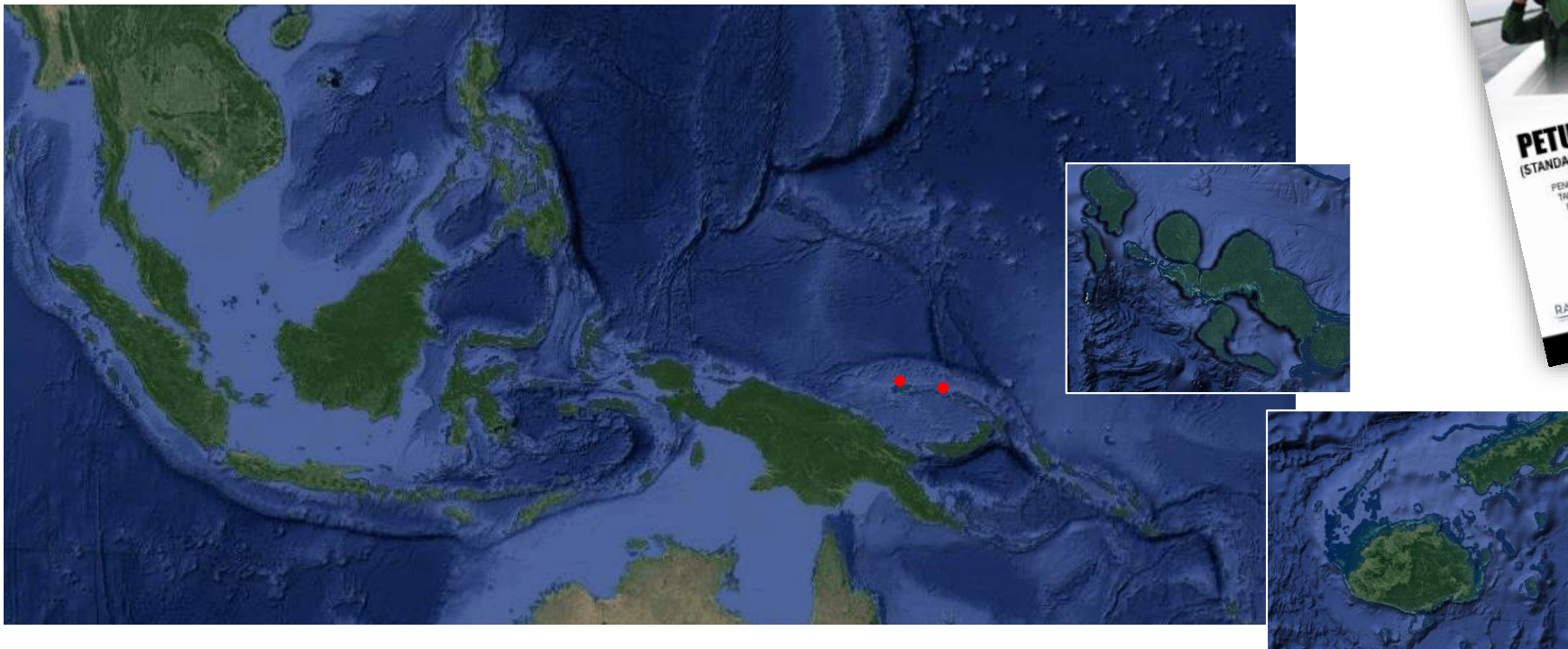


18a. Menurut Anda apakah jumlah ikan di laut berubah dalam 5 tahun terakhir?



