The work of the partnership focuses on enabling coral reefs to cope with inevitable climate change and ocean acidification impacts, promoting survival and adaptation of species, recovery and protection of ecosystem functions, and improving prospects for continued ecosystem service provisions.

The partnership is developing guidance documents, data and knowledge products to support coral reef management that builds reef resilience. Identification of science-policy linkages and strategic targeting of activities and outputs was supported through two workshops held in 2014 with a common theme of coral reef resilience. An international resilience workshop will be held in 2017 to share experiences, review progress, and provide further direction.
Tools and Products

Downscaled Climate Model Projections of Coral Bleaching Conditions - Coral reefs are highly vulnerable to temperature stress, which is predicted to increase with climate change, but the spatial scale of climate model outputs is too coarse for application in coral reef management planning. Through collaboration with NOAA and other partners, the partnership has downscaled climate model projections for coral bleaching conditions for the world’s coral reefs, at a resolution of 4km for every year up until 2100. This identifies reef areas that are relative climate refugia. As such it provides a key dataset in prioritizing reef management.

Knowledge products on emerging issues produced include:

- **A technical report on Mesophotic Coral Reef Ecosystems**, prepared in partnership with GRID Arendal. This constitutes the most comprehensive compilation on mesophotic reefs to date, covering distribution, threats, role in climate change resilience of shallower reefs, and critical knowledge gaps. The report provides appropriate policy, management and research responses based on concrete science-based recommendations.

- **A Science to Policy Brief on Wastewater Pollution on Coral Reefs**, developed jointly with the GPA Global Waste Water Initiative for publication in 2016. Targeted at local and national government policy makers and the private sector, this provides management and policy recommendations on addressing wastewater in coral reef areas to protect their resilience.

A Coral Reef Theme on UNEP-Live provides universal access to these datasets, tools and resources.

The partnership has also supported development and implementation of the ICRI Regional Strategy for Control of Invasive Lionfish in the Wider Caribbean.

Application and Upscaling

Broad use of of these tools and data products is being pursued. This will include:

- Demonstration projects for MPA network planning, MPA establishment or zonation.
- Consideration of coral reef climate change exposure and resilience in MSP processes.
- Strengthening sustainability of cross-sectoral management initiatives, including e.g. prioritization of Green Fins implementation to reduce the direct pressure from reef tourism based on downscaled climate model projections.
- Promoting use of tools and data products in the implementation of relevant GEF Projects under Biodiversity or International Waters focal areas.
- Technical support to counties on development of relevant measures and action plans, and collaboration on implementation.

Main Partners

- NOAA
- TNC
- GBRMPA
- GRID Arendal
- GPA Global Waste Water Initiative

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