

Fonasba Annual Conference

Green Maritime Transportation Session

The Aqaba Marine Park (AMP)

Project Brief

October 18, 2023

Background\ Strategic Context

→ *We Are Answering*

Levels

Oceans' Key Stressors

1 Why?



Globally

*One Unified
Healthy Ocean*



Climate Change,

*Warming, Acidification,
Pollution, Overfishing, &
declining Living Conditions*

2 What?



Regionally

*Unique Red Sea
Environment*



Desalination,

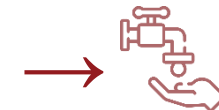
*Massive Rush into
Economic Projects
& no influential EIAs*

3 How?



Locally

*The Gulf of Aqaba is
a Spark of Hope &
Solution for Future*

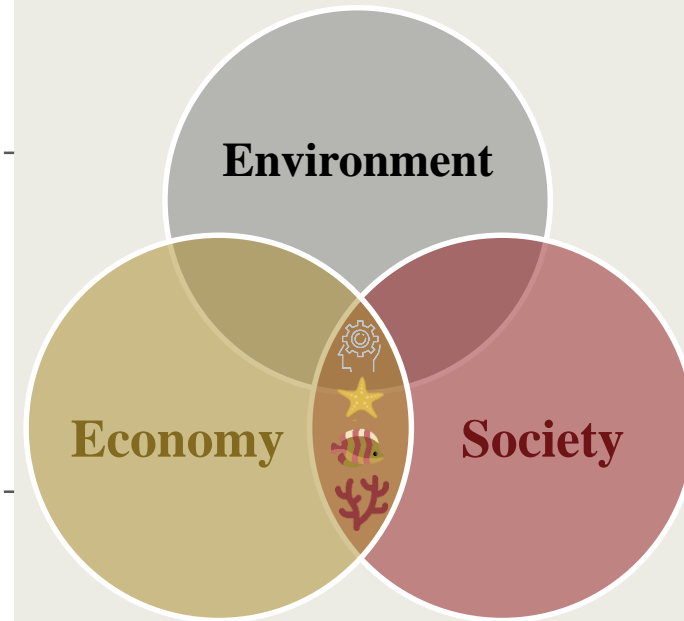


Water Scarcity,

*Coastal Development,
& potentials to promote
restorative Blue Economy*

Sustainable Development

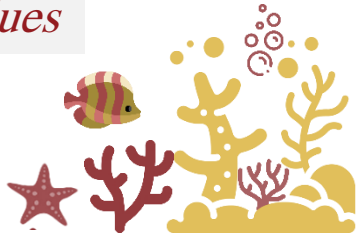
*& UN Decade of Ocean Science
(2021-2030)*



*Holistic, Integrated &
Sustainable Efforts Should be
Considered by All
for Thriving Future*

Coral Reef Significance ... The Most Precious Resource & Key Global Asset

Values



Rainforests

Lungs of the Sea

Support
At Least **30%**



Occur in more than
100 Countries &
Territories

Underpin the safety,
coastal protection,
food livelihoods,
& economic security

Status



Are at **RISK**

1.5°C ↑ lead to
a loss of

70% - 90%

2°C ↑ **99%**

Over
50% of the
world's
died in the 
last 3 decades.

Critical Risks

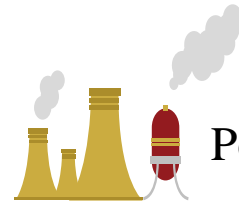
Corals threatened by **local**,
regional & **global** threats.



Acidification



Overfishing



Pollution



Global Warming

Global Way Forward

Vision: High coral cover
& diversity will confer a
natural resistance to
elevated sea temperature

**Restore Viable
Coral Reefs Population**

Improve Fisheries
Sustainability

Reduce Land-based
Sources of Pollution,
(*Integrated Coastal Zone
Management Plans*)

Increase Resilience
to Climate Change

Rich Marine Biodiversity in the Gulf of Aqaba

Despite the relatively small water body at the Gulf of Aqaba, it hosts an extraordinary **Marine Diversity**.


