



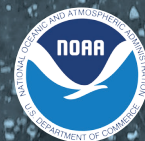
Global SocMon Technical Report No. 2

Global SocMon Report 2022:
Insights from more than 20 years
of socioeconomic assessments,
challenges, and opportunities

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Global Socioeconomic Monitoring for Coastal Management (SocMon) 2022



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SEM-Pasifika Team

Foreword

Coral reefs are among the most productive and biologically diverse ecosystems on Earth, but face a variety of complex pressures, such as coral bleaching, ocean acidification, coral disease, and the undesirable impacts from human activities. Despite the recognition of anthropogenic impacts on coral reefs, a vast majority of research and monitoring tends to focus on the biophysical rather than the human dimensions of reef ecosystems, which can limit our understanding of social relationships with these environments as well as potential solutions for reef recovery. Biological and physical data are an essential component, yet management questions cannot be adequately addressed with this information alone. The effectiveness and success of management strategies or mitigation actions will ultimately depend on society's values and preferences.

In practice, coastal resources are managed for society. People are an integral participant in the ecosystem. Their actions may influence pressures upon the ecosystem, but they are also the benefactors of the services produced by that ecosystem. These ecosystem services are the benefits created by particular sets of ecological conditions and processes that are explicitly linked to social value and human wellbeing. Millions of people around the world depend on coral reefs for a variety of ecosystem services such as food production, jobs and income, tourism, recreation, protection from storm damage, and cultural value. All of these services are things that people care about – the “so what”, “who cares”, and “why coral reefs are important”.

Over 20 years ago, the International Coral Reef Initiative's (ICRI) Global Coral Reef Monitoring Network (GCRMN) established the Global Socioeconomic Monitoring Initiative for Coastal Management (SocMon) for the purpose of advancing the global and regional understanding of the human dimensions of coral reef ecosystems. This socioeconomic monitoring is meant to complement coral reef biophysical monitoring for a holistic integrated approach to addressing GCRMN's main goals (GCRMN 2019). SocMon provides critical information on how people use and depend on coral reefs, and recommends effective ways we can mitigate negative impacts while promoting positive benefits. Since its inception, SocMon has excelled in expanding socioeconomic monitoring across the world's tropical regions

– providing social science training, developing products and tools for monitoring and management, and involving local communities to address issues throughout the Caribbean, Central America, Brazil, Pacific Islands, South Asia, Southeast Asia, and Western Indian Ocean.

This global report provides a summary of socioeconomic assessments conducted across the regions and the types of data collected between 1998 and 2020. Insights on lessons learned, challenges, opportunities, and pathways forward are also discussed.

As the Global Coordinator of SocMon, respectfully, I call upon the international coral reef community for your partnership and support to continue the Global SocMon Initiative, as social and economic monitoring is essential for successful conservation and effective management. Without socioeconomic data, we lack critical information on the root of environmental problems and underlying reasons why trends in coral reef conditions are occurring. Without socioeconomic data, we cannot fully address the threats to coral reefs or find effective solutions that are sustainable long-term. Without socioeconomic data, we cannot help communities who depend on coral reef ecosystems but are vulnerable to climate change impacts. We will not know if we are representing or including all the voices and stakeholders in planning and decision-making processes. We will not know if we are providing adequate, equitable access to coastal-marine resources and services. If we are not doing any of these things, then we will not be



South Asia : Cast netting at Agatti island, Lakshadweep

V Hoorn

providing the “best available science” or know how effective management really is, and then I believe we are doing a disservice to these complex ecosystems and society at large.

SocMon needs support and funding to maintain socio-economic monitoring in the long-term and to continue the admirable work that has been done over the past two decades. A stronger partnership within GCRMN is needed where SocMon and social scientists are included throughout all planning, discussions, and reporting. Working together in a holistic approach that includes human dimensions is the only way to fully understand the complex interactions between people and coral reef ecosystems, and how we can sustain the ecosystem services and benefits that people rely on. Over the next several years, GCRMN will strive to better integrate socioeconomic monitoring with

biophysical monitoring. I look forward to strengthening those links and being a part of the collective action to build reef resilience.

Mary Allen, Ph.D.

Global Coordinator of SocMon

Socioeconomics Coordinator of NOAA Coral Reef Conservation Program and U.S. National Coral Reef Monitoring Program Socioeconomics Component

Executive Summary

The Global Socioeconomic Monitoring for Coastal Management (SocMon) initiative is part of the Global Coral Reef Monitoring Network (GCRMN) established in 1994 to respond to the call for action by the International Coral Reef Initiative (ICRI) to increase research and monitoring of coral reefs to provide the data needed to inform policy and decision-making. The initiative is implemented at the global and regional levels with the goal of establishing socioeconomic coastal and marine monitoring programs globally at the site level. SocMon is a globally networked, regionally adapted, practical methodology of socioeconomic monitoring for coastal management. Globally, seven regions have been successfully conducting SocMon for over two decades - the Caribbean, Central America, Brazil, South Asia, Southeast Asia, Western Indian Ocean and the Pacific Islands.

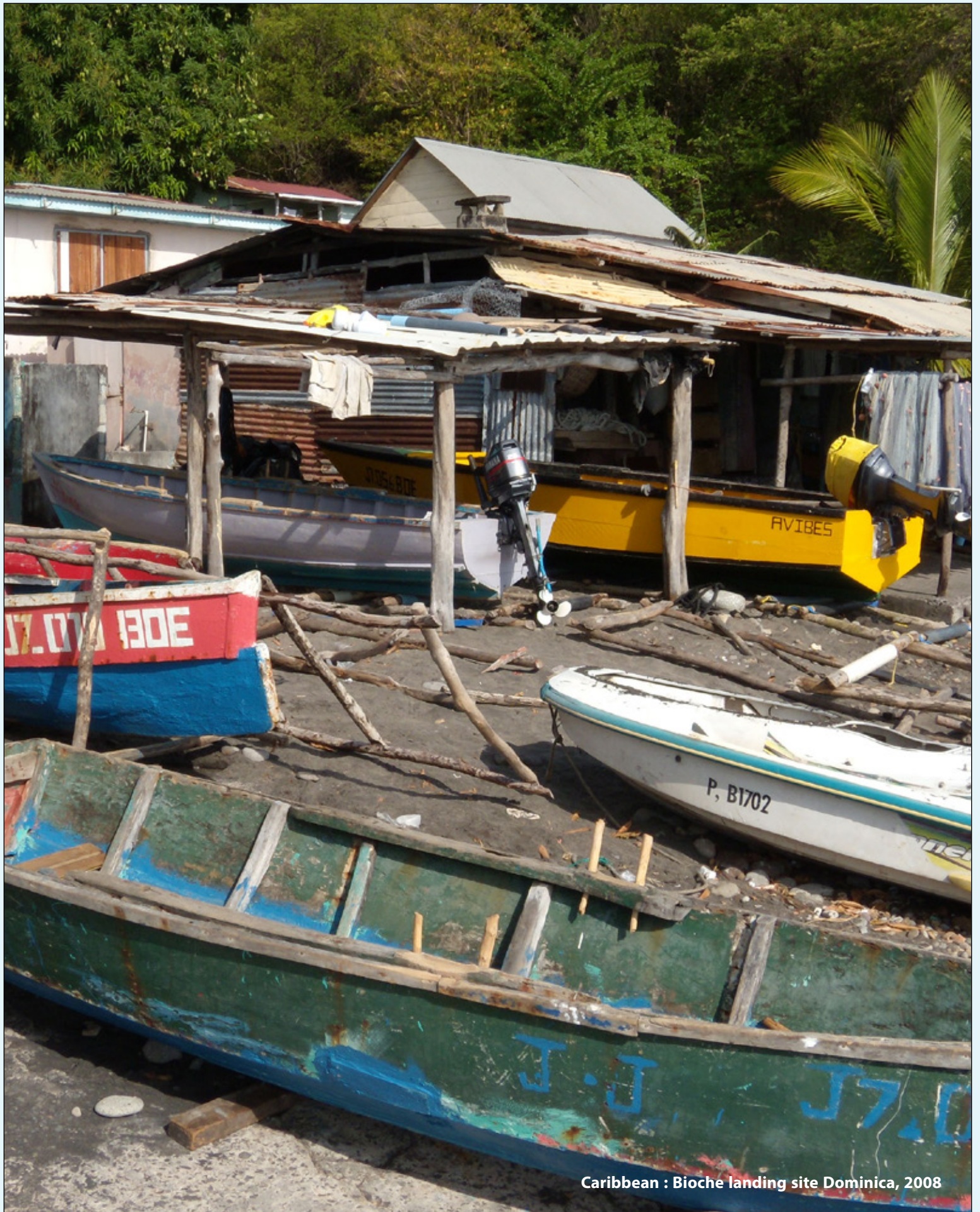
Between 1998 and 2020, Global SocMon implemented 139 socioeconomic assessments across 42 countries, trained just under 700 coastal and marine management practitioners, government entities, resource users, civil society and others, and provided possibly thousands of coordinator hours of technical expertise and guidance. The main objectives for site assessment included those related to human use of coral reef resources, public perception of management, natural resource dependence, perceived resource condition, and public awareness. Assessment objectives have been successfully providing socioeconomic baseline data useful for measuring future changes.

