

Grounding coral restoration planning in MPA sustainable financing



Emma Doyle, MPAConnect Coordinator
Key West, June 12, 2024

Photos by: CONANP¹, Fundacion Cayos Cochinos: Nicole Webster², TIDE³, Fundacion Cayos Cochinos: Shelley Wilson⁴

Presentation outline

1. Sustainable financing
2. MPACONnect budget template
3. Getting the budget started from coral restoration goals
 - > reality check for roadmap
 - > position the MPA to better manage coral restoration



Photo: F. De Weerd



Photo: C. O'Sullivan



A network for learning among Caribbean marine resource managers



Challenges and needs in management of coral restoration

	Mentions
Technical capacity	21
Funding	19
Planning	15
Staff shortages	15
Partnership building	11
Other threats to reefs	7
Training/sharing	5
Equipment	5
Communications/outreach/support	5
Monitoring	4
Permitting	3
Herbivore co-cultivation	3
Other	2



Photo: E. Doyle



A network for learning among Caribbean marine resource managers

What is MPA sustainable financing?

- Ability to maintain **stable and sufficient long-term** financial resources
- **Diverse and resilient mix** of financing streams
- Cover **full costs** of effectively and efficiently managed MPAs
- Financing that recognizes and supports the **benefits** biodiversity provides to **communities and the blue economy**





This message is for @Arjan De Groene:
We have Panda. He is safe for now but
we have requests. In 24 hours we want
funded: A new shark tagging project
The Aruba burrowing owl project Fla...



A network for learning among Caribbean marine resource managers

EXAMPLE MPA										Budget - Year One				
Activity Code	Strategic Level Management Goals/Outcomes	Priority level	Main Operational Activity	Sub-activity	Program Area (select from list below)	Budget item (select from list below)	Cost Calculation Description	Unit	Number of units	Cost per unit	Total cost (Year 1)	Funding secured	Funder	Balance to be raised
	MANAGEMENT OBJECTIVE 1: eg. EFFECTIVE PROTECTION OF MARINE NATURAL RESOURCES													
	1.1 Update the MPA management plan	H	1.1.1 Incorporate latest coral reef monitoring findings into management plan	Desk work by research assistant	Research and monitoring	Personnel	1 week of research assistant's time	Per month	25%	\$2,000	\$500	\$500	Donor x	\$0
		H	1.1.2 Hold stakeholder consultation meetings to share monitoring findings with buffer communities	Travel for community meetings	Research and monitoring	Consumables	10 gals round trip from HQ to communities plus 5 gallons spare (e.g. for follow up with individual community) x \$13/gallon	Per gallon	15	\$13	\$195	\$0		\$195
	1.2 Implement MPA enforcement strategy	H	1.2.1 Run high season patrol program	Head Ranger salary	Enforcement	Personnel	1 head ranger*6 months full time @ \$2000 /month	Per month	6	\$2,000	\$12,000	\$12,000	MPA	\$0
		H		Ranger salaries	Enforcement	Personnel	3 rangers*6 months full time @ \$1000/month	Per month	18	\$1,000	\$18,000	\$18,000	MPA	\$0
		H		Ranger over-time contingency	Enforcement	Personnel	Approx 10% of staff salaries @ \$5000/month	Per month	10%	\$5,000	\$500	\$500	MPA	\$0
		H		Fuel	Enforcement	Consumables	Average monthly estimate in high season	Per month	6	\$1,000	\$6,000	\$3,000	Partner (Fisheries)	\$3,000
		H		Boat maintenance - parts	Enforcement	Consumables	Average monthly estimate in high season	Per month	6	\$250	\$1,500	\$0		\$1,500
	MANAGEMENT OBJECTIVE 2: eg. STAKEHOLDER ENGAGEMENT													
	2.1 Implement MPA Junior Ranger program during summer school holidays	M	2.1.1 Coordination of program	Planning, scheduling and communications with schools and parents	Community development	Personnel	2 weeks of education officer's time	Per month	50%	\$2,000	\$1,000	\$1,000	Donor x	\$0
		M	2.1.2 Transport for kids	Bus pick up and drop off, transport	Community development	Travel	1 month of education officer's time	Per month	1	\$2,000	\$2,000	\$2,000	In-kind (bus co)	\$0
		M	2.1.3 Equipment and supplies	Snorkel equipment	Community development	Equipment	15 snorkel sets @ \$20 per set	Per set	15	\$20	\$300	\$0		\$ 300
		M		Lunches and other supplies	Community development	Consumables	8 days of lunches and water for 15 kids @ \$10 per lunch	Per lunch	120	\$10	\$1,200	\$0		\$ 1,200
	2.2 Run social media outreach and marketing campaign	H	2.2.1 Coordination of program	Desk work by communications officer	Communications	Personnel	1 communications officer	Per month	12	\$750	\$9,000	\$9,000	MPA	\$ -
	MANAGEMENT OBJECTIVE 3: eg. EFFECTIVE ADMINISTRATION													
	3.1 MPA Networking	L	3.1.1 Participate in regional conference	Travel to conference				Per month	1	\$2,100	\$2,100	\$0	MPA	\$ 2,100
		L		Conference fees				Per month			\$0	\$0	MPA	\$ -
		L		MPA manager time preparation, travel participation				Per month	25%	\$3,500	\$875	\$875	MPA	\$ -
Total												\$46,875		\$8,295