WCS Science

- Technical reports and handbooks: 57 (2010 – 2016)
- Journal articles and book chapters: 69
- Monitoring Transect from Aceh to Solomon Islands (and Fiji)



EAFM & other marine resources fully applied

Indonesia

- Small-scale fisheries in Karimunjawa NP, West Nusa Tenggara, North Maluku.
- Small-scale fisheries planned for North Sulawesi and Aceh planned
- Small-scale coral reef fisheries management plan in West Nusa Tenggara (Oct 2017)



Table 1. Size limits of 12 species grouper and snapper had been agreed in Saleh Bay

(M: natural mortality, F: fishing mortality, E: exploitation rate, L_m : length maturity, $L_{c_{opt}}$: optimum of length at first capture, SPR: spawning potential ratio, L: length, W: weight)

No.	Species	Mortality			L_m (cm)	$L_{c_{opt}}$ (cm)	SPR	Size limit	
		M (/year)	F (/year)	E				L (cm)	W (gram)
1	<i>Plectropomus leopardus</i>	0.19	0.21	0.54	38.69	40.39	0.22	31.00	500
2	<i>Plectropomus maculatus</i>	0.15	0.16	0.51	41	42.33	0.24	31.30	500
3	<i>Plectropomus oligacanthus</i>	0.2	0.18	0.47	40.5	41.26	0.26	31.50	500
4	<i>Plectropomus areolatus</i>	0.19	0.31	0.62	40.33	40.26	0.12	31.25	500
5	<i>Epinephelus coioides</i>	0.19	0.23	0.55	56.92	57.59	0.32	30.30	500
6	<i>Cephalopolis miniata</i>	0.42	0.8	0.66	35.02	34.84	0.05	26.55	300
7	<i>Cephalopolis sonnerati</i>	0.31	0.39	0.56	30.57	31.12	0.23	27.50	500
8	<i>Variola albimarginata</i>	0.62	1.1	0.64	30.84	30.02	0.2	23.10	300
9	<i>Variola louti</i>	0.43	0.22	0.34	32.28	30.26	0.38	31.15	500
10	<i>Epinephelus fuscoguttatus</i>	0.14	0.27	0.66	59.68	70.03	0.05	31.61	500
11	<i>Cromileptes altivelis</i>	0.3	0.29	0.49	30.7	30.64	0.24	24.55	500
12	<i>Lutjanus malabaricus</i>	0.3	0.33	0.52	45.37	47.73	0.38	31.25	500

EAFM & other marine resources fully applied

Papua New Guinea

- Developing EAFM plans with local communities.
- Co-development of provincial fisheries policy with New Ireland Government.
- Inshore, sub-surface FADs in New Ireland and Manus to enable communities to switch to less vulnerable catch and potentially to more marketable, pelagic species.



EAFM & other marine
resources fully applied

Solomon Islands

- Support to communities in Western Province to co-develop monitoring indicators and design EAFM plans within the context of CBRM



MPAs established and effectively managed

Indonesia

- Improve MPA management in 1,000,000 ha
- Expand MPAs by 1,000,000 ha in:
 - West Nusa Tenggara,
 - North Sulawesi,
 - North Maluku,
 - Aceh



MPAs established and effectively managed

Papua New Guinea

- Develop zoning within coastal waters (<3 nm) in New Ireland Province (500,000 ha)
- Establishment and implementation of effective, multi-use zoned MPAs that are linked to networks of locally-managed marine areas (LMMAs)
- Consensus building around legal and institutional pathways to operationalize sustainable financing of MPAs and LMMAs



MPAs established and effectively managed

Solomon islands

- Funding proposal to develop zoned MMA in the Kavachi Seascape, Western Province
- Develop draft zoning for Temotu Province



The WCS MPA Fund

Primary Goal:

- Create & expand MPAs so countries to reach/exceed 10% target

Secondary Goal:

- Provide resources to strengthen MPAs through field operations & governance



The WCS MPA Fund

- MPA Fund impact
 - 19 Countries
 - 1 million km² new protections
- MPA Fund investment
 - \$15 million (+\$10 m leveraged)
- mpafund.wcs.org