The main data collecting methods used for most site assessments include household surveys, key informant interviews, and focus group discussions with most assessment data collected by surveys. Approximately 21,000 household surveys have been utilized to collect five main types of information on SocMon variables related to perceptions of resource conditions, household activities, perceived threats, compliance, and awareness of rules and regulations.

Close to US\$ 800,000 of funding or US\$ 1mil with matching funds equating to about US\$45,000 per year or an average of about US\$6,500 per region annually has been invested in socioeconomic monitoring globally from 1998-2020. However, the total funding secured and invested in capacity building and socioeconomic assessments has been inadequate and is the main reason for the lack of sustained monitoring across SocMon regions.

Although Global SocMon has a long history, it is not without its challenges. An internal evaluation of the initiative by regional SocMon coordinators based on their experiences indicated a number of issues that need to be overcome to ensure its success and sustainability. Committed SocMon coordinators and practitioners, the utility of SocMon data for local management, the growing recognition of the value of human dimensions to coastal management, and the complementarity of the SocMon approach to other human-related tools for improving coastal management are key opportunities or enablers that will assist the initiative in achieving its goals and objectives.

The need for greater understanding of the complex interactions between social systems and coastal and marine ecosystems is critical to evidence-based decision-making. This should make socioeconomic monitoring initiatives such as SocMon indispensable to local, national and regional coastal and marine monitoring programs worldwide. Global SocMon has the potential to contribute significantly to comprehensive, evidence-based coastal and marine management through a number of priority strategic actions that include capacity building, supporting policy and decision-making, financial sustainability, approach enhancement, dissemination of information, stakeholder engagement, and partnerships and institutional networking. Global SocMon will invest in these focal areas over the next five years.



Caribbean : Bioche landing site Dominica, 2008

M. Pena

1. Introduction

1.1. Overview of the Global SocMon Initiative

The Global Socioeconomic Monitoring Initiative (SocMon) has been in existence since 1997. This Initiative is part of the Global Coral Reef Monitoring Network (GCRMN), which was established in 1994 to respond to the call for action by the International Coral Reef Initiative (ICRI) to increase research and monitoring of coral reefs to provide the data needed to inform policy and decision-making. SocMon focuses primarily on coastal and island communities and works through a network of stakeholders with the primary goal of supporting management and conservation of coral reefs. Since 1998, socioeconomic monitoring activities in the world's coral reef areas have been expanding through SocMon. **Figure 1** highlights the 2000-2015 timeline of SocMon's history considered to be an important foundational period for the initiative that gave rise to the development of the first Socioeconomic Manual in 2000 (Bunce et al. 2000); the solidification of the SocMon network in 2002 and the establishment of its accompanying regional nodes from 2003 through to 2015; production of training resources, specifically region-specific guidelines; implementation of numerous capacity building events and monitoring assessments; and strategic planning.

Seven regions around the world have been conducting socioeconomic monitoring assessments through the Global SocMon Initiative - the Caribbean, Central America, Brazil, Western Indian Ocean, South Asia,

Southeast Asia, and Pacific Islands. SocMon attempts to fill a critical need by advancing the global and regional understanding of human interactions with and dependence on coastal resources. In the Pacific region, SocMon is known as SEM-Pasifika. For the purpose of this document we will refer to all activities, including SEM-Pasifika, as SocMon. See <https://icriforum.org/socmon/> for more information.

The SocMon Initiative relies on a network of volunteer individuals and institutions to conduct training, assessment, and monitoring. These volunteer regional coordinators have agreed to participate in facilitating training, data collection and other activities in addition to their regular roles in their respective institutions. Our regional coordinators are primarily affiliated with academic institutions, research centers and non-governmental agencies.

The National Oceanic and Atmospheric Administration's Coral Reef Conservation Program (NOAA CRCP) has been instrumental in supporting the work of SocMon worldwide through technical support provided by a global SocMon coordinator, and funding through NOAA CRCP international grants for socioeconomic monitoring initiated in 2003.

SocMon HISTORY

2000

Socioeconomic Manual for Coral Reef Management:
Step-by-step guidelines on how to conduct socioeconomic assessments published

2002

Global Socioeconomic Monitoring Initiative for Coastal Management (SocMon) formed: Serves as the socioeconomic monitoring arm of GCRMN

2003

SocMon Regional Guidelines for the Caribbean and Southeast Asia published

2003-2006

Regional and national training workshops
> 200 coral reef managers SocMon capacity increased

Regional SocMon Nodes established
- CERMES, Barbados: English-speaking Caribbean (2K3)
- University of Zamorano, Honduras: Spanish-speaking Caribbean (2K5)

Global site monitoring underway
Initiation of NOAA International Coral Grants for Socioeconomic Monitoring

2006-2006

SocMon Regional Guidelines published for
Western Indian Ocean (2K6); SEMPasifika and South Asia (2K8)

Remaining Regional SocMon Nodes established
CORDIO EA (WIO), CARESS (SA), Palawan State University (SEA), & SPREP/PIMPAC (PI)

Global site
monitoring
continues

2014

SocMon/SEM-Pasifika Strategic Planning meeting: 2015-2019 plan developed

2015

Brazil SocMon node established



Figure 1: 2000-2015 foundational period of the Global SocMon initiative

1.2. Strategic direction of SocMon

The strategic direction of the Global SocMon Initiative has been well defined through two successive strategic planning efforts (for 2015-2019 and 2022-2026) to ensure the success and sustainability of the initiative (Edwards 2014; SocMon 2022). Strategic planning has been recognized as the means towards which the initiative's goals and objectives will be realized and is now firmly rooted into the initiative's organizational culture. Moving forward over the next five years, the initiative will be guided by its vision and mission (**Figure 2**), strategic goals, accompanying objectives and performance indicators (SocMon 2022).

The 2022-2026 SocMon strategic plan provides five main goals (broad long-term aims) for the global initiative and are further defined according to specific strategic objectives (specific measurable achievements) and performance indicators (for measuring the achievement of the objectives). The goals as defined by their strategic focus, purpose statement and rationale are presented in **Table 1** for brevity. Detailed information on the strategic objectives, performance indicators and strategic actions may be found in the strategic plan (SocMon 2022).

SocMon VISION and MISSION 2022-2026

Vision

SocMon helps coastal stakeholders better understand and incorporate the socioeconomic context into coastal management programs through global, national, regional and local partners to facilitate participatory socioeconomic monitoring for the benefit of local communities and relevant stakeholders

Mission

SocMon is a globally respected approach that integrates socioeconomic monitoring in coastal management for better community well-being and ecological health



Figure 2: 2022-2026 Global SocMon mission and vision statements.

Table 1: 2022-2026 SocMon strategic goals

Goal	Purpose statement	Rationale
A: Capacity Building	To build and sustain capacity for socioeconomic monitoring to maximize its benefits in coastal communities, management, and conservation of natural resources.	Capacity Building addresses the primary mission of SocMon to continue working with local partners in improving participatory community-based social science monitoring
B: Integration for Decision-making	To integrate social and biophysical monitoring into informed decision-making and coastal resource management.	Integration for Decision-making re-emphasizes that effective coastal resource management is only possible if biophysical and social science disciplines work together at the inception of any assessment or monitoring program. This involves combining complementary research questions in order to solve management and policy needs
C: Funding	To secure financial support for SocMon global and regional efforts.	Funding is a key component to any successful monitoring initiative. Limited or inadequate funding has been a major reason for a lack of or unsustainable monitoring. Funding is required to implement SocMon assessment, training and capacity building activities
D: Approach Enhancement	To incorporate new tools and approaches to improve socioeconomic monitoring and assessments and increase the applicability of SocMon to emerging coastal and marine issues.	Approach Enhancement supports the vision statement. Improved and new approaches and tools are required to respond to emerging opportunities and threats in marine and coastal areas. The development of improved SocMon monitoring tools and techniques can enhance monitoring and better respond to management needs.
E: Informing and Influencing	To inform and influence stakeholders and policymakers to use SocMon information for holistic decision-making, and to communicate SocMon information to support increased awareness, holistic decision-making, and policy development	Informing and Influencing fulfills both the vision and mission of the initiative as a globally respected approach applied to holistic decision-making and policy development. This requires further developing the SocMon brand for uptake and an adaptable, multifaceted and cutting-edge communication approach.

1.2. Strategic direction of SocMon *continued*

Based on the strategic focus of the Global SocMon initiative, goals and objectives for site assessments are usually tailored to each site's needs and have focused on a variety of socioeconomic aspects of coastal communities and coastal management sites including :

Baseline data gathering on coastal communities against which to measure changes

Informing fisheries and Marine Protected Area (MPA) management plans

Developing socioeconomic profiles for fisheries

Promoting the use of socioeconomic data in fisheries management

Assessment of management effectiveness of MPAs to inform and adapt management

Determining the adaptive capacity of coastal communities to climate changes

Using socioeconomic data to compliment biophysical monitoring

Enhancing management capacity of stakeholders

1.3. About this report

This report builds on the first Global SocMon report titled, "Socioeconomic conditions along the world's tropical coasts: 2008" (Loper et al. 2008) and aims to provide the reader with a summary of the socioeconomic work conducted with coastal and marine communities globally, the types of data and information being collected, and insight on lessons learned. Section 1 provides the contextual background to the initiative. In Section 2, a synthesis of the full complement of SocMon assessments conducted over a 22-year period is presented. Sections 3 and 4 are introspective and highlight the results of a survey administered to regional SocMon coordinators to gather their perspectives on and experiences with the initiative in terms of challenges and opportunities and the future for the initiative.



