



The General Organization For Conservation  
of Coral Reefs and Turtles In The Red Sea



# THE RED SEA REGION – A CLIMATE REFUGE FOR CORAL REEFS

**9<sup>th</sup> September 2023 - 09:00 - 17:30**

*Crowne Plaza Jeddah al Salam, Jeddah, the Kingdom of Saudi Arabia*

Organised by the General Organization for Conservation of Coral Reefs and Turtles in the Red Sea (SHAMS) and the International Coral Reef Initiative (ICRI)

The predicted loss of the world's coral reefs threatens the health and socio-economic well-being of hundreds of millions of people and could substantially disrupt multiple marine ecosystems. Yet, biodiversity hotspots continue to be prevalent throughout the world's reef systems. A critical example of one of these hotspots is the Red Sea and Gulf of Aden. The Red Sea contains the most biologically diverse coral reef communities outside of Southeast Asia's coral triangle and is one of the longest continuous living reefs in the world. Approximately 6% of coral species within the Red Sea are endemic, with other coral reef species, such as fishes, being much higher, making this region one of the most valuable repositories for marine biodiversity.

Coral reefs within the Red Sea and Gulf of Aden region cover 13,605 km<sup>2</sup>, approximately 5.3% of the total global area of coral reefs. The coral reefs of the Red Sea provide food and a source of livelihood to a rapidly growing population of over 28 million people living along its coastline. Fisheries landed value is approximately US \$230 million per year for the region, while annual revenues from tourism are over US \$12 billion. The Red Sea extends to its most northern portion, into the Gulf of Aqaba, which has the potential to be one of the planet's largest marine refuges from climate change due to the unique high thermal resilience of coral species.

In response to the recognition of the value of the region for the world's coral reefs, there has been an increase in attention on the region, with multiple organizations, initiatives, and projects being established. These conservation actions seek to conserve, protect, and restore the region's coral reefs.

Shams is at the forefront of this vital mission. With a mandate encompassing regulation, protection, and restoration, Shams is dedicated to ensuring the sustainability of the Red Sea's coral reefs. By collaborating with local and international experts, Shams spearheads innovative initiatives to monitor, restore, and rehabilitate these essential marine habitats. These efforts not only safeguard biodiversity but also position Saudi Arabia as a global leader in coral reef and sea turtle conservation, setting a benchmark for marine conservation efforts worldwide.

The "Red Sea Region – A Climate Refuge for Coral Reefs" Day, preceding the 38th ICRI General Meeting, will highlight the importance of the Red Sea and Gulf of Aden's coral reefs for global coral reef conservation efforts, showcasing the efforts being undertaken to understand and build future coral reef resilience to a rapidly changing ocean. It will emphasize the unique biogeography of the Red Sea, which has resulted in high endemism and heat-tolerant coral species, positioning the region as a potential refugia

The day will present an open forum for the exchange of views and experiences to sustainably manage coral reefs with a central focus on the coral reefs of the Saudi Arabian Red Sea.

At the end of the Red Sea Day, the main conclusions will be presented to adopt an ICRI recommendation on the importance of coral reefs in the region during the 38th ICRI General Meeting. This recommendation will aim to highlight the unique nature of the Red Sea and Shams' suitability to contribute to the Global Coral Reef Monitoring Network (GCRMN), emphasize Shams' vision for its work, and stress the need for regional and international cooperation in coral reef conservation efforts.

**Draft Agenda**  
(21/08/24)

08:00 – 09:00 - Registration

*Morning Session (09:00): Opening and Welcoming Remarks*

**Moderators:**

1. *Dr Jennifer Koss, ICRI co-chair, and Director, NOAA Coral Reef Conservation Program, United States*
2. *SHAMS (TBC)*

**(09:00) Presentation of the day (5')**

*Dr Jennifer Koss, ICRI co-chair, and Director, NOAA Coral Reef Conservation Program, United States*

**(09:05) Welcoming remarks – Saudi Arabia's Commitment to Coral Reefs (5')**

*Dr Khaled Asfahani, CEO, SHAMS*

**(09:15) Keynote speech - SHAMS Strategy- Holistic Blueprint for Red Sea Conservation Through Collaborative Stewardship (15')**

*Dr Abdulaziz Alsuwailem, Chief Conservation & Strategy Officer, SHAMS*

**(09:35) The SHAMS Outlook Report: Coral Reefs in the Red Sea, Kingdom of Saudi Arabia (5')**

*TBC*

**(09:45) Keynote speech - Deep Blue and the Red Sea – the exciting new conservation frontier of NEOM's Nature Reserve (15')**