EXAMPLE MPA				
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MANAGEMENT OBJECTIVE 1: eg. EFFECTIVE PROTECTION OF MARINE NATURAL RESOURCES				
	1.1 Update the MPA management plan	H	1.1.1 Incorporate latest coral reef monitoring findings into management plan	Desk work by research assistant
		H	1.1.2 Hold stakeholder consultation meetings to share monitoring findings with buffer communities	Travel for community meetings
	1.2 Implement MPA enforcement strategy	H	1.2.1 Run high season patrol program	Head Ranger salary
		H		Ranger salaries
		H		Ranger over-time contingency
		H		Fuel
		H		Boat maintenance - parts
MANAGEMENT OBJECTIVE 2: eg. STAKEHOLDER ENGAGEMENT				
	2.1 Implement MPA Junior Ranger program during summer school holidays	M	2.1.1 Coordination of program	Planning, scheduling and communications with schools and parents
		M	2.1.2 Transport for kids	Bus pick up and drop off, transport
		M	2.1.3 Equipment and supplies	Snorkel equipment
		M		Lunches and other supplies
	2.2 Run social media outreach and marketing campaign	H	2.2.1 Coordination of program	Desk work by communications officer

	EXAMPLE MPA						
Activity Code	Strategic Level Management Goals/Outcomes	Priority level	Main Operational Activity	Sub-activity	Program Area (select from list below)	Budget item (select from list below)	Cost Calculation Description
	MANAGEMENT OBJECTIVE 1: eg. EFFECTIVE PROTECTION OF MARINE NATURAL RESOURCES						
	1.1 Update the MPA management plan	#	1.1.1 Incorporate latest coral reef monitoring findings into management plan	Desk work by research assistant	Research and monitoring	Personnel	1 week of research assistant's time
		#	1.1.2 Hold stakeholder consultation meetings to share monitoring findings with buffer communities	Travel for community meetings	Research and monitoring	Consumables	10 gals round trip from HQ to communities plus 5 gallons spare (e.g. for follow up with individual community) x \$13/gallon
	1.2 Implement MPA enforcement strategy	#	1.2.1 Run high season patrol program	Head Ranger	Program Areas		Budget Items
		#		Ranger salary	•Enforcement		•Personnel
		#		Ranger over	•Communications		•Consumables (materials and supplies)
		#		Fuel			
		#		Boat maintenance			
	MANAGEMENT OBJECTIVE 2: eg. STAKEHOLDER ENGAGEMENT				•Research and Monitoring		•Equipment and Infrastructure
	2.1 Implement MPA Junior Ranger program during summer school	M	2.1.1 Coordination of program	Planning, school communication	•Community Development		•Contracts
					•Natural Resources Management		•Travel

Budget - Year One							
Cost Calculation Description	Unit	Number of units	Cost per unit	Total cost (Year 1)	Funding secured	Funder	Balance to be raised
1 week of research assistant's time	Per month	25%	\$2,000	\$500	\$500	Donor x	\$0
10 gals round trip from HQ to communities plus 5 gallons spare (e.g. for follow up with individual community) x \$13/gallon	Per gallon	15	\$13	\$195	\$0		\$195
1 head ranger*6 months full time @ \$2000 /month	Per month	6	\$2,000	\$12,000	\$12,000	MPA	\$0
3 rangers*6 months full time @ \$1000/month	Per month	18	\$1,000	\$18,000	\$18,000	MPA	\$0
Approx 10% of staff salaries @ \$5000/month	Per month	10%	\$5,000	\$500	\$500	MPA	\$0
Average monthly estimate in high season	Per month	6	\$1,000	\$6,000	\$3,000	Partner (Fisheries)	\$3,000
Average monthly estimate in high season	Per month	6	\$250	\$1,500	\$0		\$1,500
2 weeks of education officer's time	Per month	50%	\$2,000	\$1,000	\$1,000	Donor x	\$0
Bus fares for group	Per month	1	\$2,000	\$2,000	\$2,000	In-kind (bus co)	\$0
15 snorkel sets @ \$20 per set	Per set	15	\$20	\$300	\$0		\$ 300
8 days of lunches and water for 15 kids @ \$10 per lunch	Per lunch	120	\$10	\$1,200	\$0		\$ 1,200
1 communications officer half time for 12 months @ \$1500 per month full time equivalent	Per month	12	\$750	\$9,000	\$9,000	MPA	\$ -
Airfare \$750, hotel \$1000 total, per diem \$250	Lumpsum	1	\$2,100	\$2,100	\$0	MPA	\$ 2,100

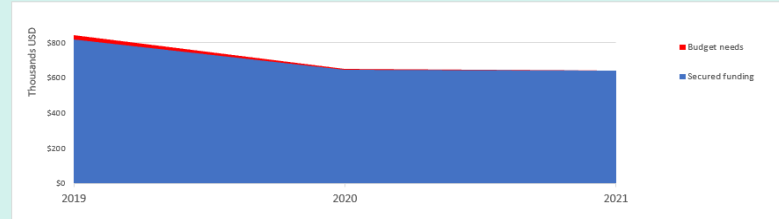
Budget - Year One									
Program Area (select from list below)	Budget item (select from list below)	Cost Calculation Description	Unit	Number of units	Cost per unit	Total cost (Year 1)	Funding secured	Funder	Balance to be raised
Research and monitoring	Personnel	1 week of research assistant's time	Per month	25%	\$2,000	\$500	\$500	Donor x	\$0
Research and monitoring	Consumables	10 gals round trip from HQ to communities plus 5 gallons spare (e.g. for follow up with individual community) x \$13/gallon	Per gallon	15	\$13	\$195	\$0		\$195
Enforcement	Personnel	1 head ranger*6 months full time @ \$2000 /month	Per month	6	\$2,000	\$12,000	\$12,000	MPA	\$0
Communications	Travel	Airfare \$750, hotel \$1000 total, per diem \$350 total	Lumpsum	1	\$2,100	\$2,100	\$0	MPA	\$ 2,100
Communications	Travel	Registration \$500	Lumpsum			\$0	\$0	MPA	\$ -
Communications	Personnel	One week of MPA manager's time	Per month	25%	\$3,500	\$875	\$875	MPA	\$ -
							\$46,875		\$8,295