Caribbean : GCRMN training Jamaica 2016

M. Pena

2. Summary of socioeconomic assessments and training: 1998-2020

One of the main aims of this report is to demonstrate the work of the Global SocMon initiative. This has included the implementation of over 100 socioeconomic assessments, the training of hundreds of coastal and marine management practitioners, government entities, resource users, civil society and others, and the provision of possibly thousands of coordinator hours of technical expertise and guidance. In this section, we provide a synthesis of the socioeconomic assessments undertaken from as early as 1998 when the initiative was developed through to 2020.

Since the mid-2000s, an Excel database of SocMon assessments has been compiled and updated continuously for monitoring and evaluation purposes, and for ease of access to the global dataset. The database was created by the SocMon Caribbean node with input from the other regional nodes. It is currently managed by the SocMon Caribbean node. Database entries comprise the assessment site(s), country locations, SocMon region, year of assessment, project name, project objectives, key variables assessed, sample sizes, funding source, funding amounts and number of trainees (if applicable). Prior to a content

analysis of the database, SocMon regional coordinators were asked to verify the accuracy of database entries for the assessments relevant to their region and complete any information gaps. Subsequent to validation, the database was analyzed primarily through the use of descriptive statistics to provide a summary of socioeconomic assessments conducted globally over the history of the initiative. This is the first time the complement of SocMon assessments have been synthesized for sharing.



Southeast Asia : FGD Climate Change day

Palawan State University SocMon Team

2.1. Distribution of assessments by site, country and region

There were 139 recorded socioeconomic assessments conducted across 42 countries (Figure 3 shows the number assessments by year). Of these, 32% were in the Pacific Islands, 24% in the Caribbean, and 11% each in Central America and South Asia (Figure 4). In terms of countries with the most assessments; Palau leads the way with 21 assessments, followed by the Republic of Marshall Islands with 14, and India with 9. Table 2 shows all of the sites where assessments were conducted, and how many were conducted at each site.

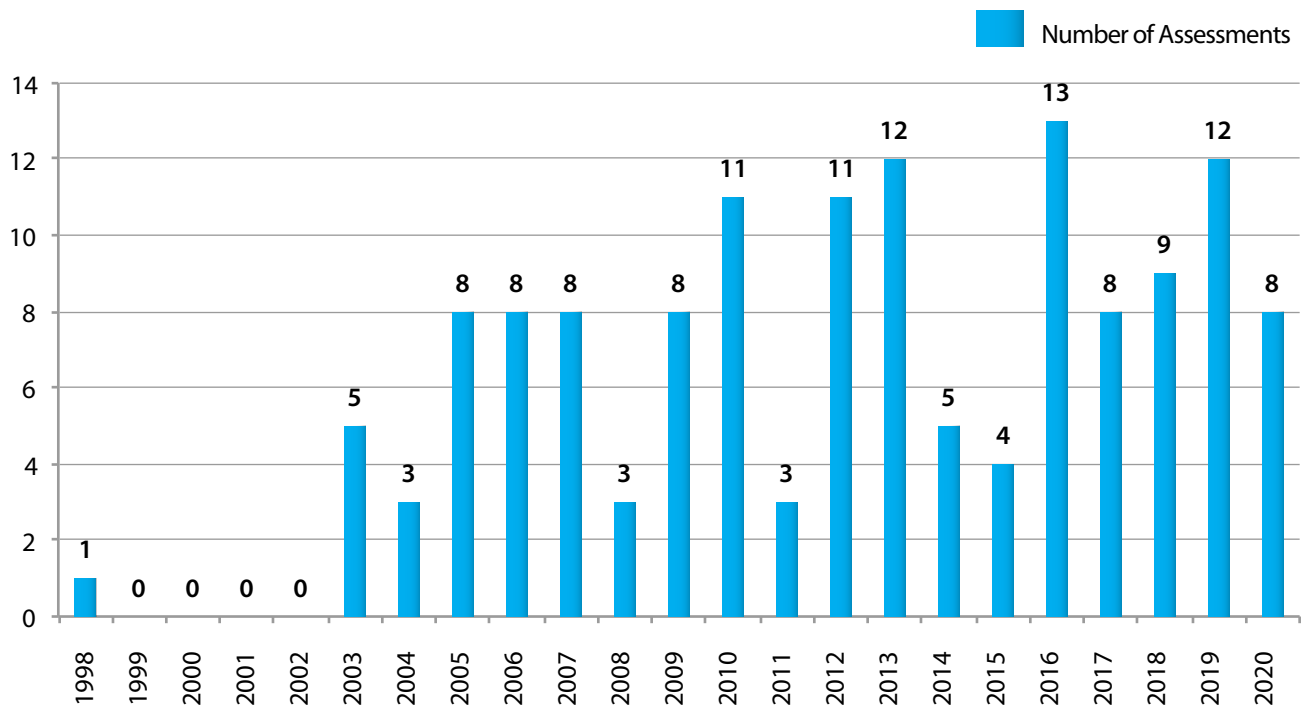


Figure 3: Number of SocMon Assessments by year (1998-2020)

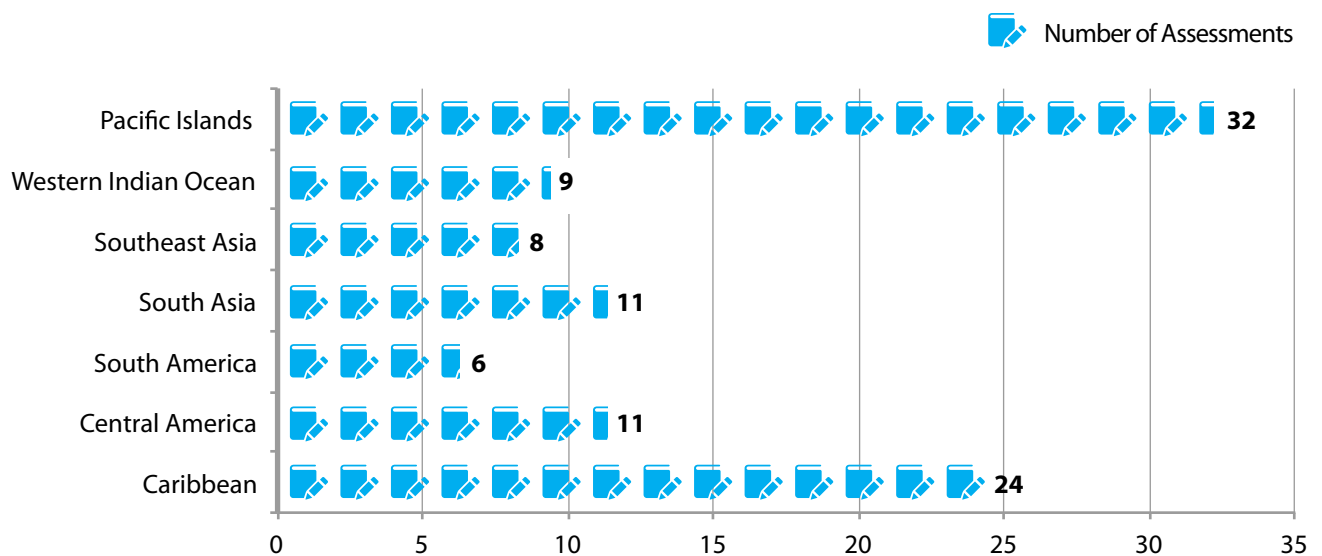


Figure 4: Distribution of assessments across SocMon regions (1998-2020)

Table 2: Number of SocMon assessments by country (1998-2020)

Country	# assessments	Country	# assessments
Palau	21	St. Kitts and Nevis	2
Republic of Marshall Islands	14	Anguilla	1
India	9	Bangladesh	1
Brazil	8	BVI	1
Grenada	6	Cambodia	1
Honduras	6	Chuuk, FSM	1
Belize	5	Colombia	1
Philippines	5	Grand Comoros	1
Tanzania	5	Guatemala	1
St. Lucia	4	Kosrae, FSM	1
St. Vincent and the Grenadines	4	Madagascar	1
Antigua and Barbuda	3	Mauritius	1
Dominica	3	Mozambique	1
Kenya	3	Nicaragua	1
Mexico	3	Saint Martin	1
Pohnpei, FSM	3	Saipan, CNMI	1
Sri Lanka	3	Seychelles	1
Turks and Caicos Islands	3	Tobago	1
Vietnam	3		
Yap, FSM	3		
Barbados	2		
Indonesia	2		
Jamaica	2		
Maldives	2		



Mapping resource use in Gamboa, Brazil, during the launch of the SocMon Brazil node

M. Pena

2.2. Objectives of assessments

From a content analysis of the objectives listed for each of the 139 assessments, the top five most frequently observed objectives measured the following:

1. Human use (16% of assessments)
2. Public perception of management (14%)
3. Natural resource dependence (13%)
4. Perceived resource condition (10%)
5. Public awareness (6%)

130 of the total number of assessments included at least one of these five objectives.