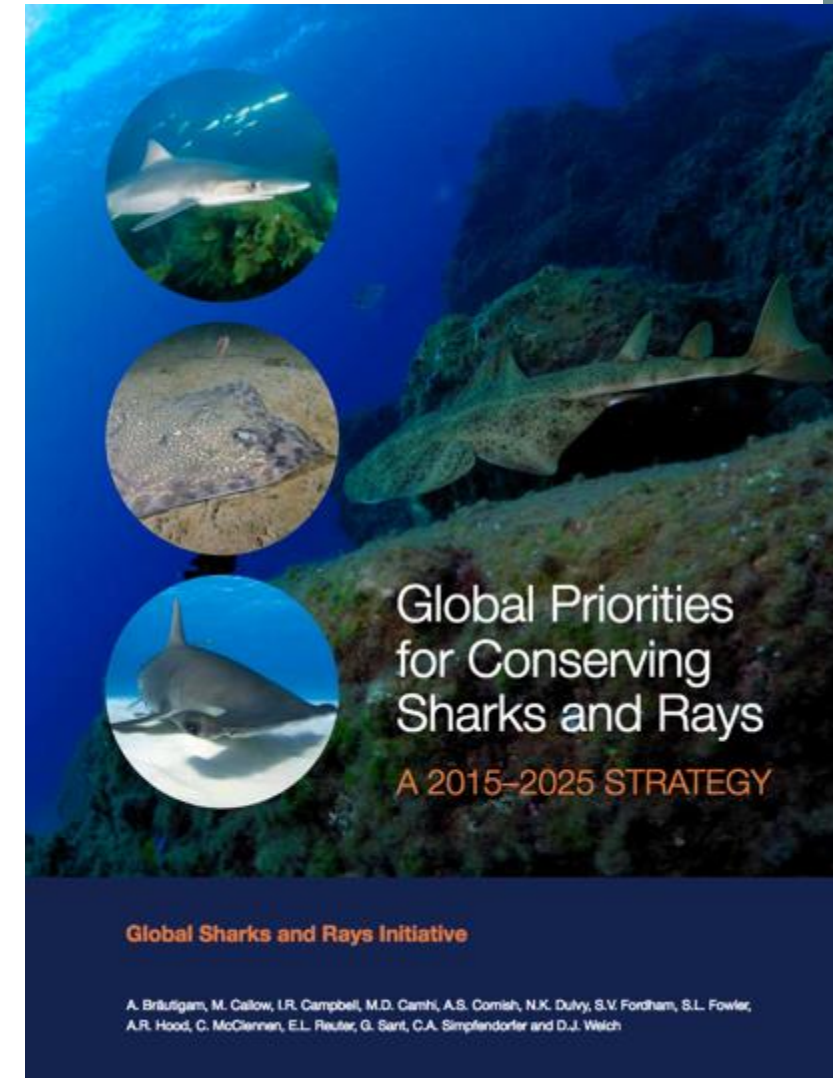


Threatened Species Status Improving

Sharks and Rays

Indonesia

- Support for CITES implementation
- Catch landing data collection
- Supply chain monitoring through monitoring of export sites
- DNA fingerprinting, illegal wildlife trade



