

CLME SCM4

Agenda Item 6

Sustainable Management of the Shared Living Marine Resources of the Caribbean Large Marine Ecosystem and Adjacent Regions

Status, Lessons Learnt and Best Practices

Patrick Debels
Regional Coordinator
PatrickD@unops.org

Laverne Walker
Senior Project Officer
LaverneW@unops.org



CLME:

Sustainable Management of the
Shared Living Marine Resources of the
Caribbean Large Marine Ecosystem (CLME)
and Adjacent Regions



United Nations
Educational, Scientific and
Cultural Organization



Intergovernmental
Oceanographic
Commission



**4-year project (co-)financed by
GLOBAL ENVIRONMENT FACILITY (GEF)**

GEF Contribution: aprox. US\$ 7 million

Focal Area : International Waters

Start Date: May 2009

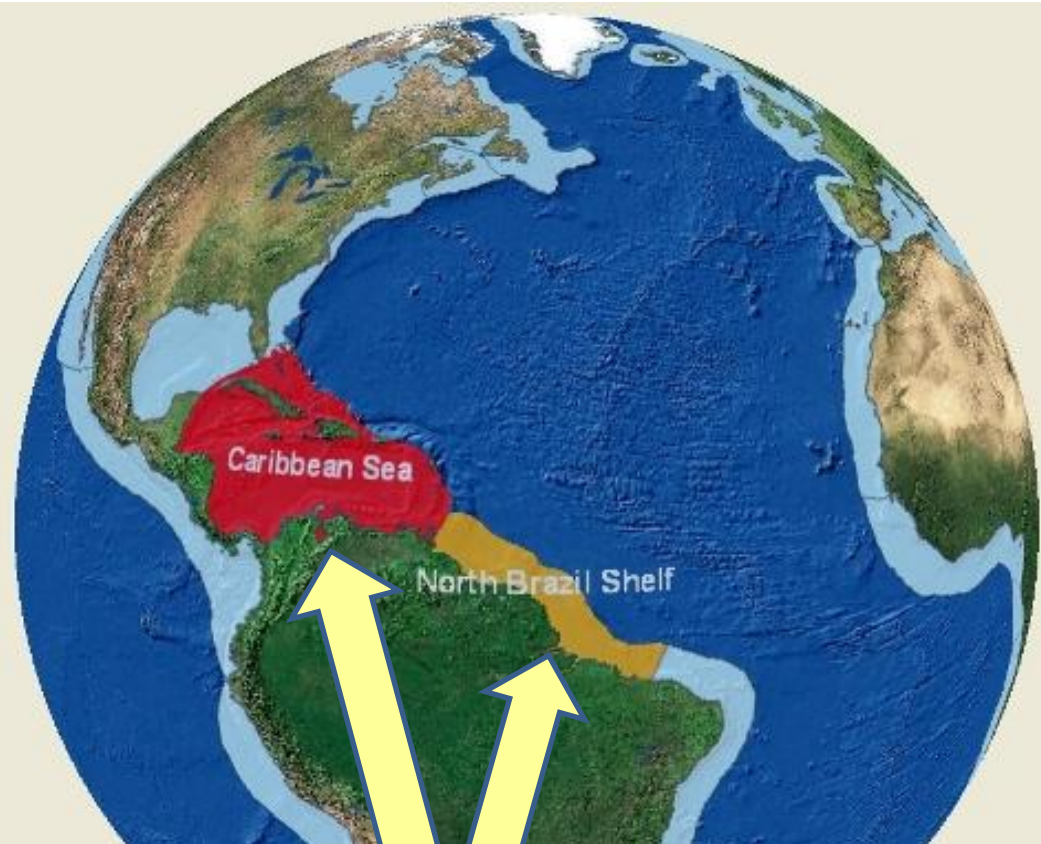
“End Date: April 2013”*

GEF 4 “International Waters”:

SP-1: Restore and sustain coastal and marine fish stocks & associated biological diversity



ECOSYSTEM
APPROACH



“CLME” = 2 LMEs
Caribbean LME + North Brazil Shelf LME

GEF 4—Focal Area “International Waters”:

*Coordination between States for
the management of ecosystems
and transboundary aquatic
resources*



Strategic Action Programme for the
CLME+



Improved policies, legal
frameworks, management
approaches and key investments
in the field

GEF Operational Strategy For IW

3 kinds of GEF interventions:

☐ **Foundational Capacity Building:**

- ☐ Transboundary Diagnostic Analysis (TDA)
- ☐ National Inter-sectoral consultation & coordination
- ☐ Strategic Action Program (SAP)