Most of the assessment objectives achieved socioeconomic baseline data useful for measuring future changes. Across all sites, these included the use of the coral reef resources, perceptions of management and resource condition, and natural resource dependence (**Table 3** details the full results of the content analysis of assessment objectives). Levels of data collected specifically for the objectives related to fisheries (e.g. to develop socioeconomic profiles of fishers, use of socioeconomic data to inform fisheries, and fisheries economics) were low. Additionally, fewer objectives focused on determining adaptation of coastal communities to climate changes, deliberately complementing biophysical monitoring, and enhancing adaptive management capacity of stakeholders.

Table 3: Objectives of socioeconomic assessments

Objective (to assess)	Objective 1	Objective 2	Objective 3
Human use	18%	25%	2%
Public perception of management	18%	10%	15%
Natural resource dependence	31%	5%	1%
Perceived resource condition	4%	8%	19%
Public awareness	7%	10%	2%
Stakeholder engagement	5%	7%	7%
Income sources	2%	11%	0%
Adaptive management	1%	2%	10%
Alternative livelihood potential	1%	2%	7%
Conservation education	0%	2%	7%
Economic benefits	2%	2%	3%
Cultural importance	1%	2%	4%
Fisher profile	4%	0%	3%
Perception of tourism	2%	2%	1%
Development impacts	2%	1%	1%
Compliance	0%	2%	0%
Economic opportunities	0%	2%	1%
Vulnerability	2%	0%	0%
Visitor profile	0%	1%	1%
Adaptive capacity	0%	0%	1%
Bycatch	0%	1%	0%
Conservation activities	0%	1%	0%
Coping strategies	0%	1%	0%
Feasible regulations	1%	0%	0%
Well being	0%	1%	0%
Fish and seafood preferences	0%	1%	0%
Fisheries economics	0%	0%	1%
Perceived threats	0%	1%	0%



2.3. Site assessment variables

The types and numbers of variables in the recorded socioeconomic assessments were large and varied from site to site based on the local needs and relevance. Overall, 116 (83%) out of 139 assessments recorded key variables associated with them, regardless whether they were collected through household surveys, key informant interviews, or secondary data. The other entries had missing data for the variables collected.

Sixty-eight (49%) of the 139 assessments collected secondary and/or key informant interviews. Key variables collected through secondary sources and key informant interviews are shown in **Table 4**. The top five types of information measured were variables related to:

1. Activities (35% of assessments)
2. Number of households (34%)
3. Levels and types of impact (33%)
4. Types of use (32%)
5. Population (30%)

Table 4: Key variables collected through key informant interviews and secondary data. Commonly measured variables are apparent

Variable	Occurrence
Activities	35%
Number of households	34%
Levels and types of impact	33%
Types of use	32%
Population	30%
Goods and services	28%
Goods and services market orientation	26%
Use patterns	26%
Community infrastructure/business development	25%
Stakeholders	25%
Management body	24%
Occupation	21%
Enabling legislation	21%
Gender	20%
Stakeholder participation	20%
Value of goods and services	19%
Tourist profile	18%
Study area	18%
Education	17%
Age	16%
Level of use by outsiders	16%
Household use	16%
Management plan	16%
Informal tenure and rules, customs and traditions	16%
Community and stakeholder organizations	16%

Variable	Occurrence
Migration rate	13%
Ethnicity	13%
Literacy	13%
Religion	13%
Formal tenure and rules	13%
Language	12%
Management resources	11%
Traditional knowledge	6%
Management impacts	6%
Power and influence	4%
Seasonality	4%
MPA knowledge	4%
Community incentives	4%
Management priorities	3%
Activity location	3%
Gender roles	3%
MPA/management support	2%
Livelihood dependence	2%
Management tools	2%
Coastal access	1%
Compliance	1%
Management responsibility	1%
Alternative livelihood potential	1%
Vulnerability	1%
Sense of stewardship	1%
Management credibility	1%
Awareness of rules/regulation	1%

2.4. Data collecting methods in SocMon assessments

The main data collecting methods used for most site assessments include household surveys, key informant interviews, and focus groups. One hundred and nine (78%) of the 139 assessments collected data through household surveys. Based on the data entered, at least 20,747 household surveys were conducted. Key variables collected through household surveys are shown in **Table 5**. The top five types of (non-demographic) information collected through household surveys were for variables related to the following:

1. Perceptions of resource conditions (62% of assessments)
2. Household activities (51%)
3. Perceived threats (46%)
4. Compliance (41%)
5. Awareness of rules and regulations (38%)

Forty-eight (35%) of the 139 assessments had information on the number of key informant interviews conducted. Based on the data, at least 870 key informant interviews were conducted.

Eleven (8%) of the 139 entries had information on the number of focus groups conducted. Based on the data entered, at least 78 focus groups were conducted. One particular study drove much of this number. A study in Tanzania (“A socio-economic baseline assessment of the Mnazi Bay-Ruvuma Estuary Marine Park”), indicated to have conducted 46 focus group discussions.

Two (1%) of the 139 entries had information on the number of fishing observations conducted. Based on the data entered, at least 60 fishing observations were conducted.

Table 5: Key variables collected through household surveys

Variable	% assessments measuring the variable	Variable	% assessments measuring the variable
Age	63%	Perceived threats	46%
Perceptions of resource conditions	62%	Compliance	41%
Gender	60%	Awareness of rules and regulations	38%
Household income	60%	Participation in decision-making	35%
Education	58%	Household market orientation	35%
Occupation	57%	Types of household uses	33%
Household activities	51%	Perceived coastal management problems	33%
Household size	49%		

Table 5: Key variables collected through household surveys continued

Variable	% assessments measuring the variable
Household goods and services	31%
Material style of life	28%
Non-market and non-use values	26%
Perceived coastal management solutions	25%
Household uses	24%
Livelihood dependence	23%
Ethnicity	22%
Enforcement	22%
Successes in coastal management	22%
Membership in stakeholder organizations	21%
Perceived community problems	21%
Religion	20%
Sense of stewardship	17%
Ecosystem knowledge	16%
Alternative livelihood potential	15%
Language	13%
Challenges in coastal management	13%
Use by outsiders	13%
Management impacts	11%
MPA knowledge	8%
MPA/management support	4%

Variable	% assessments measuring the variable
Management responsibility	4%
Marital status	4%
Awareness of conservation goals	4%
Support for conservation goals	4%
Level of poverty	4%
Management priorities	4%
Formal tenure	4%
Community tenure/origin	3%
Household structure	3%
Management structure	3%
Monetary value of goods/ services	2%
Community infrastructure/tech	2%
MPA communication	1%
Fishing pressure	1%
Informal tenure	1%
Change in food	1%
Tourism/recreation	1%
Coastal access	1%
Outreach	1%
Boat needs	1%
Coping strategies	1%

2.5. Training and capacity building

Capacity building is one of five main strategic goals of SocMon that addresses the primary mission of the initiative to continue working with local partners in improving participatory community-based social science monitoring (SocMon 2022). Forty-eight (34%) of the 141 entries included a training event. At least 669 people were trained to conduct socioeconomic monitoring assessments from 1998-2020. Most of the trainings were offered prior to initiating socioeconomic assessments and some of the training participants served as data collectors after the training. Some of the trainings were regional in nature, with participants from multiple countries/sites.

To improve tools and techniques for socioeconomic monitoring, several guidelines were developed to address management needs and emerging threats and opportunities in marine and coastal areas. These areas include spatial analysis, sustainable livelihoods, climate vulnerable assessment, indicators for human well-being, communications, etc. In the last 10 years, the following were developed and applied at different SocMon sites.

- **2011:** Indicators to assess community-level social vulnerability to climate change: An addendum to SocMon and SEM-Pasifika regional socioeconomic monitoring guidelines (Wongbusarakum and Loper 2011)
- **2013:** Indicators for Monitoring Social Impacts of the Micronesia Challenge: (Nevitt and Wongbusarakum 2013)
- **2018:** Additional Indicators for Monitoring Social Impacts of the Micronesia Challenge: An Addendum to Existing Indicators for Monitoring Social Impacts of the Micronesia Challenge and SEM-Pasifika Regional Socioeconomic Monitoring Guidelines (Wongbusarakum 2018)
- **2018:** Addenda to GCRMN SocMon for the following topics:
 - × Integrated Monitoring with SocMon/SEM-Pasifika: Principles and Process (Wongbusarakum and Heenan 2018)
 - × Incorporating SocMon with the sustainable livelihoods approach (Hoon and Townsley 2018)
 - × SocMon/SEM-Pasifika for Climate Vulnerability Assessment (Wongbusarakum 2018)
 - × Communicating the Key Learning: A Crucial But Often Neglected Step Version 1 (CERMES 2018)
 - × Spatial Socio-economic Monitoring for Coastal Management (Wood et al. 2018)
 - × Useful worksheets to guide the planning of a SocMon assessment or monitoring program (CERMES 2018)
 - × Applying SocMon to Bycatch Monitoring and Management: A Brazil Case Study (Medeiros 2018)
 - × Visioning Better Futures (Hoon and Townsley 2018)

2.6. Socioeconomic monitoring funding

Funding is a key component to any successful monitoring initiative and as such another strategic Global SocMon goal is to secure financial support for its global and regional efforts (SocMon 2022). Funding is required to implement SocMon assessment, training and capacity building activities.