MAY 27, 2016
Maluku, Indonesia



Threatened Species Status Improving

Sharks and Rays

Malaysia

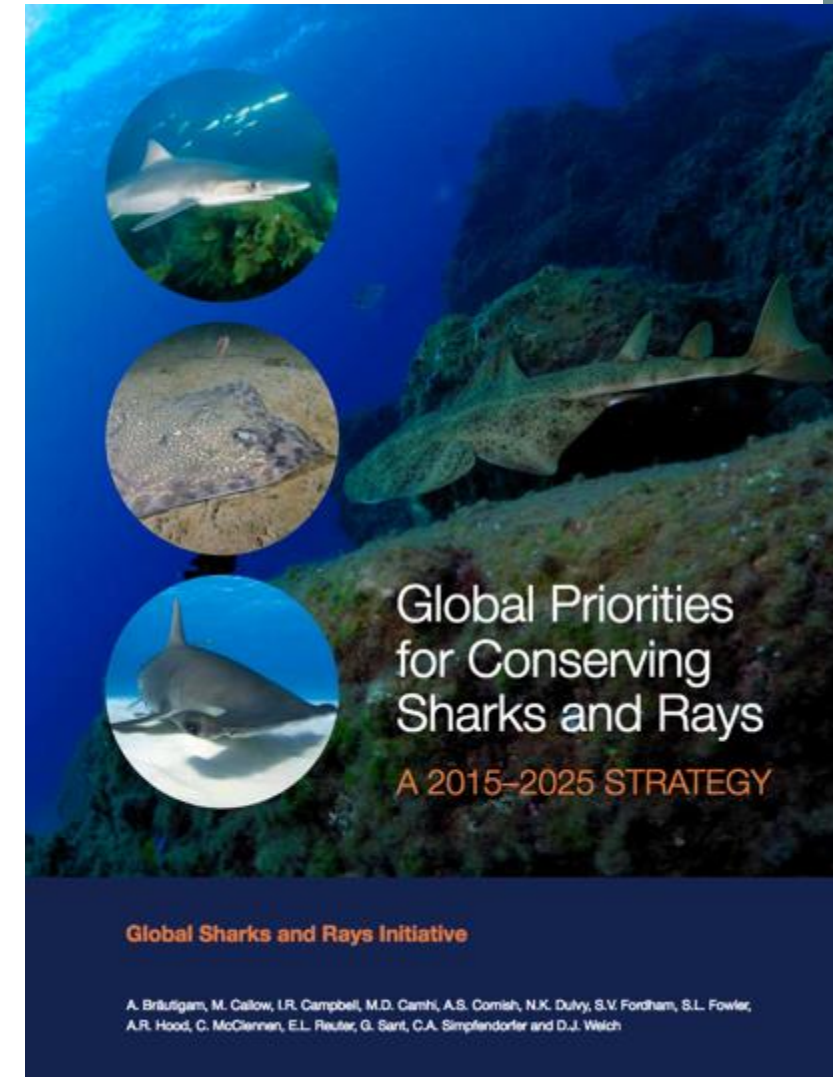
- Market surveys in Sarawak, awareness

Papua New Guinea

- BRUV deployment to estimate stocks

Singapore

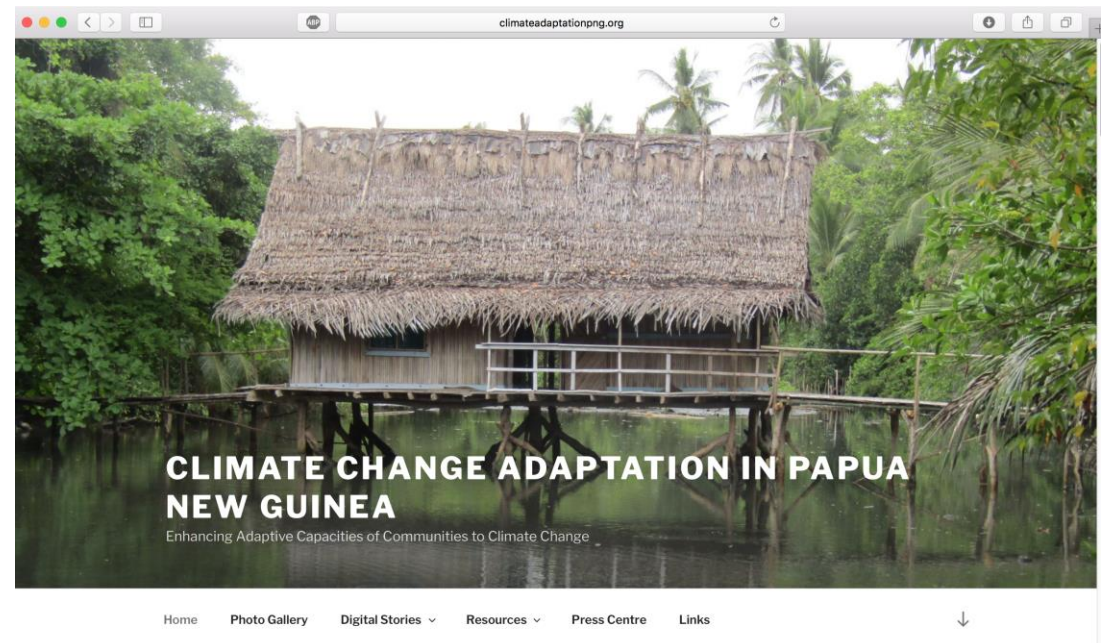
- Trade & supply chain analysis & monitoring