CLME PROJECT –
current phase



- ### ☐ **Implementation of Stress Reduction Measures:** based on an agreed SAP, GEF may support a “SAP Implementation Project”, including national reforms, demonstration investments for transboundary priorities, regional institution-building

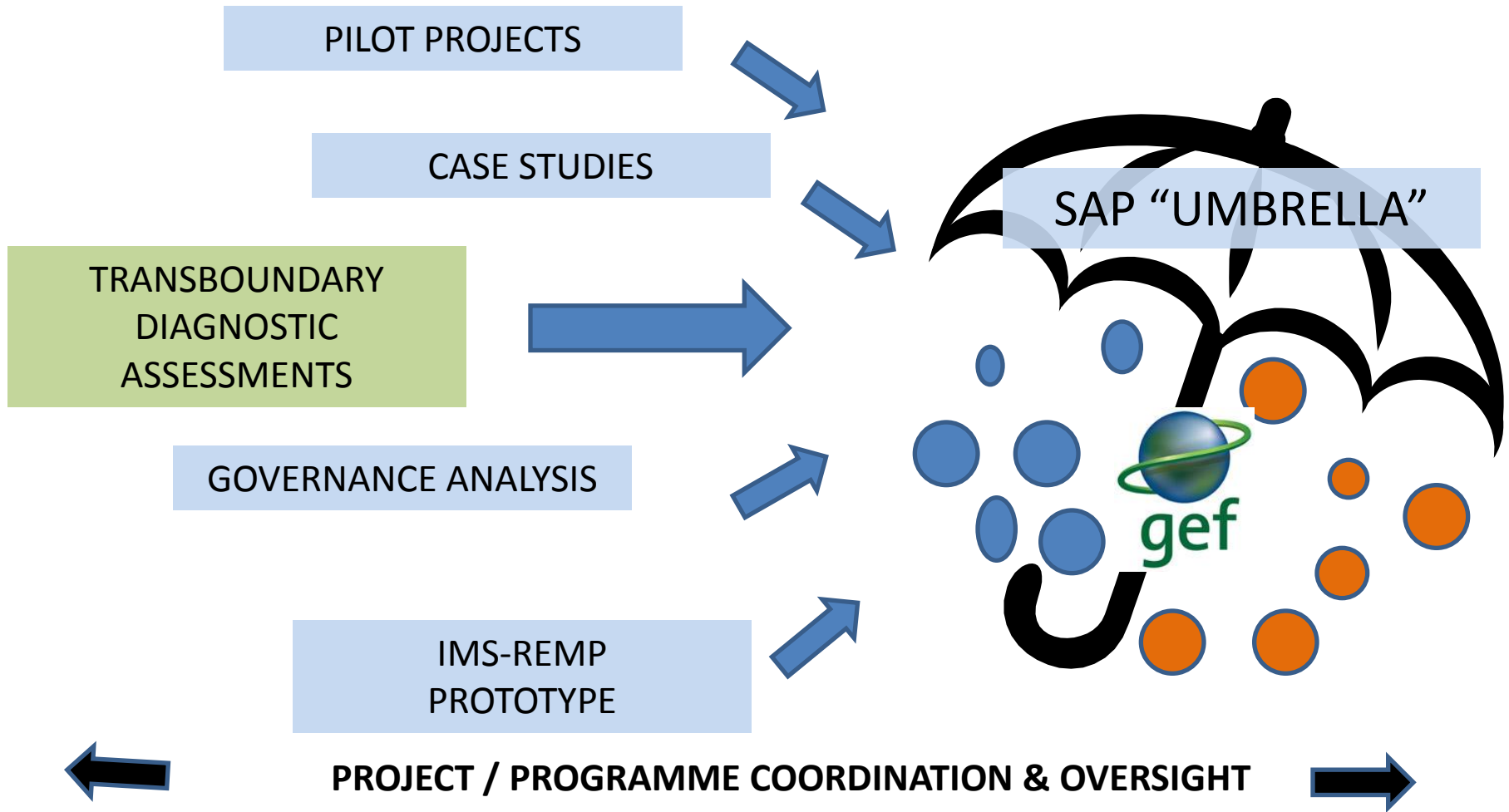
GEF support for
implementation of
CLME SAP



Sustainable Management of the Shared Living Marine Resources of the Wider Caribbean

		2006				2007				2008				2009				2010				2011				2012				2013				2014 →				
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4									
CLME PDF B		DEVELOPM OF FULL PROPOSAL + 3 SUBREGIONAL TDA'S																												TOWARDS SAP IMPLEMENTATION								
CLME FSP														UPDATED, FISHERY ECOSYSTEM-BASED & REGIONAL TDA'S, PILOT PROJECTS & CASE STUDIES, GOVERNANCE FRAMEWORK, SAP DEVELOPMENT & ENDORSEMENT																								
GEF approval FSP																																						
																						↑ NOW																