Seventy-nine (56%) of the 141 entries (combined socioeconomic assessments and trainings) indicated a funding amount. There were instances of data entries signifying that one large grant was given to administer multiple socioeconomic assessments, with small sub-grants given to each of the sites. This was taken into account when aggregating funding figures so as to avoid double counting. For example, if a group of sites had an identical entry of \$US 37,000 overall – each of 5 sites awarded sub-grants of US\$4,000 for site assessments, the first site in the group was assigned a funding amount of \$21,000 and each subsequent

2.6. Socioeconomic monitoring funding *continued*

site in the group was assigned a funding amount of \$4,000. Based on the data entered, at least \$778,746 of funding or \$1,006,863 with matching funds (\$45,766 per year or an average of \$6,538 per region annually), was invested in socioeconomic monitoring globally from 1998-2020. Nearly 60% of all funding came from the US NOAA and the US National Fish and Wildlife Foundation (NFWF) and nearly 10% from international conservation NGOs such as The Nature Conservancy (TNC) and World Wide Fund for Nature (WWF). The rest of funding was from academic institutions, intergovernmental programs, and all others. The total funding secured and invested in capacity building and socioeconomic assessments globally over the 1998 to 2020 period has been inadequate and is the main reason for the lack of sustained monitoring across SocMon regions. An appropriate level of funding is critical to the collection of robust social systems data for informing management and policy. It should also be noted that in addition to grants and other forms of direct financial input, many of these training and monitoring activities were also supported through in-kind efforts such as professional time, office facilities, volunteer personnel to name a few (see reference to partnerships below).

2.7. Partnership and institutionalization at site, regional, global levels

The findings show that the strategic objective (under the Capacity Building strategic goal) of establishing partnerships with government agencies, NGOs, academic institutions, and others, to increase capacity to conduct socioeconomic monitoring (SocMon 2022) has been well achieved. SocMon has become a part of many networks of stakeholders with the shared goal of generating socioeconomic information to improve management and conservation of coral reefs and well-being of the reef dependent communities along the coast and on islands in different parts of the world. A wide range of partners have collaborated in organizing and delivering SocMon trainings, providing technical and logistical assistance for the assessment, and participating in the different steps of SocMon. These partners include governmental agencies, research and academic institutions, non-governmental conservation organizations, and community groups (See Appendix 1 for the list of partners in different regions). The regional coordinators have emphasized the importance of support and collaboration of the local communities and stakeholders as a critical factor for successful SocMon implementation. As such, Partnerships and Institutional Networking has been identified as a critical strategic action in the 2022-2026 strategic plan.

As an example, in the Pacific Island region, a regional network of socioeconomic partners in the Micronesia Challenge (MC) countries started to form in the 2010s. Regional training workshops and field assessment have been technically and financially supported by the CRCP of the US NOAA and The Pacific Islands Managed and Protected Area Community (PIMPAC) of the NOAA Pacific Islands Regional Office (PIRO), Micronesia Conservation Trust (MCT). In collaboration with numerous local conservation organizations in the Micronesia region, Micronesia Challenge (MC) socioeconomic monitoring core team was established with representatives from each of the island states in the MC countries. Most core members were staff of national research institutions, coastal and marine resource management agencies and local conservation organizations, for example Palau International Coral Reef Center (PICRC), the Mariana Islands Nature Alliance (MINA) in CNMI, Conservation Society of Pohnpei (CSP), Kosrae Conservation and Safety Organization (KCSO), Chuuk Conservation Society (CCS), Yap Community Action Program (YapCAP), Marshall Islands Marine Resources Authority (MIMRA). In many of the assessments throughout the region, community groups were engaged and became one of the most important collaborators of successful assessments.



South Asia : Measuring catches

V. Hoon

3. Challenges and Opportunities

For holistic reporting, an internal assessment of the global initiative was deemed necessary to build on the first global SocMon report (Loper et al. 2008). Regional coordinators participated in a short evaluation survey for sharing perspectives on challenges and opportunities for the global initiative. The following sections have been developed based on their narratives.

3.1. Challenges

Limited capacity and resources for strategically planning and implementing socioeconomic assessments

Most of the SocMon assessments are conducted with limited resources. Most assessment team members have been involved on a voluntary and short-term basis during the initiation of the assessments. In certain regions, the numbers of SocMon-trained staff and practitioners are small. Assessment sites may be selected for practical reasons rather than out of strategic considerations or representativeness. This situation is well captured by one of the regional coordinators: “Such practical criteria include choosing sites: (1) which are geographically near or adjacent to our offices; (2) which have local government units (LGUs) and/or local leaders/politicians that are supportive of SocMon; (3) which benefit from the presence of partner organizations (such as NGOs or LGU offices) that are willing collaborators; and (4) in which community members are willing to participate in the SocMon activities. Under ideal conditions, the priorities for site selection are the quality/types of coral reefs and associated habitats/ecosystems, and their significance (or degree of dependence) in relation to local users and an array of other stakeholders.”

Inadequate skills and social science expertise at assessment sites

Social science capacity among SocMon partners at assessment sites does not always exist; very rarely do partners such as fisheries and marine protected area authorities have staff complements with social science training. In general, many partners conducted a socioeconomic assessment for the first time. Training, while providing an initial exposure to and basic knowledge of SocMon, needs to be supplemented by technical support and assistance in carrying out the different steps of an assessment to ensure quality. In particular, most teams need support for assessment design, data analyses and report writing. Due to the lack of adequate support in these areas, some assessments have been left incomplete and the teams have been unable to inform the management of the results and lessons learned. In some SocMon regions, regional coordinators must take on the responsibility of data entry, analysis and reporting to ensure thorough completion of assessments and enable information sharing.

3.1. Challenges *continued*

Lack of sustained funding

Sustainable funding has proven to be an important factor for the continuity of SocMon projects, and to date funding has been primarily reliant on US agencies such as NOAA and NFWF, both of which have reduced their international funding due to changes in their international donor strategies. Site assessments have often been opportunistically both funding- and convenience-driven, with initiatives from local partners or communities being matched to available, but typically limited or short-term external funding. Budgets have been minimal and even to date, there is a large discrepancy between financial and other types of resources for biological monitoring and those allocated for SocMon. Many of the projects have been made possible through the contributions made by stakeholders and partners. This has included support for training venues, food, local transportation, and time of supporting personnel for SocMon activities in the field. The lack of funding and organizational priorities for socioeconomic data collection make it difficult for each region to maintain monitoring efforts long-term.

Difficulty in establishing long-term monitoring

While many assessments provide baseline information for various variables, very few sites have had repeated assessments that allow for ongoing or sequentially extended monitoring of the kind that makes it possible to track long-term socioeconomic changes. At some sites, no field assessments were conducted after training due to a lack of follow-up coordination, and/or insufficient resources and capacity. Many sites also experience rapid turnovers of personnel trained in SocMon. Continuous or additional training of new staff is necessary to continue the SocMon work or to start a new project. In summary, reasons for the discontinuation of follow-up or repeated assessments include lack of funding, inadequate human and technical resources, lack of long-term socioeconomic monitoring planning/programs from the start of the project, and departures of monitoring team members/leads/coordinators.

Slow buy-in and uptake of integrated monitoring

One of the main goals of the Global SocMon initiative is Integration for Decision-making which emphasizes better integration of socioeconomic information with biophysical information to improve comprehensive coastal management (SocMon 2022). This is possible if biophysical and social science disciplines work together at the inception of any assessment or monitoring program. This involves combining complementary research questions in order to solve management and policy needs.

Integrated monitoring is, indeed, important for many issues that require holistic understanding of social-ecological systems. This includes climate vulnerability and adaptation, which have become critical for coastal and island communities around the world. However, it is common that SocMon results are not integrated with biophysical data or information. Interest in social scientific information and understanding of their utility are generally low among those who manage reefs, coasts, and fisheries, and who are used to making use only of biophysical information. Demands for and uses of social data are still limited in management. Integrated monitoring has proven to be difficult in practice and very few sites have been able to initiate and carry through with full integration. Successful integration requires several enabling factors and conditions. These include a dedicated coordinator; policy and institutional support for sustaining multidisciplinary expertise; early engagement of key players in the planning process; understanding and accepting different methods; social-ecological system learning and adaptation; and flexibility to adjust to the appropriate monitoring timescales in relation to biophysical and social conditions (Wongbusarakum et al 2019).

3.1. Challenges *continued*

Lack of regional standards

SocMon guidelines have met their objectives in providing easy-to-use tools for site-based assessments and for tailoring its design to generate data that are useful for site management. However, assessment variables necessarily differ from site to site (based on the goals and objectives for assessment), even in the same region. This makes it difficult for data to be rolled up to the regional level and used to establish regional baselines. However, the Pacific island region has made an attempt at regional standardization. Among the five Micronesia Challenge (MC) countries in the Pacific Island region, MC regional data were important to determining the success of the regional conservation initiative. It required multiple workshops hosted over a few years to sufficiently engage stakeholders and social scientists for them to collectively develop agreed-upon MC regional indicators that would be used in all assessments in addition to site-specific indicators.