Birds 390 Species 

- Reside in Jordan
- Annual migratory stop

Plantea

3 Species of seagrass

Echinodermata

 **125 Species** (82 genera)

Sea stars, Sea Urchins, Sea Cucumbers

Protista

 **33 Species** - (3 Families)

Red Algae, Brown Algae & Green Algae

Porifera

72 Species of sponges

Corals

157 Species of hard coral

120 Species of soft coral

 **Jellyfish**

3 Species
3 genera

Fishes

 **> 510 Species**
109 families

4 **Sea Turtles** 

Globally Threatened
Green, Loggerhead, Leatherback, Hawksbill

Mammals

Dugongs

Dolphins

Pantropical spotted Indo-Pacific bottlenose

Sharks

Harmless Whale Shark

Zooplankton

73 Species

45 Genera
Within 10 Taxa
Represented mainly by holoplanktonic forms

Chordata

20 Species

3 classes

(Tunicates)
Ascidiacea (6)
Larvacea (8)
Thaliacea (6)

Chaetognatha

 Known as (Arrow Worms)

4 Species - 2 Genera

 **Mollusca**

645 Species
5 classes

Gastropoda (462)
Bivalvia (162)
Polyplachophora (17)
Cephalopoda (2)
Scaphopoda (2)

Most Pristine Climate Change- Resistant Corals at the Gulf of Aqaba



The Gulf of Aqaba

A Spark of Hope & Applied Solutions



Leadership Support

“ Another innovative project is taking place at **Aqaba's Marine Nature Reserve**, where we and international partners will be helping find solutions to ocean climate crises far beyond our shores.” ”

His Majesty King Abdullah II ibn Al Hussein
November 2022 - **COP-27**

HMK's Speech – November 2021- **COP-26**

“ We are taking steps to care for a unique marine resource, our resilient coral reefs in the Gulf of Aqaba. **We have designated a protected nature reserve**, and with your support, will be able to leverage learnings about effective climate change mitigation and adaptation, by **establishing a marine science and research park in Aqaba to help marine areas at risk across the globe**, and increase knowledge sharing on water, energy, and environmental research. ”



Vision

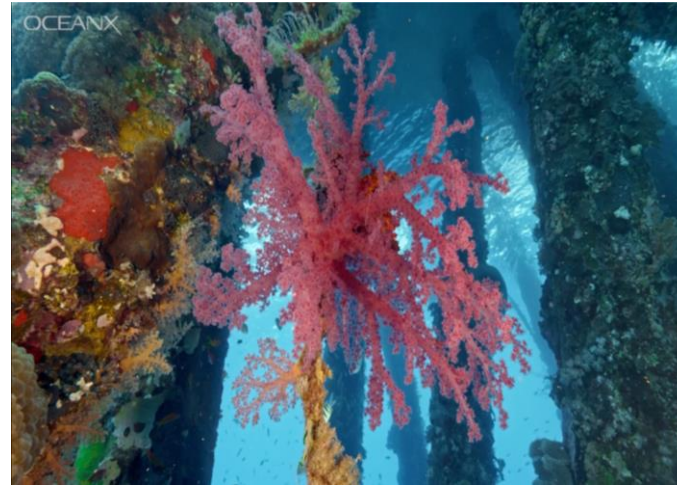


A world where humankind works in partnership with nature to celebrate and restore our blue planet and create a thriving future for us all.

Mission



To establish the Aqaba Marine Park as a unique destination, combining pioneering science with conservation, tourism and awareness in order to support the international fight against climate change and create a global model of marine stewardship and a restorative blue economy



Components

- 1 Marine Reserve
- 2 Science & Innovation
- 3 Public Aquarium



AMP Objectives



Promoting the conservation and sustainable use of the Aqaba Gulf's pristine coral reef ecosystems.