The CLME SAP Umbrella



Existing Projects

New Projects



Implementation of new projects under the SAP supported by the GEF

TRANSBOUNDARY DIAGNOSTIC ASSESSMENTS

3 ECOSYSTEMS (CLME+NBSLME)



IMS/REMP: 3x3 matrix:

3 ecosystems, 3+1* (key) problems

ACTIONS

Key Issues → ↓ Key Ecosystems	<i>Unsustainable Fisheries</i>	<i>Habitat Depredation & Community Modification</i>	<i>Pollution</i>
<i>Reef (and associated) Fishery Ecosystems</i>			
<i>Large Pelagic Fisheries Ecosystems</i>			
<i>Continental Shelf Fisheries Ecosystems</i>			

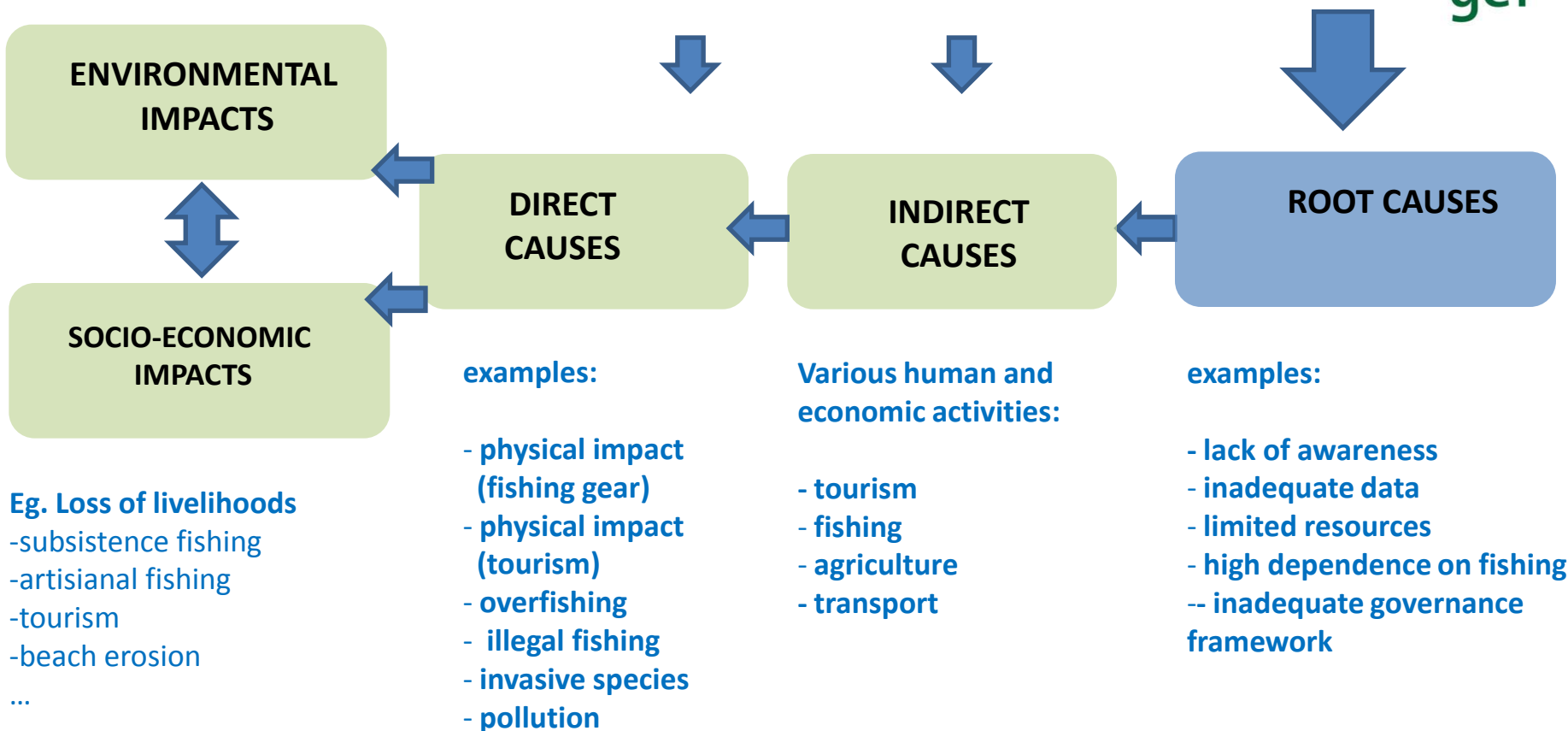
* “Climate proofing” of actions: robustness + contributions to enhancing resilience