Issues with human-related data ownership and shareability

While it is important for SocMon regions to have data from different sites hosted by a particular institution, most SocMon regions have not identified the data-hosting institution or developed protocols to safeguard human subjects, to protect local ownership of the data, and to safely and effectively share data across sites. This is a priority in moving forward and efforts to identify data-hosting institutions are underway in some regions. For example, SocMon Caribbean is exploring the possibility of storing and sharing regional data through the Caribbean Protected Areas Gateway (CPAG)¹ of the Biodiversity and Protected Areas Management (BIOPAMA) Programme. Centralized digital data storage to secure regional SocMon datasets, increase data access and sharing (both internally and externally), and improve wider use and application of data is a strategic objective under the Approach Enhancement strategic goal (SocMon 2022)

Inadequate and ineffective communications of results to decision makers for adaptive management

Communicating results and their applications in adaptive management vary greatly from site to site, ranging from sharing results in community and stakeholder meetings and discussing ways to address the findings on the one hand, to sporadic, limited, or a complete absence of result communications with the decision makers on the other. In some sites, difficulties have been reported by NGO partners attempting to inform governmental officials of assessment findings and their implications. Limited capacities for analyzing data and for producing technical reports with science-based recommendations, combined with ineffective result communication to decision makers, significantly hinder the useful application of SocMon project findings in management. The current knowledge to decision-making gap must be filled and could be accomplished by engaging science-policy/boundary-spanners to assist in facilitating the exchange of information between SocMon and coastal managers, decision/policy makers. This has been suggested by SocMon coordinators and included as a strategic intent for implementation through the 2022-2026 strategic plan (SocMon 2022). Discussions with regional coordinators suggest that it is also important, prior to conducting assessments, to remind partners that they must address the significance the SocMon results would have for stakeholders and how these results could be used to improve planning and/or adaptive management.

1 <https://caribbeanprotectedareasgateway.com/>

3.1. Challenges *continued*

Limited institutionalizing support

Many SocMon coordinators and partners are individuals who devote themselves to the network without either financial compensation or an official agreement regarding their roles and responsibilities. Although they each have organizational affiliations, most of these organizations do not have formal partnership agreements or memoranda of understanding about providing secure institutional support or that specify clear expectations regarding their participation in the SocMon network. The lack of formal institutional agreements increases the risks of region-wide and project-specific losses of momentum, and of discontinuations due to the departure of key individuals from the SocMon network. In certain regions, despite recognizing the importance of socioeconomic data, local administrations and governments neither allocate the funds needed nor formalize plans to institutionalize the collection of this data. Additionally, governance regimes vary across sites and countries. SocMon projects at some sites are led by NGOs that are concerned with natural resource conservation, and others by governmental agencies, universities or collaborative efforts. Considerable instability and variance characterizes the priorities involved in resource management and conservation, exacerbating existing challenges caused by the lack of formal and longer term institutional agreements. This issue is flagged to be addressed by the global network and has been listed as a strategic intent for improving coordination of the initiative in the 2022-2026 strategic plan (SocMon 2022).

3.2. Opportunities

Committed SocMon coordinators and practitioners

SocMon has had consistent institutional back-up by the US NOAA as its global coordinator. Despite the partly or fully long-term voluntary nature of the involvement of SocMon regional coordinators and practitioners, the initiative has been maintained around the globe for over 20 years with many capacity building and assessment implementations having been successfully conducted through a shared approach and guidelines. Much of the work the coordinators are involved in requires high levels of perseverance, adaptive capacity, and willingness to meet demands on an ad hoc basis.

Usefulness for local management

SocMon tools are suited for site level use and can be easily adopted by a local organization with minimal training. In ideal situations, SocMon has proven its ability to tailor assessments to local management needs, to apply a community-based approach, and to promote stakeholder participation throughout the SocMon process from assessment inception, to planning, data collecting, learning and result application.

Growing recognition of human dimensions in coastal management

Throughout all SocMon regions and among certain partners, organizations, and large international projects, the importance of better understanding the human dimensions of conservation is steadily growing, including understanding the socioeconomic conditions of reef dependent communities and how management affects community well-being. Many established concepts and sectors - for example, social-ecological systems,

3.2. Opportunities *continued*

human well-being, sustainable livelihood, social inclusion, waste management, fisheries management - all require socioeconomic information to track the successful realization of project objectives. Although this has not yet been explored extensively, the growing recognition of social data needs could open new funding and partnership opportunities for SocMon.

Integration with other human-related tools to improve coastal management

The regional simple and adaptable SocMon guidelines are well-established in all regions, and complimentary guidebooks addressing emergent needs have been developed in recent years. In addition to the social scientific field data collecting tools (such as survey, semi-structured interviewing, focus group discussion, observation, oral history) and the visualization techniques (mapping, transects, timelines, seasonal calendars, decision trees, flow charts, etc.) that are outlined in the SocMon GCRMN global guidebook and in the SocMon regional guidelines, there are many other people-related tools and approaches that have been used to complement the use of SocMon tools. These include Participatory Rural Appraisal (PPR), Rapid Appraisal of Fisheries Management System (RAFMS), Sustainable Livelihoods Enhancement and Diversification (SLED), climate vulnerability assessments, etc.



Pacific Islands: Household survey - Impact Assessment Methodology trail, Nukuoro Atoll, Pohnpei

4. Moving forward

The Global Socioeconomic Monitoring for Coastal Management initiative has a long history of efforts directed towards assisting “...coastal stakeholders to better understand and incorporate the socioeconomic context into coastal management programs through global, national, regional and local partners to facilitate participatory socioeconomic monitoring for the benefit of local communities and relevant stakeholders” (SocMon 2022). The need for greater understanding of the complex interactions between social systems and coastal and marine ecosystems is critical to evidence-based decision-making more so now than ever given the increasing resident population along the world’s coasts; the global climate crisis; the burgeoning Blue Economy particularly in Small Island Developing States or Large Ocean States; large scale coastal development that seems largely inconsistent with the conservation objectives; habitat alterations and biodiversity loss; pollution impacts (land-based, marine debris) etc. This should make socioeconomic monitoring initiatives such as SocMon indispensable to local, national and regional coastal and marine monitoring programs worldwide.

Global SocMon has the potential to contribute significantly to comprehensive, evidence-based coastal and marine management globally through a number of priority strategic actions that include capacity building, supporting policy and decision-making, financial sustainability, approach enhancement, dissemination of information, stakeholder engagement, and partnerships and institutional networking. This is the focus of the initiative over its next five years (SocMon 2022). These chosen areas of focus are briefly discussed below in the context of the future direction for Global SocMon.

Capacity building

Across all SocMon regions, there is limited capacity and therefore a lack of investment in social science within marine and coastal resource management. Most coastal and marine resource managers have academic and professional experience in the natural sciences disciplines and no background in the social sciences (CERMES 2018; Lohmann 2019). This impacts the capacity to conduct any type of socioeconomic assessment. To address this major gap in capacity, Global SocMon recognizes the need to increase the pool of SocMon trainers and practitioners; establish partnerships with government agencies, NGOs, academic institutions etc. to increase capacity to conduct socioeconomic monitoring; and increase the accessibility to training and technical assistance for applying socioeconomic information to decision-making. Accessibility to training has been identified as a strategic priority action over the next five years. The aim is to develop online SocMon courses, particularly a Massive Open Online Course (MOOC) to increase access to training opportunities and satisfy training demand. Additionally, the development of a directory of experts to enhance SocMon efforts globally is thought to be key to increasing the capacity of the network itself and to expanding the reach and uptake of the approach (SocMon 2022).

Supporting policy and decision-making

Central to this priority action is the actualization of integrated long-term monitoring. SocMon was originally designed to generate socioeconomic information to improve coastal management and has been supported by programs and institutions that focus on coral reef and coastal and marine resource management. In order for individual socioeconomic assessments to become established and transformed into long-term monitoring, forward-looking strategic monitoring plans need to be developed by relevant management authorities and adequately supported with relevant resources.

With growing acceptance of the importance of the social-ecological systems of the coast, islands and reefs, the ecosystem approach to coastal/reef/fisheries management is becoming more encompassing and inclusive of multiple levels of governance, different types of sectors and stakeholders, and various disciplines. SocMon should be integrated into a larger monitoring program within which different disciplines are employed to produce the best available information for managers and decision makers to improve both biophysical conditions and the wellbeing of communities dependent on associated coastal and marine resources. Efforts need to be made to include SocMon findings in resource management decision-making, and there must be an accountable coordinating body (perhaps a national intersectoral coordinating mechanism such as an advisory committee) equipped with the resources needed to help support reaching such a goal.

There is a pressing need to integrate socioeconomic and biophysical monitoring to inform holistic ecosystem-based management. Essential data on the human dimensions of coral reefs should not stand alone but should be considered integral to data collection on biophysical conditions. SocMon is meant to complement the biophysical monitoring and be used in a comprehensive holistic approach to better understand the desired ecosystem services, drivers and pressures of change, state of the ecosystem, and assess the interdependence of factors associated with the ecosystem. This is imperative if society is going to have a more sustainable relationship with natural resources, services, values, and the ecosystems on which they are reliant. However, if socioeconomic monitoring cannot be sustained long-term, integrated comprehensive monitoring will not be possible and management will lack critical information necessary to manage coral reefs and other coastal ecosystems on behalf of society.