Overview per objective (fictional data)

Overview per program area

Overview per budget item

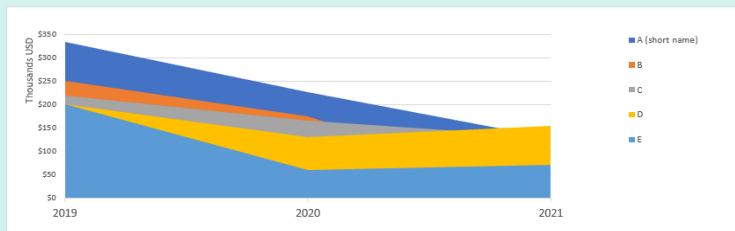
Secured funding vs budget needs



See table

Budget overview per objective (NOTE: data on budget per *objective* is not available. The data presented by objective in this section is based on fictional numbers)

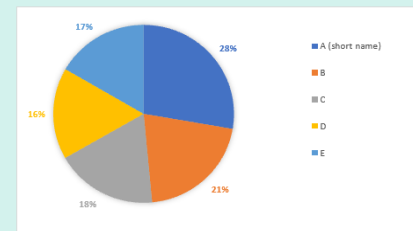
Budget needs per objective over time



Back to top

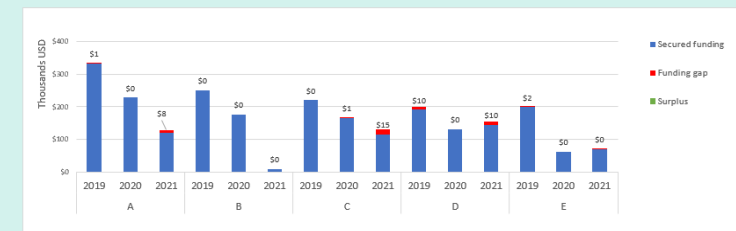
See table

Budget needs per objective 2019



See table

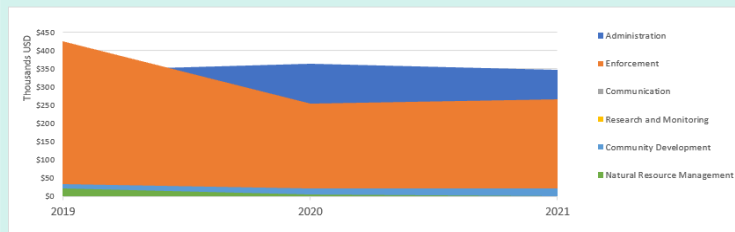
Secured funding vs budget needs per objective per year



See table

Budget overview per program area

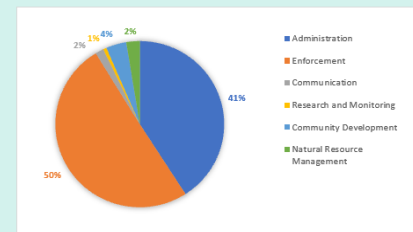
Budget needs per program area over time



Back to top

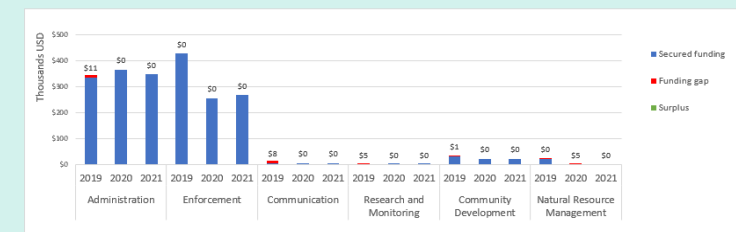
See table

Budget needs per program area 2019



See table

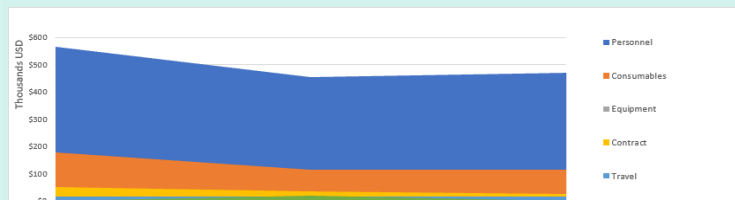
Secured funding vs budget needs per program area per year