Causal Chain Analysis



CLME SAP ACTIONS

Eg. damaged coral reefs

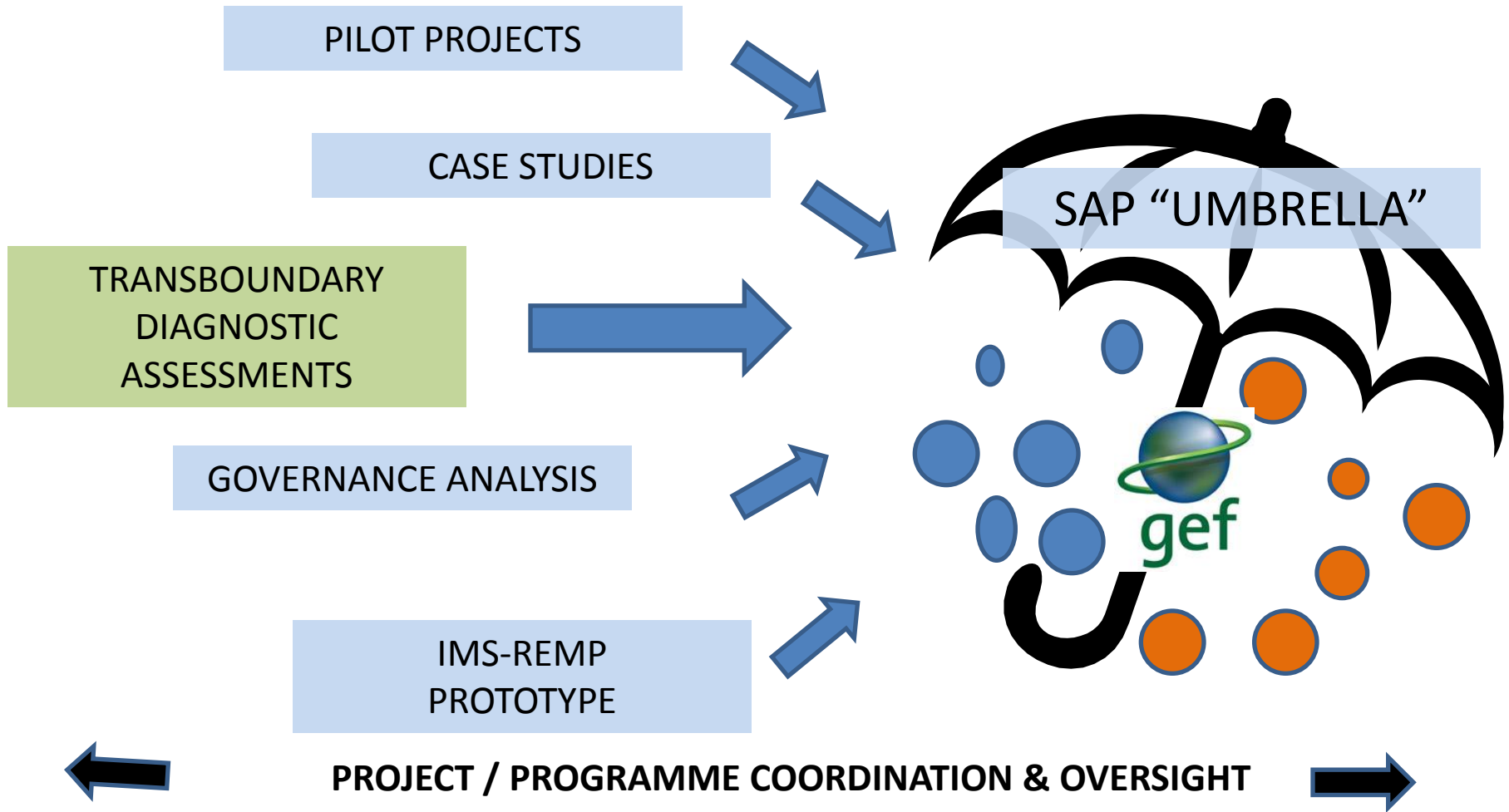


ROOT CAUSES OF THE 3 CLME⁺ ISSUES

1. Weak governance (including legal & institutional frameworks, inadequate environmental quality standards and legislation)
2. Limited human and financial resources
3. Inadequate (access to) data and information (inadequate knowledge)
4. Inadequate public awareness & participation
5. Inadequate consideration of value of ecosystem goods & services
6. Population and cultural pressures
7. Trade and external dependency (high dependence on fish for income and export earnings)