Policy and decision-making at national and regional levels may also be supported and influenced through assessing regional needs with respect to emerging issues and determining a core set for Global SocMon attention; engaging (as a best practice) government representatives, decision makers etc. in SocMon trainings and events to promote the uptake of SocMon; and implementing the best practice of follow-up or evaluation with partners to determine how assessment or monitoring findings have been used for management or conservation purposes (SocMon 2022). While these have been examined to varying extents across SocMon regions, there has not been a coordinated effort to addressing them. Tackling these areas should fundamentally improve the application of SocMon information to answering management questions and influencing evidence-based decisions and policy.

Financial sustainability

Identifying and diversifying sources of financial support for SocMon activities has become critical for all activities across all SocMon regions and for their continuation to the point of achieving observable and significant impacts in coastal management. At the same time, there is a need to secure appropriate funding for SocMon activities and areas that require well-trained expertise, such as for data analysis, communicating management implications, and reporting biosocial results. The diversification of funding assets has now

4. Moving Forward *continued*

become urgent within the initiative to mitigate against network vulnerabilities to budget cuts or shifts in priority and agendas in current primary donors or funding programs. Global SocMon has prioritized the development of a database to track funding sources with the main aim of using it for financial leverage and tracking funding success. Such a repository of funding information will also be useful for financial leverage. Linked to this is the proposed development of donor packages (global, regional and local) that can be used to drive and direct or inform donations and support (SocMon 2022). SocMon regions have and will continue to source funding from large conservation organizations, projects and programs to support regional socio-economic activities. Donor packages will assist in seeking the financial support required.

Approach enhancement

Improved and new approaches and tools are required to respond to emerging opportunities and threats in marine and coastal areas. The development of improved SocMon monitoring tools and techniques can enhance monitoring and better respond to management needs. This strategic goal can be achieved by developing additional or new monitoring tools that incorporate contemporary and or emerging management issues (e.g. marine debris), and centralized digital data storage to secure regional SocMon datasets, increase data access and sharing (internally and externally), and improve wider use and application of data.

Approach enhancement is a constant within the Global SocMon initiative as coordinators are mindful that the approach needs to evolve to improve its applicability and use through the development of complementary tools and guidelines, and integration with other approaches. As a result, a number of products that can enhance the methodology and can be used to communicate SocMon information to different stakeholders have been developed in the recent past (since 2013). These have included updates to the GCRMN SocMon manual - guidelines for integrated monitoring, the development of the SocMon spatial tool, guidelines for inclusion of SocMon in climate vulnerability assessment, guidelines for incorporating SocMon in by-catch monitoring and management, recommendations for combining the methodology with development and management approaches such as Sustainable Livelihoods Analysis (SLA) and Ecosystem Approach to Fisheries (EAF), and a guide to communicating SocMon key learning.

Dissemination of information

The Global SocMon Initiative recognizes the value of disseminating information about its approach to socio-economic monitoring, its outputs, outcomes and success stories within and among each SocMon region. Not only will this be effective at increasing awareness about SocMon and its potential utility but can also ensure that the findings of assessments and monitoring can be applied effectively to improve coastal and marine management and enhance life quality for coastal communities. To achieve this strategic action, Global SocMon has proposed a number of intents that include the development of a communication strategy; the maintenance and update of the Global SocMon website² that can serve as a knowledge hub; and the best practice of following-up with project partners subsequent to the initiation of socioeconomic assessments and termination of projects to determine how and in what ways findings have been used for conservation or management (SocMon 2022). The newly updated SocMon website provides a forum for people from all over the world to learn more about SocMon initiatives and tools, to explore assessment examples, and to access resources they can employ in their own work.

2 <https://icriforum.org/socmon/>

4. Moving Forward *continued*

Communication is a critical facet of coastal and marine resource management but can be challenging given the diversity and complexity of natural resources. Diverse stakeholders of differing levels of education, knowledge bases, cultures, interests and ways of learning add to the communication challenge. SocMon site assessment reports, PowerPoint presentations, executive summaries and policy briefs have been typically used for communicating SocMon findings globally but more diverse products and communication pathways must be utilized. These could improve the accessibility and effectiveness of SocMon information in coastal and marine resource management. The three-pronged approach to disseminating information proposed by Global SocMon (communication strategy, website and follow-up) should result in attracting the attention of potential users and packaging SocMon data and information in a succinct, salient, relatable and visual manner for greater impact and uptake.

Stakeholder engagement

Stakeholder engagement is crucial to the application of SocMon information to management and decision-making. Without comprehensive stakeholder engagement and buy-in, the participatory process of SocMon will be undermined. Stakeholder engagement is a key strategic action of the strategic goal of Informing and Influencing - the purpose of which is to encourage stakeholders to use SocMon data and information to support increased awareness for the need for human dimensions monitoring, holistic decision-making and policy development. For stakeholder engagement to be successful, diverse groups must be included in the decision-making process for more equitable outcomes in coastal management. Such has been common practice of the initiative and is firmly grounded in the SocMon approach from preparatory activities to validation of findings. Next steps with respect to stakeholder engagement will involve the development of a Diversity, Equity and Inclusion Statement to guide SocMon efforts globally (SocMon 2022). This demonstrates the initiative's commitment to building an inclusive, varied context, welcoming the participation of people of all backgrounds.

Partnerships and institutional networking

Internally, the Global SocMon network could strengthen cross-region collaborations. It is important for the network to have regular strategic planning meetings with the coordinators and key partners in order to assess its progress in achieving commonly defined objectives and for modifying action plans. Periodically, the SocMon mission, goals and objectives, and its outputs/outcomes should be reviewed. Revisiting and redefining roles, activities, and the network structure should be undertaken as needed. When appropriate, formal agreements with coordinators' institutions and partners should be developed.

Collaboration and communication among SocMon coordinators should increase and take advantage of such online platforms as Zoom and Google Meet. Collaborative projects and synergies among them should be actively explored (such as when Southeast Asia and South Asia coordinators collaborated to conduct a training in Myanmar and India). Coordinators should exchange experiences and lessons learned from their regions and collaborate on initiatives of shared interest. Regions that have been more successful in seamlessly supporting SocMon activities could share both equal factors of success and enabling conditions to assist the network in discovering ways to bring all regions up to the same level. The SocMon network should also explore new regions that may be interested, such as Meso-America.

Socializing the importance and usefulness of SocMon could be an initial step to obtaining and strengthening relevant international and regional partnerships. Institutional MOUs/MOAs with research and academic

4. Moving Forward *continued*

institutions can provide win-win opportunities for researchers and students to be involved in SocMon activities and benefit from opportunities to work in real life situations with communities and stakeholders, while at the same time strengthening the provision of technical assistance to SocMon non-academic partners and team members. Similar partnerships or meaningful connections should be made with relevant organizations and initiatives for additional reach and impact on coastal management and decision-making.

Increased collaboration and interdisciplinary work within the GCRMN is needed to understand the links within the social-ecological system. GCRMN and SocMon must collaborate to integrate biophysical and socio-economic monitoring data and new perspectives. Effective coastal resource management is only possible if biophysical and social science disciplines work together at the inception of any monitoring program. This involves aligning our goals and combining complementary research questions in order to more accurately evaluate the status of coral reefs and enact meaningful management practices to provide desired ecosystem services and respond to emerging threats in coastal-marine areas.

Building SocMon at regional and global levels strategically

Despite being an approach applied in several world regions, there are a number of challenges that must be overcome if SocMon is to become a standard regional and global tool. To allow for regional level data and comparisons within or across regions, regional guidelines will need to include specific guidance on long-term monitoring planning and implementation. It will also be necessary for the SocMon network to develop strategic plans for regional monitoring and relevant regional core variables to be implemented across sites. Considerations of how to address these needs and balance resource allocations between regional versus global efforts and local or site-based monitoring will necessitate a thoughtful and inclusive process in which different stakeholders and data user groups participate.

In most SocMon project sites, there are already projects by international conservation NGOs (such as TNC, WWF, CI, and RARE), intergovernmental organizations (such as FAO, UNEP) and donor agencies (e.g. the World Bank, Asian Development Bank, USAID). As a means to strengthen SocMon and sustainably finance its activities, international partnerships within the broader context of integrated coastal management (ICM) and/or ecosystem-based management (EBM) should be established or further developed. Collaboration with partners in coral reef/coastal/fisheries conservation and management, such as ICRI should be deepened, and GCRMN and WorldFish should be revived.



Flora and Fauna International does SocMon in Myeik Archipelago, Myanmar 2014

M. Pido

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6. Appendix 1: SocMon Partners

Global SocMon regrets any inadvertent partner omissions by contributors.

