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Notes & News: Small island developing states - Deep sea mining - Large-scale conservation - Climate change and fisheries - Financing fishery transition projects

Priority environmental threats identified for Small Island Developing States

The UN Environment Programme has released a report identifying priority emerging environmental issues of concern to Small Island Developing States (SIDS). The report covers a wide array of threats — invasive species, overfishing, reaching the limit of land capacity, and more — but the greatest issue of concern is climate change. Global warming is causing trillions of dollars of damage to coral reefs, which are critical to protecting island coasts from storms, promoting fisheries by serving as nursery habitats, and attracting tourism revenue.

"These 52 [SIDS] nations, home to over 62 million people, emit less than 1 percent of global greenhouse gasses, yet they suffer disproportionately from the climate change that global emissions cause," said Achim Steiner, head of UNEP. From climate change, some islands are expected to become uninhabitable while others are faced with the potential loss of their entire territories. The report *Emerging Issues for Small Island Developing States* is at www.unep.org/pdf/Emerging issues for small island developing states.pdf

UNEP releases overview of deep sea mining and policy implications

UNEP has released a brief overview of deep sea mining, including its prospects, ecological and socioeconomic considerations, and policy implications. Global prices are rising for valuable metals, including the kinds predicted to be found in deep sea areas (in sea-floor massive sulphides, cobalt-rich ferromanganese crusts, and polymetallic nodules). Advancements in technology are making deep sea mining increasingly possible. Although no commercial deep sea mining operation has occurred yet, plans to open deep sea mines have been announced and mining companies have leases to explore margin sediments for minerals off the coasts of several countries.

The paper calls for strengthening governance mechanisms for international waters and the seabed, adaptive management of deep sea mineral extraction, and use of a precautionary approach to avoid potentially destructive mining practices. The briefing paper "Wealth in the Oceans: Deep sea mining on the horizon?" is at www.unep.org/pdf/GEAS_May2014_DeepSeaMining.pdf

Study examines challenges and success factors for large-scale conservation partnerships

Large-scale conservation initiatives are collaborative projects that span broad geographic areas and various biological and administrative boundaries. Like the problems they are designed to address (such as achieving conservation and sustainable development across an entire marine ecoregion), these initiatives can be quite complex. A new study published in *Conservation Biology* gathers and examines the challenges of large-scale conservation, and reports on traits critical to successful partnerships.

Among the successful traits:

- Adopting an adaptive management approach that uses research to revise conservation objectives and select suitable management actions; and
- Linking economic and ecological benefits to ensure continued funding.

The study team, led by Erik Beever of the US Geological Survey, polled conservation practitioners from 11 different initiatives spread across 29 countries. Individual programs ranged in area from 10000 km² to an entire continent. The full article is available for a charge athttp://onlinelibrary.wiley.com/doi/10.1111/cobi.12233/abstract. A research brief is available for free from the European Commission at http://ec.europa.eu/environment/integration/research/newsalert/pdf/373na5.pdf

Summary of IPCC report released for seafood industry

The seafood industry faces severe disruption from climate change and ocean acidification. That is the conclusion of a new publication that distills the Intergovernmental Panel on Climate Change Fifth Assessment Report (www.ipcc.ch/report/ar5) relative to the threat of climate change and acidification to marine resources.

The briefing was produced by the Sustainable Fisheries Partnership and the University of Cambridge Institute for Sustainability Leadership. Among its forecasts:

- A loss of US \$17-41 billion in global fisheries landings by 2050 with global warming of 2°C;
- An increase in fishery yields of 30-70% in high latitudes and a decrease in fishery yields of 40-60% in the tropics and Antarctica with global warming of 2°C; and
- Reduced access to marine protein for 400 million people.

The briefing encourages the seafood industry to undertake vulnerability assessments of fisheries and aquaculture operations; support the strengthening of coastal zone management to reduce land-sourced pollution, over-harvesting and physical damage to resources; and create new habitats such as artificial reefs to act as fish nurseries in

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Report provides framework for fishery transition projects

A new report offers a framework for transitioning fisheries to management systems based on secure tenure. Towards Investment in Sustainable Fisheries: A Framework for Financing the Transition outlines how fishing communities and project developers can design and promote fishery transition projects to attract investors who seek financial returns as well as social and environmental benefits. Produced by EDF and The Prince of Wales's International Sustainability Unit, the report is available at www.edf.org/towards-investment-sustainable-fisheries

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