*Speaker: Dr Paul Marshall, Head of Nature Region, NEOM*

**(10:00) Coffee Break (30')**

**(10:30) SHAMS – A leading organisation to oversee the regulation, protection, development, and sustainability of coral reefs in the Red Sea.**

**(10:35) Reef Resilience Reimagined (10')**

*Dr David Feary, General Director, Coral Reef Conservation, SHAMS*

**(10:50) Monitoring and Assessment in the Modern World: Aligning SHAMS' Red Sea Coral Reef Vision with the Global Coral Reef Monitoring Network (10')**

*Dr. Mohammed Elsayed, General Director of Coral Reef Monitoring and Assessment, SHAMS*

**(11:05) SHAMS' Vision to Transform the Red Sea into a National Icon Through Eco-Tourism and Citizen Science (10')**

*Vincent Kneefel, Program Director, Citizen Science, Communication & Outreach, SHAMS*

**(11:20) Meeting 30% of degraded ecosystems under effective restoration by 2030 challenge: Shams Road map using best-practice, innovative technologies, and stakeholder engagement (10')**

*Dr Dominic Bryant, Senior Coral Reef Conservation Specialist, SHAMS*

**(11:30) Moderated Questions & Answers (30')**

**(12:00) Lunch**

***Panel Sessions***

*Each speaker will be provided 10 minutes to present their given topic. Following the final speaker, speakers will be welcomed to the stage for a quick-fire Question & Answer session with the audience to elaborate further or delve into their topics in more detail. Speakers are requested to keep to their allotted time to ensure plentiful time for discussion.*

**13:30 - Panel Session 1: The Red Sea's Biogeographic Evolution: From Ancient Isolation to Modern Endemism and Reef Refugia (60')**

Moderator: TBC

Panellist Speakers:

**(13:30) The Biogeographic History and Current State of the Marine Environment of the Red Sea and Gulf of Aden (10')**

*Professor Francesca Benzoni, Associate Professor, Marine Science, Biological and Environmental Science and Engineering Division, KAUST*

**(13:40) Bringing the Gulf of Aqaba to the World's Attention: The Ocean X expedition (10')**

*Dr Paul Marshall, Head of Nature Region, NEOM*

**(13:50) Northern Red Sea - a Refuge for Thermally Tolerant Coral Reefs (10')**

*Dr. Eslam Osman, Red Sea Research Center, KAUST*

**(14:00) The Red Sea: Environmental Gradients Shape a Natural Laboratory in a Nascent Ocean (10')**

*Professor Michael Berumen, Professor, Marine Science, Biological and Environmental Science and Engineering Division, KAUST*

**(14:10) Moderated Questions & Answers (20')**

**14:30 - Panel Session 2 - Safeguarding Red Sea Corals: Conservation Strategies and the Importance for Regional Collaboration (60')**

Moderator: TBC

Panellist Speakers:

**(14:30) Conserving the Gulf of Aqaba: an Area of Outstanding Universal Value of Coral Reefs in the Red Sea (10')**

*TBC*

**(14:40) Understanding Red Sea Reef Connectivity: A cornerstone for Conservation Planning (10')**

*Professor Ibrahim Hoteit, Professor of Earth Sciences and Engineering, King Abdulla University of Science and Technology (KAUST)*

**(14:50) Red Sea Conservation: Local Actions and Regional Collaboration (10')**

*Dr Mahmoud Hanafy, Professor of Marine Science at Suez Canal University and Scientific Advisor to HEPCA (Hurgada Environmental Protection and Conservation Association)*

**(15:00) Moderated Questions & Answers (20')**

**(15:30) Coffee Break including Group Photo**

**(15:50) Panel session 3 – Citizen Science, Sustainable Tourism, and Blue Natural Capital: Elevating, and Investing in, the Red Sea as a Coral Refugia and National Treasure (50')**

Moderator: TBC

Panellist Speakers:

**(15:50) Bringing the tourism in the conservation journey through Green fins (10')**

*Chloe Harvey, Executive Director, The Reef World Foundation*

**(16:00) The Evolution of Saudi Arabia's Red Sea Tourism and Its Role in Red Sea sustainability (10')**

*Mohammed Al Nasser, CEO, Saudi Red Sea Authority*

**(16:10) The Red Sea: Investing in Blue Natural Capital to Secure a Future for the Red Sea Ecosystems (10')**

*TBC*

**(16:20) Questions & Answers (20')**

**(16:40) Key messages from each session by the 3 moderators (30')**

**(17:10) Closing remarks**

- Christine Dawson, Director, ICRI co-chair & Office of Conservation and Water (OES/ECW), U.S Department of State, United States of America (5')
- Dr Abdulaziz Alsuwailem, Chief Conservation & Strategy Officer, SHAMS (5')

**(17:20) End of the day**