STRATEGIC ACTION PROGRAMME

The CLME SAP Umbrella



Existing Projects

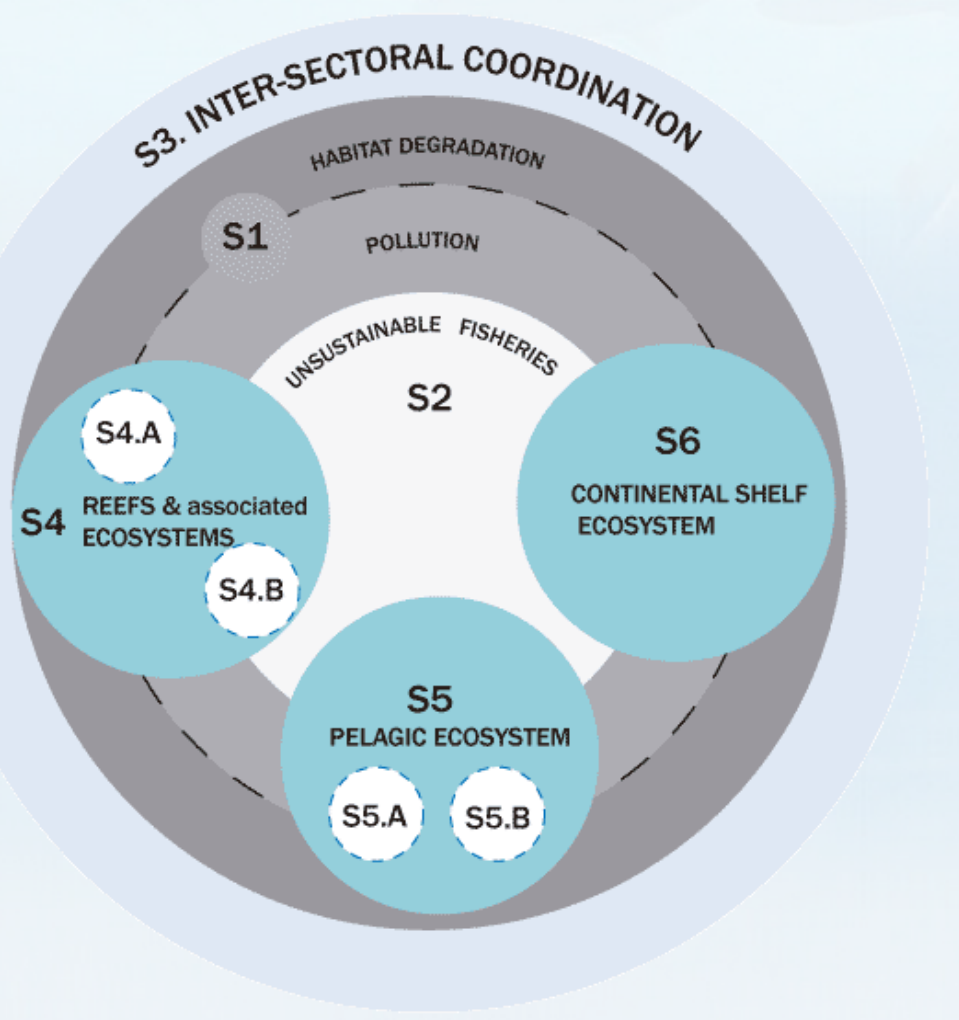
New Projects



Implementation of new projects under the SAP supported by the GEF

CLME SAP:

6 main STRATEGIES and 4 sub-strategies



S1 – Protection of the
Marine Environment

S2 – Sustainable Fisheries

S3 – Inter-sectoral Coordination

S4 – EBM, Reef Ecosystems

S4a Spiny Lobster Fisheries

S4b Queen Conch Fisheries

S5 – EAF, Pelagic Ecosystem

S5a Flyingfish Fisheries

S4b Large Pelagics Fisheries

S6 – EAF, Continental Shelf

PILOT PROJECTS AND CASE STUDIES

Pilot Projects and Case Studies

- Utilize best available information, including credible science-based assessments, in reviewing and strengthening governance/management and policy cycle processes.