Supporting the coral reef restoration efforts world-wide.



Providing an international marine research hub to pioneer science-based applied solutions.



Facilitating the development of new & sustainable marine-based products & industries.



Providing visitors exciting & immersive touristic & educational experiences of the marine world.

The Aqaba Marine Reserve ... *An Outdoor Protected Laboratory for the Science & Innovation*

Length



Extends over **(7 Km)** out of **(26.5 Km)** total shorelines, which represents **(26.4%)** of the total coastline length\ the only sea window for Jordan.

Area



(2.8 Km²) out of **(96 Km²)**, which represents **(3%)** of the Jordanian Territorial seawater area.

Boundaries



Terrestrial boundary lies **(50 m)** east of the Mean High-Water Mark (MHW) and the marine boundary lying **(350 m)** west of the MHW.

Support

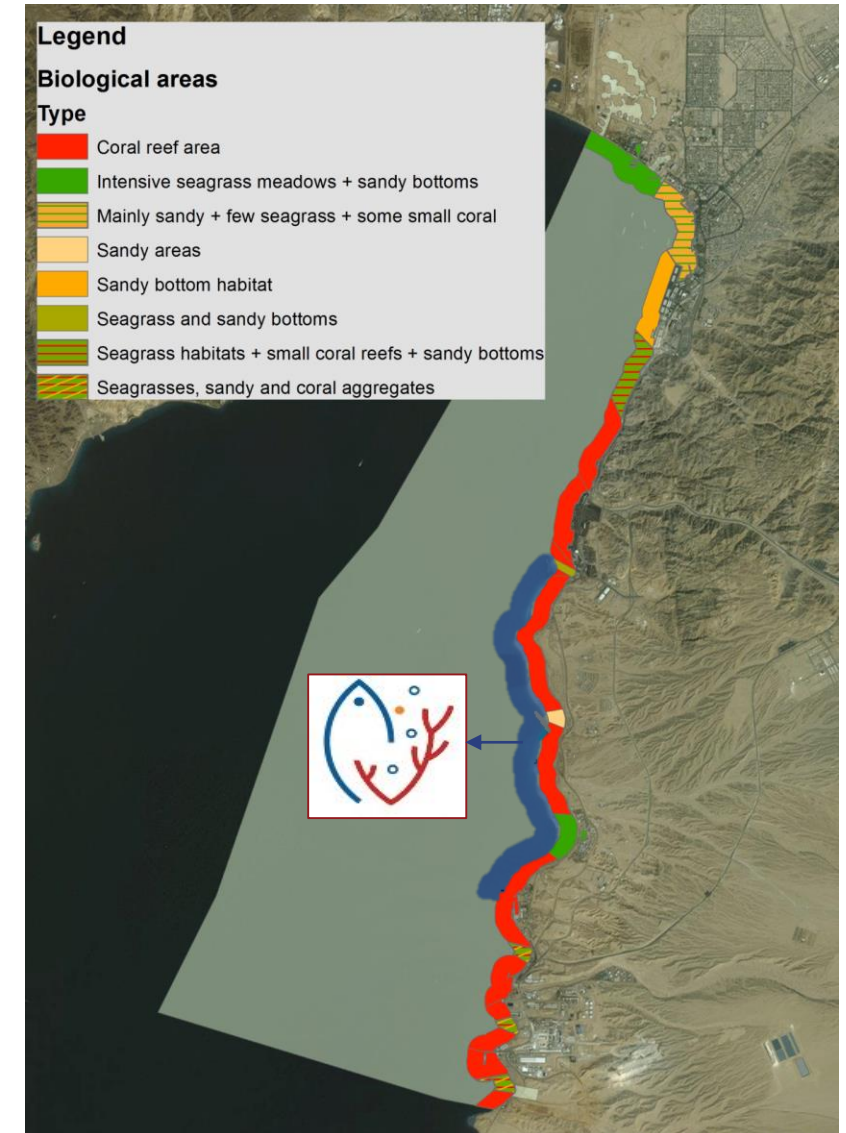


Management Plan being executed for (2022-2026), with seed support of (€ 3.5 M).