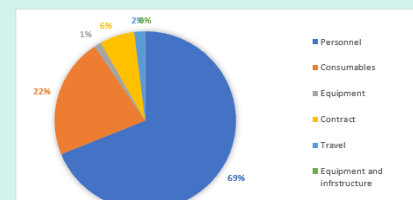
See table

Budget overview per budget item

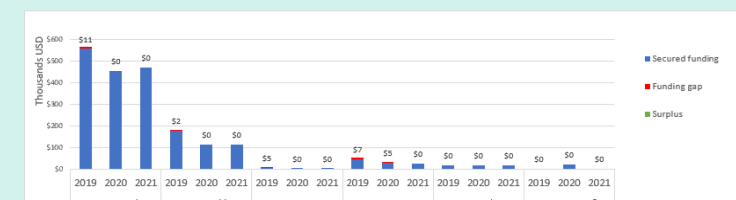
Budget needs per budget item over time



Budget needs per budget item 2019

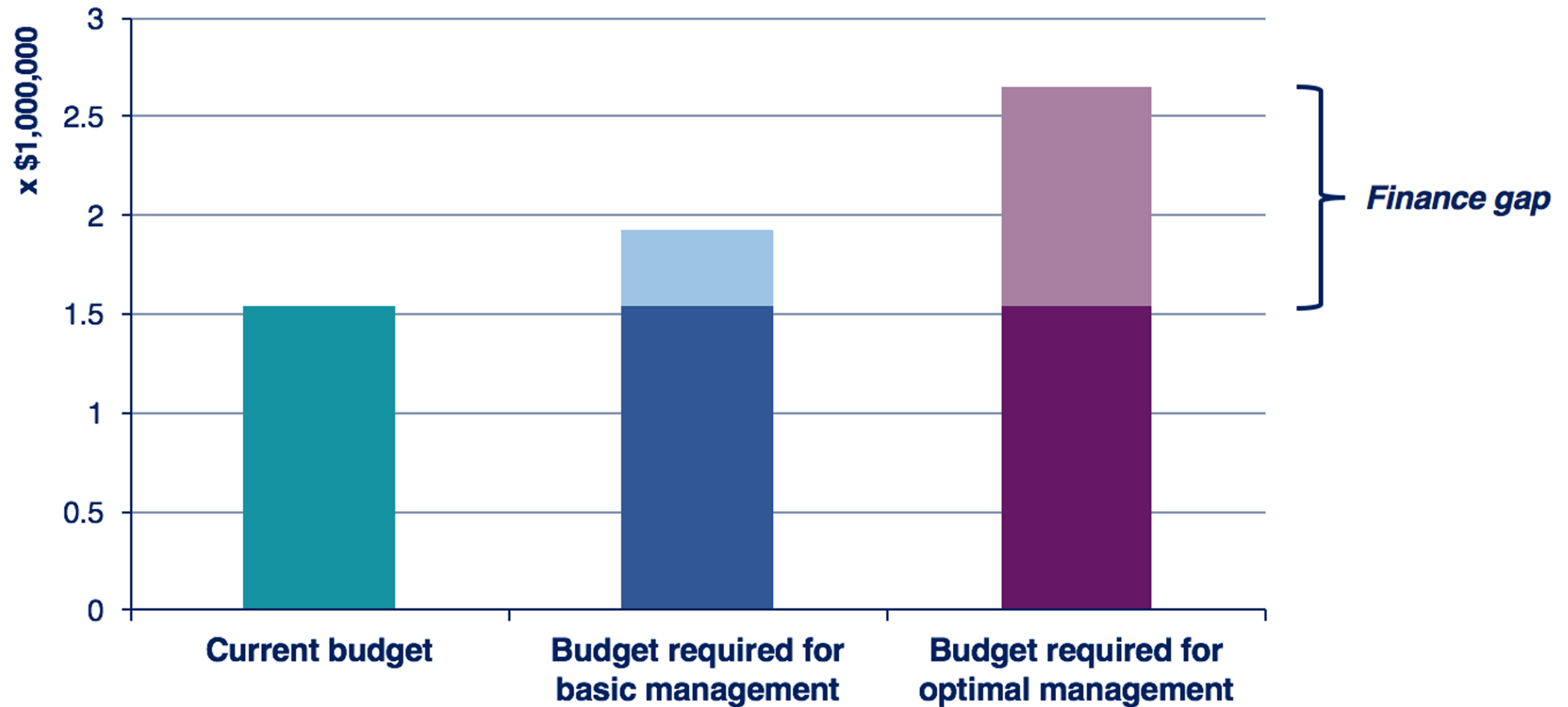


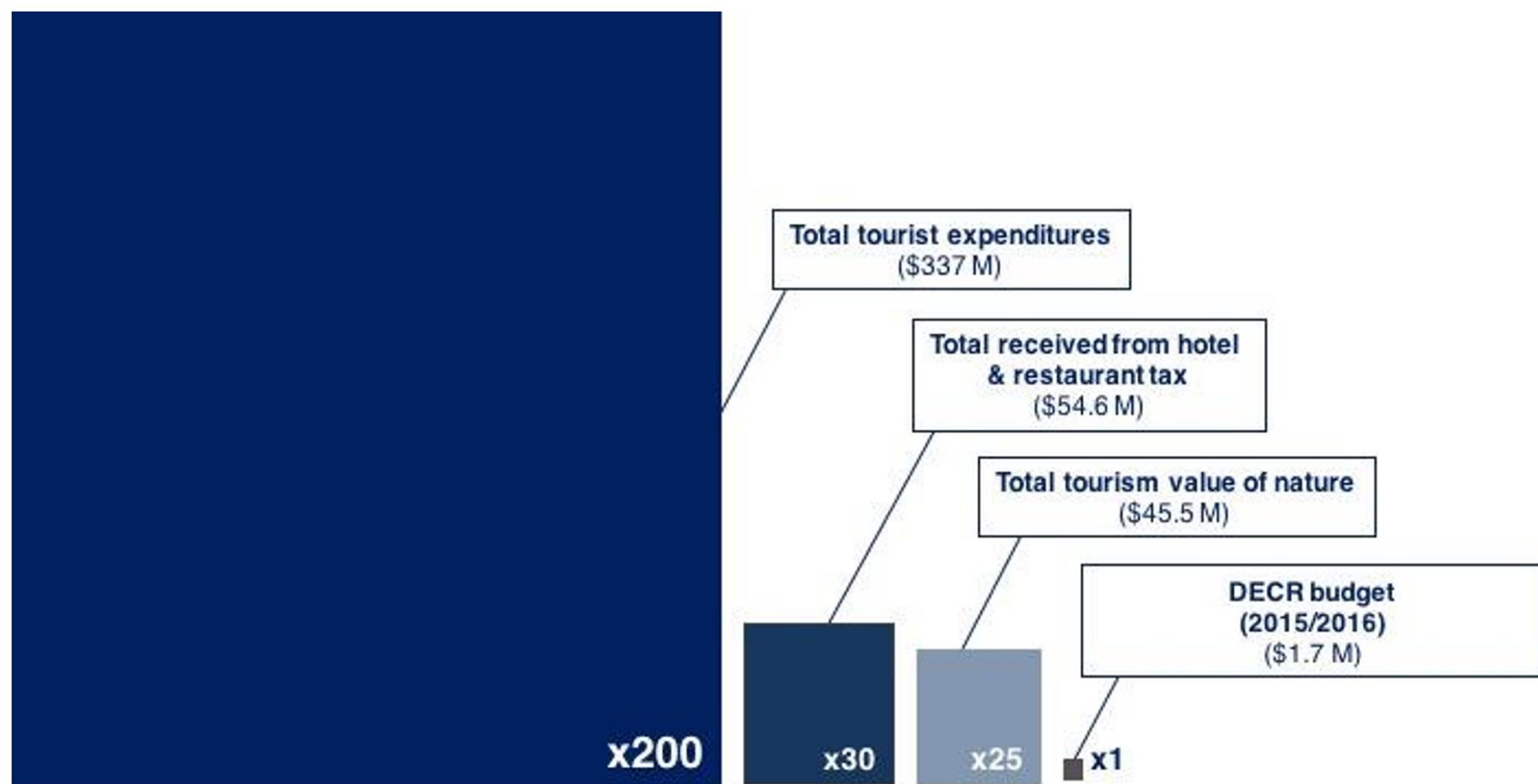
Secured funding vs budget needs per budget item per year