- Spiny lobster pilot project (OSPESCA)
- Reef fishery and reef biodiversity pilot project (UNEP-CAR/RCU)
- Shrimp & groundfish case study – (FAO)
- Case study on the Eastern Caribbean flyingfish – (CRFM)
- Case study on the Large pelagic fishery – (CRFM)

Reef Biodiversity and Fisheries Pilot Project

- **Pilot Project Targets**

- Test models for reef fishery governance utilizing ecosystem-based management approach
- Test the concept of fish refugees within demonstration sites





Reef Biodiversity and Fisheries Pilot Project

UNOPS Partner: UNEP Caribbean Environment Programme (CEP)
Regional Coordinating Unit (RCU) - Kingston, Jamaica

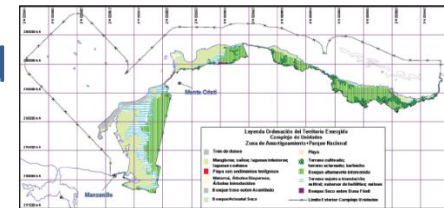
Activities completed at 4 project sites:

<i>Seaflower Marine Protected Area (MPA); Colombia</i> • 18 months	<i>Pedro Bank and SW Cay Fish Sanctuary; Jamaica</i> • 18 months	<i>Montecristi National Park; Dominican Republic</i> • 18 months	<i>Caracol Bay – Proposed MPA, Haiti</i> • 6 months
<i>Strengthening governance framework for large multi-use MPA through data analysis, awareness raising and regulatory reform</i> 	<i>Improving governance at remote large marine area with one major fisheries resource</i> 	<i>Building governance framework for a transboundary marine area within a national park</i> 	<i>Preliminary stakeholders consultations towards a governance framework at a marine transboundary site.</i> 
Project Partner: NGO (CORALINA)	Project Partner: TNC with GOJ Partners	Project Partner: Ministry of Environment	Project Partner: NGO (FoProBiM)
TOTAL: \$471,500 \$260,000 (GEF)	TOTAL: \$528,693 \$336,850 (GEF)	TOTAL: \$400,000 \$200,000 (GEF)	TOTAL: \$75,000 \$50,000 (GEF)



Reef Biodiversity and Fisheries Pilot Project Achievements

- **Integrated ecosystem-based management**
 - Scientific expeditions, data gathering and analysis & field station
 - 2 Management Plans facilitated with community input
- **Regulations analyzed/enforcement mechanisms identified**
 - Fisheries and Protected Areas legislation reviewed and promoted with stakeholder input
- **Public Awareness, Education & Outreach**
 - Awareness materials, media products, school curricula.
 - Community, local government, stakeholder consultations
- **Best Practices recorded and shared**
 - Regional workshop for exchange experiences (Colombia)
 - Protected Area data collection and management planning
- **Adaptive Management**
 - Lionfish control
 - Management planning



Fuente: UNEP 1999. Proyecto Plan de Uso Público de Reservas Nacionales Montserrat



Completion of the Pedro Bank Field & Research Station



Sub Regional Management of the Spiny Lobster Fisheries Pilot Project

- **Pilot Project Target:**
 - Establish a set of governance models and replicability plans for the Spiny Lobster and Reef Fisheries at the national and local levels which can be replicated throughout the region.





Sub Regional Management of the Spiny Lobster Fisheries Pilot Project - Results

- **Component 1**

- Stakeholders (regional/national) identified
- Regional dialogue to validate the results and training of key actors in ecosystem approaches to fisheries conducted

- **Component 2**

- Local management plans in Belize, Honduras and Panama
- Simultaneous regional closed season and monitoring

PROMOTION OF A REGIONAL GOVERNANCE MODEL

HIGH LEVEL MEETING BETWEEN FISHERY OFFICIALS FROM CARICOM-CRFM AND SICA-OSPESCA



ACHIEVEMENTS:

- Memorandum of Understanding
- Action Plan which includes the Joint Management of the Caribbean Spiny Lobster.

Sub Regional Management of the Spiny Lobster Fisheries Pilot Project – Lessons Learnt

- While recognizing the importance of integrated regional management there is a need to strengthen ownership and buy-in in countries
- Monitoring, Control and Surveillance are the weakest component of the policy cycle
- Sustainability of initiatives once projects are completed remains a challenge
- Funding and capacity building remains a priority issue (both regionally and nationally)

Case Study on Eastern Caribbean Flyingfish (*Hirundichthys affinis*) Fishery

- **Pilot Project Targets:**
 - Fill important knowledge gaps that will contribute to the final TDA
 - To inform the development of the SAP and the CLME management and governance framework which will include priority actions for the sustainability of the Eastern Caribbean flyingfish fishery.