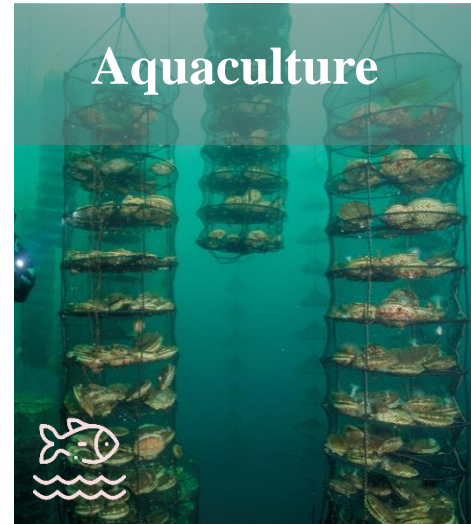
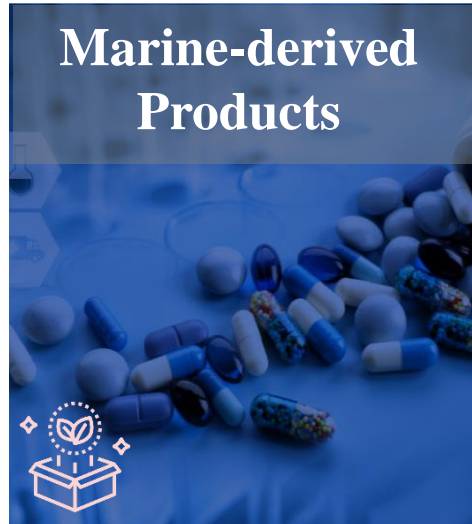
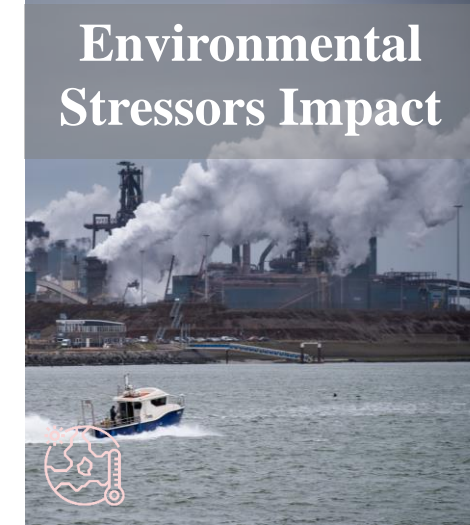
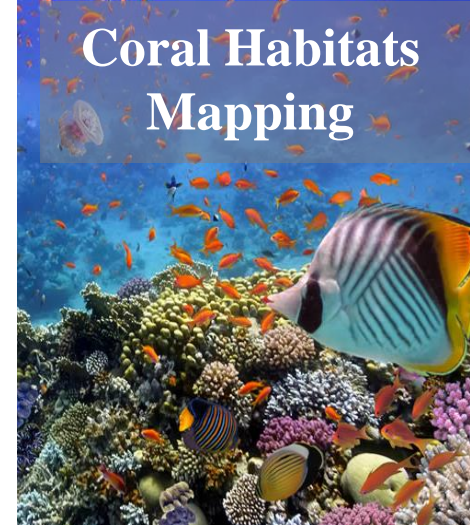
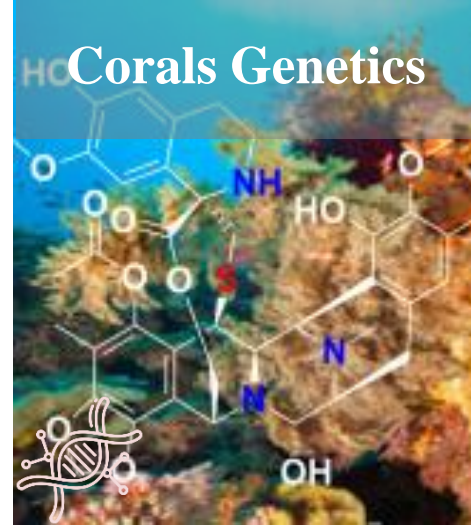
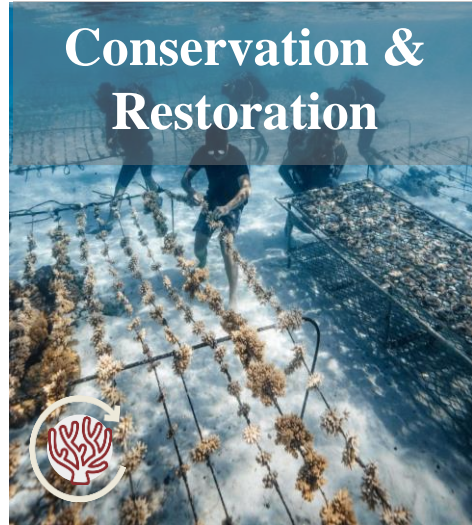
Global Recognition