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Management scenarios for budgeting





EXAMPLE MPA		Budget - Year One												
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MANAGEMENT OBJECTIVE 1: eg. EFFECTIVE PROTECTION OF MARINE NATURAL RESOURCES														
	1.1 Update the MPA management plan	H	1.1.1 Monitor coral reef plan	Desk work by research assistant	Research and monitoring	Personnel	1 week of research assistant's time	Per month	25%	\$2,000	\$500	\$500	Donor x	\$0
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		H		Fuel	Enforcement	Consumables	Average monthly estimate in high season	Per month	6	\$1,000	\$6,000	\$3,000	Partner (Fisheries)	\$3,000
		H		Boat maintenance - parts	Enforcement	Consumables	Average monthly estimate in high season	Per month	6	\$250	\$1,500	\$0		\$1,500
MANAGEMENT OBJECTIVE 2: eg. STAKEHOLDER ENGAGEMENT														
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	3.1 MPA Networking	L	3.1.1 Participate in regional conference	Travel to conference				Per month	1	\$2,100	\$2,100	\$0	MPA	\$ 2,100
		L		Conference fees				Per month			\$0	\$0	MPA	\$ -
		L		MPA manager time preparation, travel participation				Per month	25%	\$3,500	\$875	\$875	MPA	\$ -
Total												\$46,875		\$8,295





Expanding coral restoration in Caribbean Marine Protected Areas

AGRRA and MPACConnect have teamed up in a new 3-year partnership, entitled the “**Caribbean Restoration Roadmaps Initiative**” to expand coral restoration in Marine Protected Areas (MPAs) and beyond. In response to the recent stony coral tissue loss disease outbreak and coral bleaching events in the Caribbean, there is an urgent need to expand the number of restoration efforts and coral species to maintain genetic diversity, reef structure and ecosystem function. Together with marine resource managers and our Restoration Advisory Team, our long-term goal is to increase regional collaboration to scale-up the rescue and recovery of Caribbean corals and enhance reef ecosystems.

Objectives:

- Increase coral populations and improve reef ecosystem function
- Develop science-based and management-relevant restoration roadmaps
- Share and increase coral recovery technical expertise
- Synergize and catalyze restoration efforts within Caribbean MPAs to increase recovery potential regionally