Climate Change Adaptation Measures Achieved

Papua New Guinea, Solomon Islands

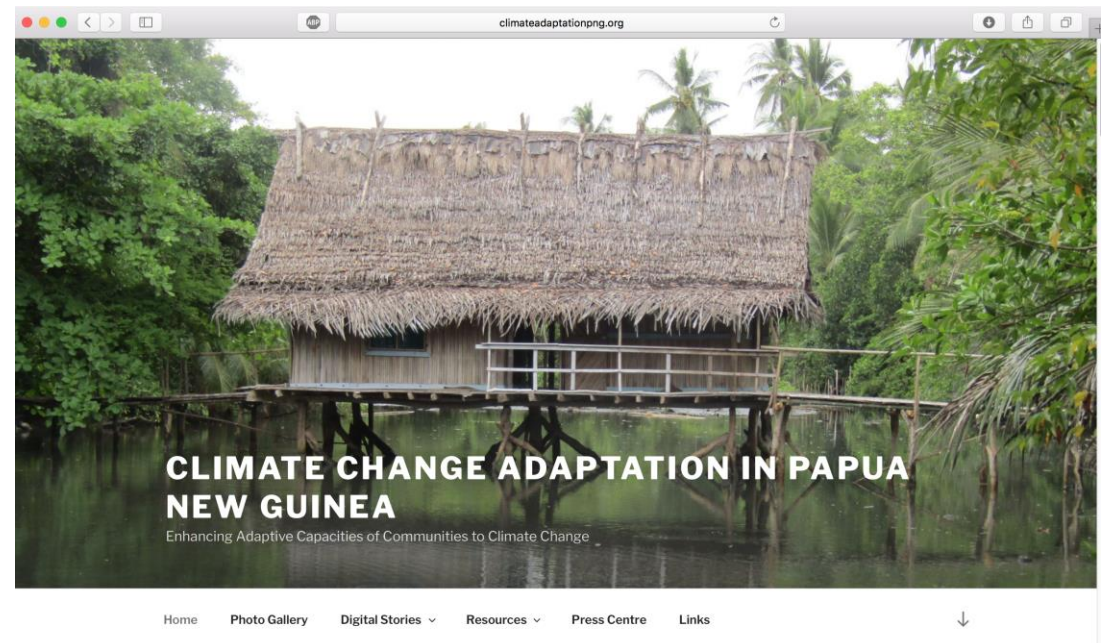
- Facilitate development of climate change adaptation plans to boost resilience against threats from floods, droughts, sea level rise, and tropical cyclones



Climate Change Adaptation Measures Achieved

Papua New Guinea

- Established a Climate Change Education Resource Centre in Manus and New Ireland (PNG)
- <http://www.climateadaptationpng.org>
- Community mapping at islands in Manus to identify threats from sea level rise under IPCC scenarios for village planning
- Diversify crop production to more diverse and salt tolerant varieties



As the global 2016 El Niño strengthened, WCS scientists led a global collaboration to document the impacts of bleaching using a common, rapid survey method.

By the end of the El Niño

- Monitoring scientists from 14 organizations had conducted 300+ surveys
- 70,000+ coral colonies observed for bleaching
- 36,000+ bleached coral colonies in 68 out of 69 observed genera

Our objective is to support national monitoring and policy to guide conservation priorities after a major coral bleaching and mortality event



After El Niño, a Global Strategy to Save Corals

Posted by [Wildlife Conservation Society](#) in [Ocean Views](#) on June 22, 2016



Areas of potential support

- CTI-CFF Scientific Advisory Group
- Technical expertise to:
 - Threatened Species WG – sharks and rays, IWT
 - MPA WG – enforcement, monitoring
 - Monitoring and Evaluation WG – social-ecological frameworks
 - EAFM WG – small scale, coastal fisheries

TERIMA KASIH - MARAMING SALAMAT - TANK IU
OBRIGADO- TAGIO TUMAS