Case Study on Eastern Caribbean Flyingfish - Results

OBJECTIVE	ACTIVITIES & RESULTS	STATUS/REPORTS
Improvement of availability of data and information	Identified data improvement needs through testing analysis tool for producing ecosystem-based management advice. Used Multi-Criteria Analysis. Management objectives were identified and prioritised to inform data priorities.	Completed. Report: CRFM Research paper Collection – Volume 6
Review and analysis of existing policy, legal and institutional arrangements and investments for management and governance of flyingfish	Analysed present state of policy, legal and institutional arrangements/ identified policy, legal and institutional reforms required for proposed EAF governance and management framework.	Completed/ CRFM Technical & Advisory Document – Number 2012/6

Case Study on Eastern Caribbean Flyingfish – Lessons Learned

- ***Improving data and information***
 - Multi Criteria Analysis is very valuable tool for promoting multiple-objective decision-making, but requires time & personnel to complete.
 - Fisherfolk keen to participate in management process.
 - Fisherfolk have good knowledge of issues & opportunities, but capacity to communicate must be improved.
 - Regular stakeholder consultations needed to guarantee accurate identification of management & data priorities, and cooperation to achieve set goals.
 - Shared resource: national & regional data and information coordination necessary
- ***Analysis of existing policy, legal and institutional arrangements and investments***
 - National policy and legislation instruments are weak & need to be updated to incorporate obligations under the various regional & int. Fisheries agreements. Home-grown support and commitment to fisheries management aims required for successful reform. CRFM & CFP agreements are strong and hold good potential for regional management functions.

Case Study on Eastern Caribbean Flyingfish – Best Practices

- ***Improving data and information***
 - proved valuable to use photo images to talk with fishers about management objectives, and to get them to debate the issues
 - proved valuable to use simple photo ordering system with fishers to prioritise management objectives and hence data priorities
 - MCA was a good choice for a decision support tool for management of Eastern Caribbean flyingfish
- ***Analysis of existing policy, legal and institutional arrangements and investments***
 - Regional examples exist within the OECS and CARICOM fora regarding fishing agreements, coordination of fisheries management efforts (OECS common surveillance zone, CRFM & CFP agreements).

Pilot Project Targets

- Fill important knowledge gaps that will contribute to the final TDA & SAP
- Inform the development of the SAP and the CLME management and governance framework which will include priority actions for the sustainability of the Large Pelagic fishery, including regional and international (ICCAT) cooperation.



Case Study on Large Pelagics - Results

OBJECTIVE	ACTIVITIES AND RESULTS	STATUS/REPORTS
Region-wide assessment of key regionally-distributed species	Prepared regional datasets for dolphinfish & blackfin tuna. Regional analysis of dolphinfish fishery completed. Involved scientists from USA, Martinique, Venezuela, Brazil, & Canada	Completed. CRFM Fishery Reports 2010 – 2012
Stakeholder analysis, including an assessment of their capacity to take part in the sub-regional management process	Identified and engaged stakeholder groups/ documented their present role in fishery activities, capacity, and capacity-building needs for participation in proposed EAF governance and management framework.	Completed / CRFM Technical & Advisory Document – Number 2012/9

Case Study on Large Pelagics – Lessons Learnt

- ***Region-wide assessment of key regionally-distributed species***
 - CRFM scientific meeting provided good regional forum for CRFM-scale regional assessment.
 - In the future, an agreed formal regional forum will be required to ensure data contribution and participation from all states (RFMO &/or ICCAT management partnership)
- ***Stakeholder analysis***
 - Lack of information/ interest by stakeholders – require capacity building, communication strategy, participation strategy
 - Short history of employing participatory processes in management
 - Current policies may not always support participatory management though some are changing – institutionalization of this is important
 - Lack of funds & organization to use participatory processes

Case Study on Large Pelagics – Best Practices

- ***Region-wide assessment of key regionally-distributed species***
 - CRFM scientific meeting facilitated important networking of scientific experts for generation of valuable ERAEF outputs.
- ***Stakeholder analysis***
 - Existence of Champions
 - Regional organisations have high capacity, interest and influence, and have potential for further development and strengthening .
 - regional organizations can increasing knowledge on facilitating participatory governance
 - Willingness and trust of stakeholders are present & essential

Case Study Targets:

- To fill knowledge gaps and contribute to the preparation of the CLME Strategic Action Programme (SAP), with priority actions for the sustainable management of the shrimp and groundfish fisheries



Case Study Shrimp & Groundfish - Results

- Available information on bio-economic analysis and on stock status of the S&GF fisheries in the sub-region collated
- List of issues and potential solutions negotiated and discussed (4 national consultations) (ex. declining stocks, lack of social security, poor enforcement, pollution)
- Basis for a sub-regional EAF management plan laid by the case study
- Priorities for the CLME Strategic Action Plan developed and agreed through a bottom-up process (1 sub-regional workshop)

Case Study Shrimp & Groundfish- Lessons Learnt/Best Practices

- Need for a sub-regional (Guiana – Brazil) decision mechanism
- Piracy appears to be an immediate problem which could be reduced with effective Monitoring, Control and Surveillance (Navy/coast guard; marine police, judiciary, fisheries authorities)
- Wide stakeholder consultations & fostering inter-sectoral dialogue
- SAP is based on the outputs of bottom-up consultations (conveying ground problems and potential solutions from stakeholders to policy makers)

Governance Analysis

Regional Governance Framework for the CLME⁺

- **RGF Targets**

- Pilot the development of regional science policy interface for ocean governance
- Assess ocean governance arrangements and functionality in the WCR with specific reference to the three fishery ecosystems
- Propose appropriate regional ocean governance framework options for input to the SAP.