21 elements of management capacity



Financing



Enforcement



Bio-physical
monitoring



Fisheries
management



Management
planning



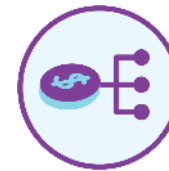
Outreach/
education



On-site
management



MPA
effectiveness



Sustainable
livelihoods



Pollution
control



Habitat
restoration



Legal
framework



Partnerships



Stakeholder
engagement



Economic
valuation



Resilience to
climate change



Organizational
management



SocMon



Sustainable
tourism



Boundaries

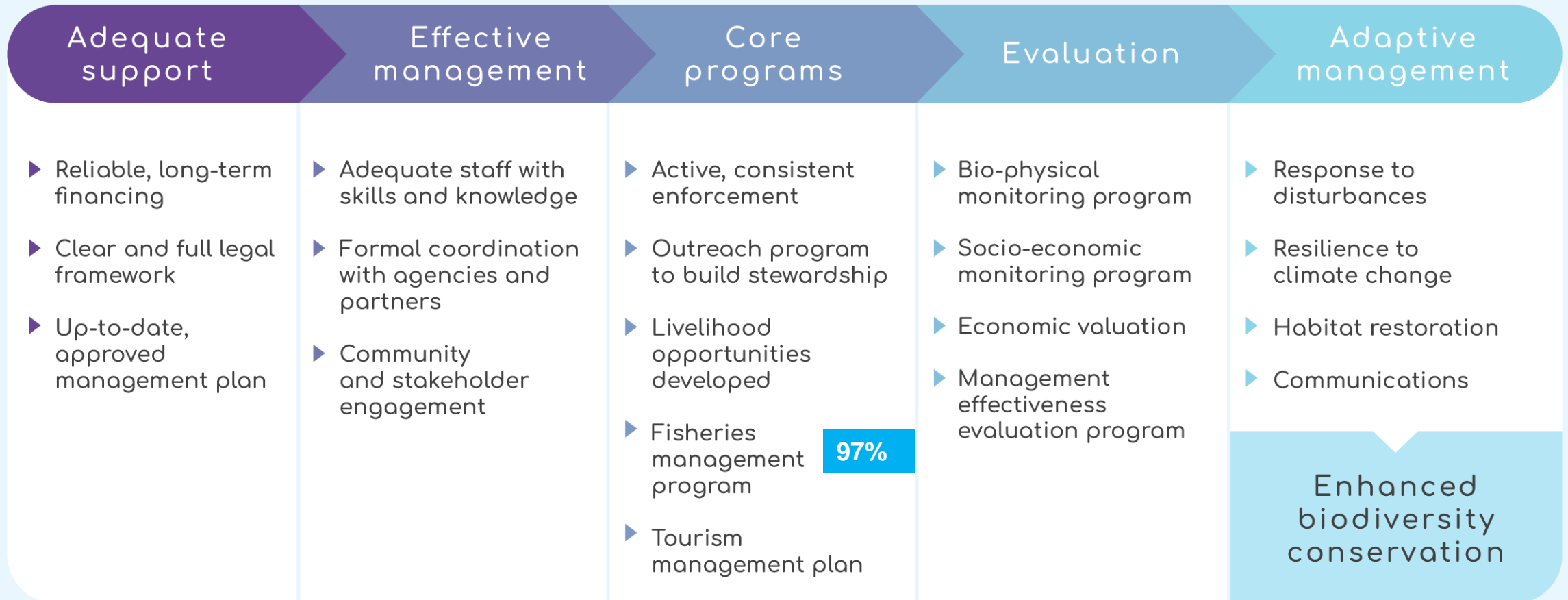


Disturbances





Elements of effective MPA implementation



ENSURING SUSTAINABLE FISHERIES FOR THE

future

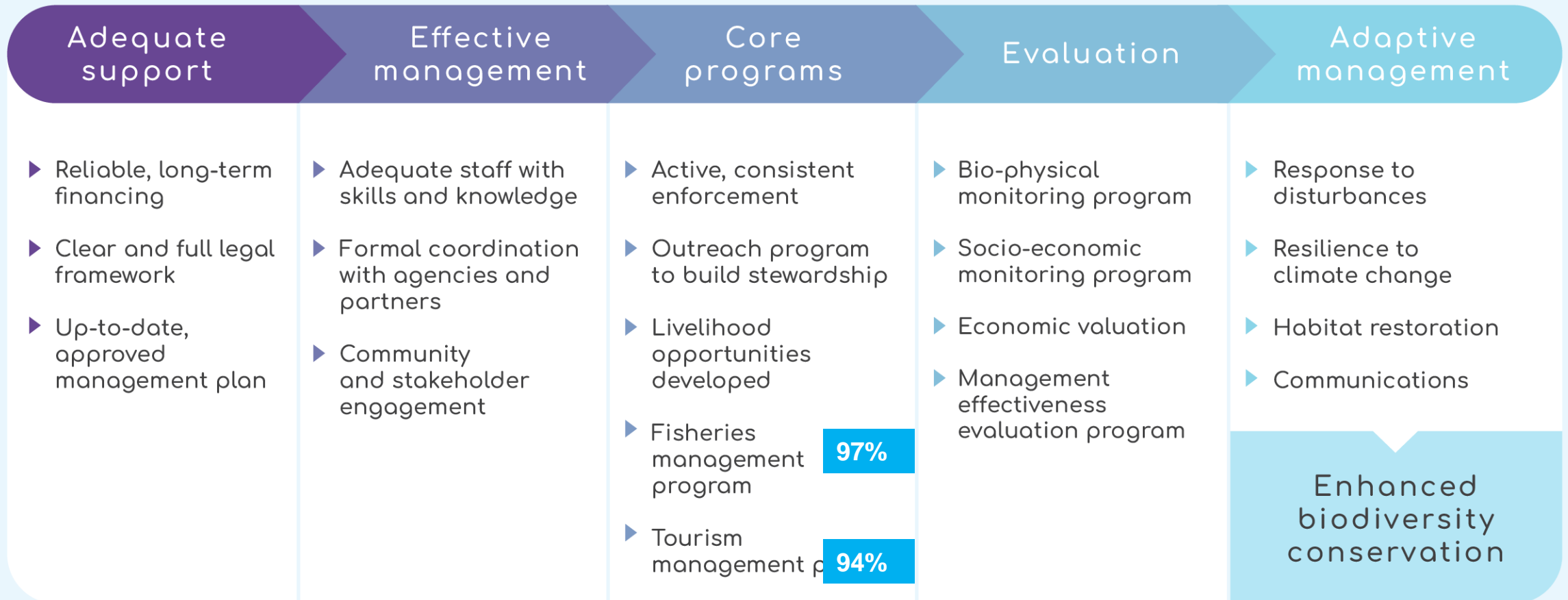


SUSTAINABLE

financing



Elements of effective MPA implementation





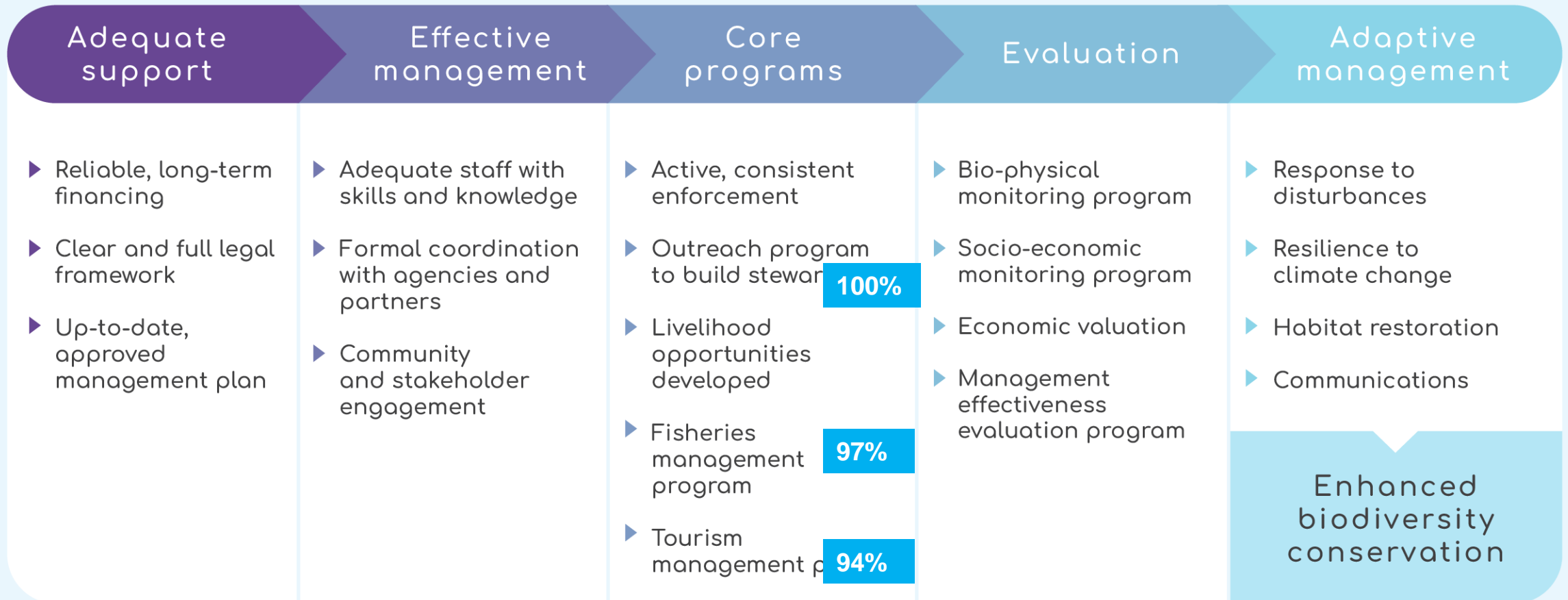
SUPPORTING

Sustainable tourism

REEF SECURED
rest assured



Elements of effective MPA implementation





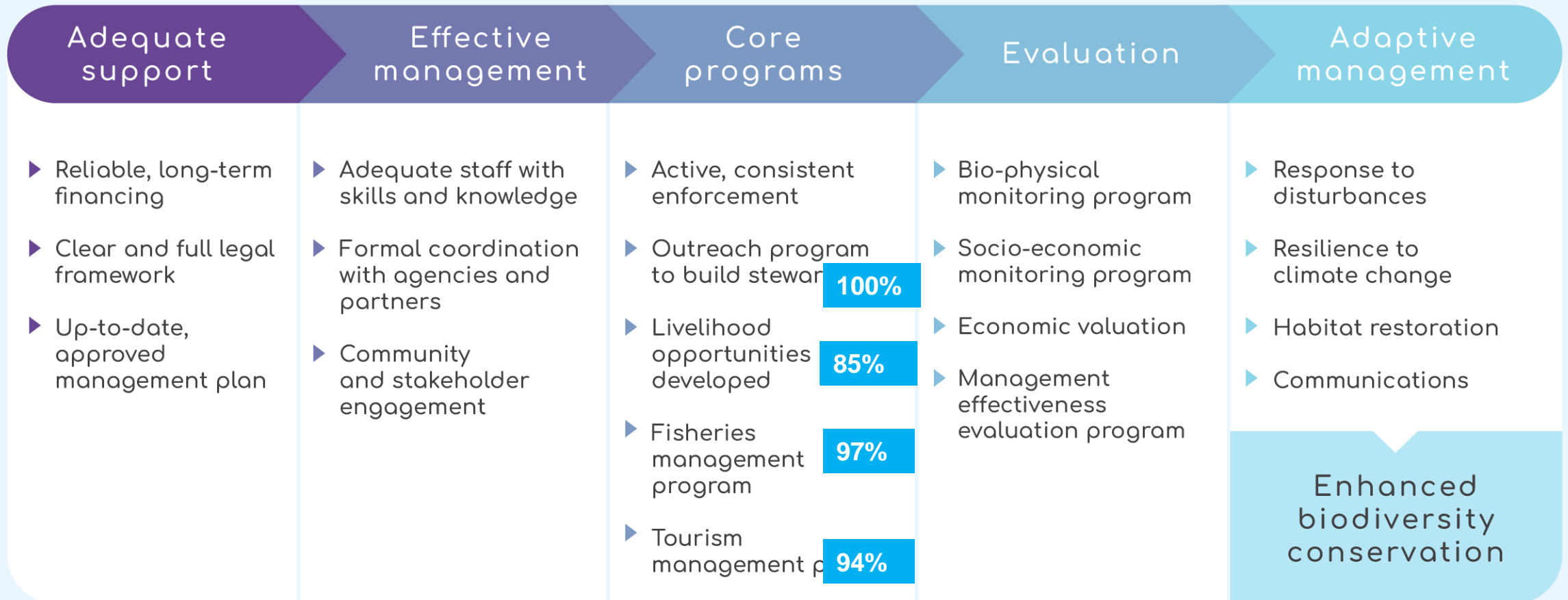
ENHANCING STEWARDSHIP FOR *a sustainable future*