✓ Tentative World Heritage List (Feb. 2023).



AMP's Science and Technology Functions



AMP's Aquarium ... *Promote the Value of the Aqaba Reef Ecosystems*



International Honorary Advisory Board for Aqaba Marine Park (AMP)



Mr. James Murren

Chairman of the COVID-19 Response, Relief & Recovery Task Force at State of Nevada- USA



Mr. James Cameron

Explorer; Environmentalist; Filmmaker



Admiral, Prof. William H. McRaven (Retd.)

Board member, Council of Foreign Relations. Professor of National Security, University of Texas at Austin



Mr. William "Bill" Doyle

Chairman of the Board of Directors of Georgetown University - USA



Dr. Robert D. Ballard

President of the Ocean Exploration Trust and an Explorer-at-Large for the National Geographic Society



Mr. Mark Ray Dalio

Founder, Creative Director of the OceanX Initiative- USA



Mr. Philippe Cousteau

Co-Founder of EarthEcho International, Azure Worldwide, and AdvisorShares Global Echo ETF Exchange - USA



Prof. Jean Jaubert

Marine Biologist\ Former Director of the Monaco's Oceanographic Museum, University of Nice- France.



Ms. Maria Wilhelm

Executive Director of the Avatar Alliance Foundation, and President & COO of CAMERON Companies- USA



Mr. Samuel Harp

Vice President for Advancement and Chief Marketing Officer, Woods Hole Oceanographic Institution - USA



Prof. Ove Hoegh-Guldberg

Director, Centre for Excellence in Coral Reef Studies, University of Queensland- Australia



Prof. Peter R. Girguis

Organismic & Evolutionary Biologist, Co-Director of Microbial Sciences Initiative, Harvard University- USA



Prof. Vincent Pieribone

Co-Chairman of OceanX; Professor at Yale University, Director and Fellow of The John D. Pierce Laboratory- USA



Prof. Claude Bouchon

Emeritus Professor, Eco Reef Environment, University of the French West Indies



Prof. Bernard Salvat

Emeritus Professor, Perpignan University - France



Dr. Jean-Pierre Gattuso

Bio-Geosciences Expert, Laboratory Oceanography, Sorbonne University- France



Dr. Nadia Ounais

Vice President, Oceanographic Institute, The Prince Albert I of Monaco Foundation - Monaco



Dr. Didier Zoccola

Molecular Biologist, Monaco Scientific Centre- Monaco



Prof. Anders Meibom

Director, Transitional Red Sea Center- EPFL, Institute of Earth Sciences, University of Lausanne-Switzerland



Dr. Dureid Mahasneh

Chairman of Edama, Water, Energy & Environmental Expert- Jordan



Mr. Ziad Abu-Jaber

Business Development Expert- Jordan