Regional Governance Framework for the CLME⁺

- Valuation of marine ecosystem goods and service
- Assessment of perspective on and needs for a regional science policy interface
- Governance analyses in pilot projects and case studies
- Assessment of regional organisations in ocean governance
- Proposal for a Regional Governance Framework

Regional Governance Framework for the CLME⁺ Next Steps

- **Countries and organisations of the WCR accept and adopt the network approach to regional ocean governance.**
 - Should be a turning point in the regional conversation about ocean governance from sectoral and organisation focused to holistic and ecosystem based
- **Building and strengthening activities involving and engaging organisation to plan how they will proceed with:**
 - Maintaining current roles
 - Expanding mandate and activities to take up appropriate functions within the framework
 - Developing interactions and linkages essential for framework functioning as an effective regional ocean governance mechanism.

IMS/ REMP Prototype

- **IMS/REMP Target:**
 - Develop & establish a monitoring and evaluation framework to track fisheries and environmental trends and to support agreed decision framework (s).



- Beta version IMS/REMP online
- Proposal for indicators (3X3 matrix, 6 strategies, SAP status)
- Proposal for CLME Data Policy
- Demonstration Projects
 - IMS for Integrated Coastal Area Management
 - IMS for Economic Valuation Projects (English and Spanish)
 - IMS for management of Spiny Lobster

SAP Links to REMP:

REMP component:

M&E of SAP Implementation

Indicators allow for the identification of the Baseline and for the setting of short (5 years) and medium-term (10 years) Targets for the different Strategies, Actions and Activities.

Targets reflect concrete products ("outputs") and results ("outcomes") that are expected from the execution of respectively Activities and Actions.

Baseline, Indicators and Targets allow for tracking of the progress in the implementation of the CLME+ SAP

- PROCESS INDICATORS
- STRESS REDUCTION INDICATORS
- ENVIRONMENTAL INDICATORS
- SOCIO ECONOMIC INDICATORS

OTHER INDICATORS:

Governance arrangements architecture
Social Justice....

Information Management System/ Regional Environment Management Programme Sub-Project –Lessons Learnt/Best Practices

- Harmonized monitoring of marine-coastal ecosystems and environment, including basins
- Harmonized monitoring of fisheries industry and effort
- Strengthening of data and information management, from institutional to regional
- Identification and recovery of relevant historical data and information
- Strengthening of data and information management from institutional to regional level

Project Management

Establishment and functioning of a well-staffed Project Coordinating Unit to execute, coordinate, support & provide oversight on the implementation of CLME project activities



WWW.CLMEPROJECT.ORG



CARIBBEAN
LARGE MARINE ECOSYSTEM
PROJECT

[SITEMAP](#)

[ESPAÑOL](#)

Google™ Búsqueda personalizada



[HOME](#)

[ABOUT CLME](#)

[FAQS](#)

[INTRANET](#)



www.clmeproject.org

SUSTAINABLE MANAGEMENT OF THE SHARED LIVING MARINE RESOURCES
OF THE CARIBBEAN LARGE MARINE ECOSYSTEM (CLME) AND ADJACENT REGIONS

[DIAGNOSTIC ANALYSES](#)

[CASE STUDIES](#)

[PILOT PROJECTS](#)

[REGIONAL GOVERNANCE](#)

[MONITORING AND INFORMATION](#)



New report unveils innovative approach to saving global oceans

[International Waters Portfolio](#)



DOCUMENTS CENTER



EVENTS



NEWS



RELATED LINKS

CLME INFORMATION MANAGEMENT SYSTEM

IMS/PORTAL

[CLICK HERE TO ACCESS](#)

STRATEGIC ACTION PROGRAMME

CLME+ SAP

A ROADMAP TOWARDS SUSTAINABLE MANAGEMENT

- ☐ **Sound but realistic monitoring and evaluation procedures**
- ☐ **Stable and strong Project Coordination Unit essential**
- ☐ **Include on-the-ground components/activities**
- ☐ **Allow for substantial country and stakeholder involvement (including SAP ownership)**
- ☐ **Build upon and strengthen already established mechanisms with proven track record**

- ❑ SAP Core Development Team: Regional Orgs.
- ❑ CLME is not alone: exchange with, and learn from other Projects / LMEs
- ❑ Establish synergies and complementarity