SUSTAINABLE

financing



Elements of effective MPA implementation





Realities OF SUSTAINABLE LIVELIHOODS

SUSTAINABLE
financing



Approaches to coral restoration in MPAConnect

	Mentions
In-situ nursery	19
Outplanting in MPA	9
Assisted reproduction	9
Ex-situ nursery	4
Other approach (reef balls, biorock)	4
Grounding response	3
Microfragmentation	2
Herbivore co-cultivation	2

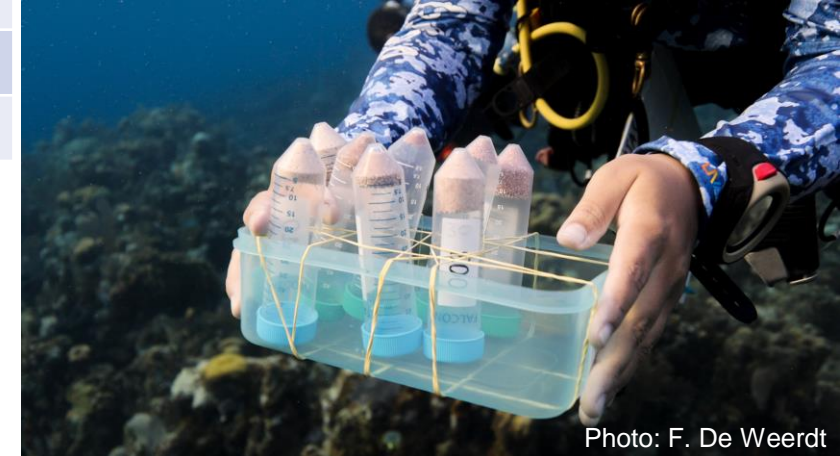


Photo: F. De Weerd



A network for learning among Caribbean marine resource managers

Objectives of coral restoration

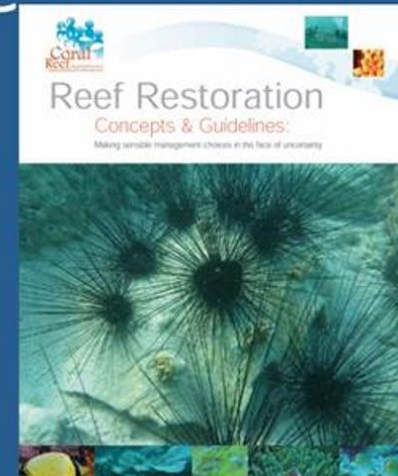
Assist natural recovery by:

Restoration = bringing a degraded ecosystem back to original condition





Rehabilitation = improving ecological value of a degraded site

Remediation = repairing damage to a site

Aim for restoration, but often we're happy with some rehab



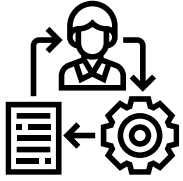
MPAConnect Coral Rescue Planning Canvas

5 Actions What actions can you take to realize each opportunity and implement this approach to coral rescue at your site?	4 Opportunities What opportunities exist at your site to implement this approach to coral rescue?	1 Overall goal What is the overall goal of coral rescue at the reefs that you manage or work on? Start 2 Selected approach What is your selected approach to coral rescue? This can also be your selected cafe table. 3 Specific objectives What are your aims or objectives in applying this approach to the coral reefs that you manage or work on?	6 Challenges What challenges need to be overcome to implement this approach to coral rescue at your site? 	7 Actions What actions can you take to overcome each challenge and implement this approach to coral rescue at your site?
8 List corals Which species of corals do you want to focus on to achieve your objective and why? See species selection criteria handout.	9 Permits needed What permits might be required? 	10 Resources available What resources do you already have to enable you to implement this approach at your site?	11 Resources needed What additional resources do you need to enable you to implement this approach at your site?	
12 List partners Identify the potential partners who can work with you to implement this approach to coral rescue at your site. 	14 Activities to implement What activities are required to implement this approach?		15 Next steps at home What are the next steps that you can take at home to implement this approach to coral rescue at your site? 	
13 Financing mechanisms What are some potential financing mechanisms to generate funding to implement this approach to coral rescue?	17 Risk Management How to reduce the impact of hurricanes, avoid marine debris etc. 18 Re-visit your specific aims Let's revisit your goal from Question 1 - what are you now feasibly seeking to achieve from coral rescue for the coral reefs that you manage or work on? Finish	16 This week @Reef Futures What can you do this week while at Reef Futures to make progress towards implementing this coral rescue approach?		



A partnership between:





Management team

The management team - executive director, programme director/manager, operations manager, and communication manager, among others.

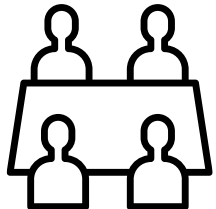
- Supervise the functioning of the organization as a whole;
- Set priorities;
- Formulate the organizational strategy – basis for budgeting;
- Monitor and present the impact of investments.



Administrative staff

The administrative staff - major contributor to the financial budgeting and planning process.

- Estimate figures and make forecasts;
- Track and report on spend.



Board or advisory committee

The Board or advisory committee – decision-making on the organization’s strategy and methods to generate funding to meet objectives.

- Members bring expertise and input from various sectors to the table and are can facilitate collaboration with other stakeholders;
- Knowledge and networks can be of great value when selecting and implementing financing solutions.

A top-down view of a group of people's hands stacked in a circle, symbolizing teamwork and unity. The hands are of various skin tones and are wearing blue wristbands. The background is a dark blue gradient.

Working together for

CORAL REEF MPAS

SUSTAINABLE

financing



Elements of effective MPA implementation





A partnership between



&



Contact



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