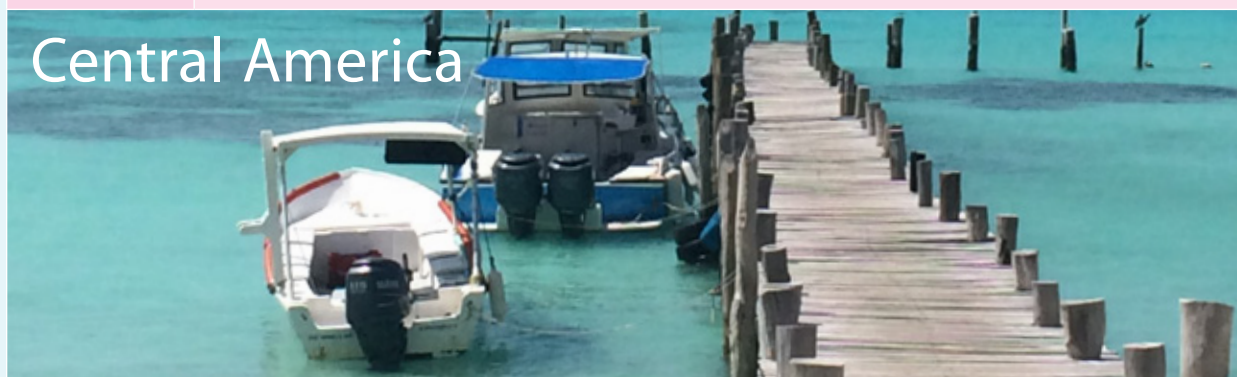


Caribbean

M. Pena

Region	Project partners
Caribbean	Anguilla National Trust (ANT)
	Antigua and Barbuda Fisheries Division
	Association de Gestion de la Réserve Naturelle de Saint Martin (AGRNSM)
	Barbados Fisheries Division
	Barbados National Union of Fisherfolk Organisations (BARNUFO)
	Carriacou Environmental Committee, Grenada
	Comisión Nacional de Áreas Naturales Protegidas (CONANP)
	Conservation and Fisheries Department, British Virgin Islands
	Department of Environment and Maritime Affairs (DEMA), Turks and Caicos Islands
	Department of Fisheries and Marine Resources (DFMR), Anguilla
	Department of Marine Resources, St. Kitts and Nevis
	Dominica Fisheries Division
	Grenada Fisheries Division
	Grenada Fund for Conservation
	Jamaica Fisheries Division
	Ministry of Agriculture, Nevis Island Administration, St. Kitts and Nevis
	Montego Bay Marine Park, Jamaica
	National Oceanic and Atmospheric Administration (NOAA)

Region	Project partners
Caribbean	National Parks Authority, Antigua and Barbuda
	National Parks, Rivers and Beaches Authority, St. Vincent and the Grenadines
	Oistins Fisherfolk Association (OFA), Barbados
	Pitons Management Area (PMA), Saint Lucia
	Saint Lucia National Trust
	Sandy Island/Oyster Bed Marine Protected Area, Grenada
	Soufriere Marine Management Association (SMMA), Saint Lucia
	St. Peter's Fisherman's Cooperative, Dominica
	St. Vincent Fisheries Division
	The Nature Conservancy
	Tobago Cays Marine Park, St. Vincent and the Grenadines
	UNEP Caribbean Environment Programme



Region	Project partners
Central America	Asociación Civil Uyo'ol Che
	Belize Audubon Society
	Comisión Nacional de Áreas Naturales Protegidas (CONANP)
	Coral Cay Conservation
	EAP Zamorano
	Flora and Fauna International
	Friends of Nature (FON)
	Fundación Cayos Cochinos
	Fundación Cuero y Salado

SocMon Central America Team

Region	Project partners
Central America	FUNDARI
	Instituto de Investigaciones Marinas y Costera (INVEMAR)
	La Unidad Administrativa Especial de Parques Nacionales Naturales (UAESPNN)
	Marine Ecology Centre
	National Oceanic and Atmospheric Administration (NOAA)
	PROLANSATE Foundation
	University of Zamorano Centro de Estudios Marinos (CEM)
	World Wildlife Fund Central America (Mesoamerica)

Brazil, South America



Region	Project partners
Brazil, South America	Centre for Marine Studies, Federal University of Paraná, Brazil (CEM/UFPR)
	Centre for Environmental Studies and Research, State University of Campinas (NEPAM/ UNICAMP)
	Transdisciplinary Group on Environment and Development, Federal University of Santa Catarina (NMD/UFSC)
	Chico Mendes Institute for Biodiversity Conservation/Ministry of Environment (Instituto Chico Mendes de Conservação para a Biodiversidade/Ministério do Meio Ambiente) (ICMBio/MMA)
	South – Southeast National Centre for Research and Marine Conservation (Centro Nacional de Pesquisa e Conservação da Biodiversidade Marinha do Sudeste e Sul) (ICMBIO/CEPSUL)
	Environmental Protected Area of Anhatomirim, Group for Integrated Management Florianópolis (NGI Florianópolis) (ICMBio/MMA)
	Group for Integrated Management Antonina (NGI Antonina), ICMBio/MMA
	City Hall of Governador Celso Ramos

Rodrigo Pereira Medeiros

Region	Project partners
Brazil, South America	Santa Catarina State Crop and Livestock Research and Rural Extension Agency (EPAGRI)
	Brazilian Coordination for the Improvement of Higher Education Personnel, Ministry of Education (CAPES)
	United Nations Food and Agriculture Organization (FAO)



V. Hoon

Region	Project partners
South Asia	Agatti Coral Reef Monitoring Network (ACRMN)
	Andaman and Nicobar Environmental Team (ANET), India
	Centre for Action Research on Environment Science and Society (CARESS), U.T of Lakshadweep, India
	Chilika Development Authority, Odisha, India
	Coast Conservation Department, Sri Lanka
	Community Aid and Action (CAD), Mannar, Sri Lanka
	Department of Science and Technology and Environment (DST) (Union Territory of Lakshadweep)
	Divers Association of Maldives
	GCRMN South Asia (SA)
	Lakshadweep Marine Research and Conservation Centre (LMRCC), U.T of Lakshadweep, India
	Maliku Development Society, (MDS) Minicoy Island, Union Territory of Lakshadweep
	Marine and Coastal Resources Conservation Foundation, Sri Lanka
	Marine Research Centre, (MRC) Ministry of Fisheries, Agriculture and Marine Resources, Male, Maldives
M.S. Swaminathan Research Foundation, Chennai, India	

Region	Project partners
South Asia	Peoples Action for Development (PAD), Vembar, Gulf of Mannar, India
	Research and Environmental Education Foundation (REEF)
	Small Fisher Federation of Lanka-Sudeesa, Sri Lanka
	Seamarc Pvt. Ltd., Maldives
	Coast Conservation Department, Mannar, Sri Lanka



Region	Project partners
Southeast Asia	Bunaken National Park Management Advisory Board, Indonesia
	City Government of Puerto Princesa, Philippines
	Coastal Dynamics Foundation, Philippines
	Conservation International - Philippines
	Fisheries Action Coalition Team (FACT), Cambodia
	Flora and Fauna International
	Management Board of Trao Reef Locally Managed Marine Area, Vietnam
	Marine Life Alliance, Bangladesh
	Mindoro State College of Arts and Technology (MinSCAT), Philippines
	Municipality of Magsaysay, Palawan, Philippines
	Ninh Thuan Department of Fishery Resources Protection and Exploitation, Vietnam
	Palawan Council for Sustainable Development Staff (PCSDS), Philippines
	Palawan State University (PSU), Philippines
	Quang Nam Department of Fishery Resources Protection and Exploitation, Vietnam
	The Indonesian Coral Reef Foundation (TERANGI), Indonesia

West Indian Ocean



Blue Ventures Madagascar

Region	Project partners
West Indian Ocean	Blue Ventures Madagascar
	Coastal Oceans Research and Development – Indian Ocean (CORDIO) East Africa
	Kenya Sea Turtle Conservation Committee
	ReCoMaP
	Seychelles National Parks Authority
	Tanga Region Authority

Pacific Island



SEM-Pasifika Team

Region	Project partners
Pacific Island	Capacity Enhancement Project for Coral Reef Monitoring (CEPCRM)
	Chuuk Conservation Society (CCS), Chuuk, Federated States of Micronesia (FSM)
	Conservation Society of Pohnpei (CSP), Pohnpei FSM
	GEF Small Grants Program
	Helen Reef Resource Management, Palau
	International Organization for Migration (IOM)
	Japan International Cooperation Agency (JICA)
	Kadai Community & Cultural Development Organization (KC & CDO)

Region	Project partners
Pacific Island	Kosrae Conservation and Safety Organization (KCSO), FSM
	Kosrae Island Resource Management Authority, FSM
	Mariana Islands Northern Alliance (MINA), CNMI
	Marshall Islands Conservation Society (MICS), Republic of the Marshall Islands (RMI)
	Marshall Islands Marine Resource Authority (MIMRA), RMI
	Micronesia Conservation Trust (MCT), Pohnpei FSM
	NOAA Coastal Oceans Program
	NOAA Coral Reef Conservation Program (CRCP)
	NOAA Pacific Island Regional Office (PIRO)
	National Geographic Society Pristine Seas
	Ngiwal State Office, Palau
	Office of Fisheries & Aquaculture, FSM
	Pacific Islands Marine Protected Area Community (PIMPAC) Program
	Palau Community College
	Palau Coral Reef Island Ecosystem Project
	Palau International Coral Reef Center (PICRC), Palau
	Palau Sportfisher Association
	Tamil Resource and Conservation Trust (TRCT), Yap FSM
	The Coastal Management Advisory Council (CMAC), RMI
	The David and Lucile Packard Foundation
	The Nature Conservancy (TNC)
	The University of British Columbia Biodiversity Research, Integrative Training and Education (BRITE) Internship Program
	The University of Hawaii
	University of Queensland
University of the Ryukyus	
Yap Conservation Action Program (YapCAP), FSM	



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