

## A Call To Action Protecting Mangroves for Climate Change Mitigation and Adaption

We, the undersigned, coming from governments, academia, businesses, local communities and conservation organizations express the urgent need for action to protect the world's mangroves, uniquely found in coastal areas within tropical and subtropical regions.

Mangrove forests are extremely valuable, but fragile, ecosystems that provide many critical ecosystem services, such as carbon sequestration, food and energy, coastal disaster protection, shoreline stabilization, waste processing, recreation, and hosts to important biodiversity. Being at the interface of land and sea, they also play key roles in linking terrestrial, freshwater, and marine systems, thus keeping all three productive and healthy.

As various natural disasters have demonstrated, mangroves can protect coastal communities and reduce death tolls in the event of major storms or tsunamis. Mangroves serve as key fish nursery habitats for important commercial and subsistence fisheries, such as groupers, snappers, mullets, and blue and mud crabs. They are a main barrier to nutrient runoff that causes harmful algal blooms. When found adjacent to coral reefs and sea grass beds, mangroves are critical to maintaining the high biodiversity of tropical systems, and thus underpin valuable recreational industries vital to coastal economies. Recent findings also estimate that mangrove forest soils can sequester as much as six times the carbon of undisturbed Amazonian rainforest per year on a hectare by hectare comparison.

Despite their high value and importance to human wellbeing, over 25% of global mangrove areas have already been lost, with no consensus yet for the rate of loss. Continued degradation and deforestation combined with rising sea levels due to climate change will likely accelerate losses. Human settlement along coastal areas will prevent the natural ability of mangroves to adapt to rising sea levels. Continued unsustainable human use, especially clear cutting, overfishing, overdevelopment, diversion of rivers and water flows, pollution, and coral reef destruction will affect the resilience of mangroves to adapt to changing conditions.

In order to reduce threats to mangrove forests and to safeguard their important ecosystem services to strengthen the ecological and socioeconomic securities of coastal communities and nations, we:

**CALL ON** Parties to accelerate actions to protect this important ecosystem,

## **RECOMMEND** that Parties:

- <u>Develop and implement national mangrove protection policies and legislation</u> to halt further deforestation and degradation, particularly due to land use changes and water diversion, and to promote mangrove restoration activities
- <u>Call for an IPCC expert meeting on protection and restoration of mangroves</u> and other coastal ecosystems as strategies for climate change mitigation and adaptation
- Include mangroves in national REDD+ accounting strategies
- <u>Develop methodologies for monitoring, reporting, and verification</u> of mangrove carbon for REDD+ and other strategies

- Ensure that <u>conservation of mangrove ecosystems is included within National Adaptation</u>
   <u>Programmes of Action (NAPAs)</u> and other coastal disaster risk reduction and recovery strategies
- <u>Create enabling environments for innovative conservation financing</u> mechanisms, such as
  payment for ecosystem services, including carbon offset credits, as well as international funds
  dedicated to mitigation and adaptation strategies
- Develop ecosystem-based management for and including mangrove systems to support the continued delivery of the full suite of ecosystem goods and services mangroves provide and within the framework of integrated coastal development plans

and lastly,

**HIGHLIGHT** that the <u>"return on investment" from mangrove protection in both livelihood and economic benefits</u> to the communities and nations that make the investment will far eclipse the short-term profits from destructive and extractive uses.

## SIGNED BY:

Michael Jenkins, President, Forest Trends, USA

Dr. Tundi Agardy, Director, Marine Ecosystem Services Program, Forest Trends, USA

Dr. Winnie Lau, Program Manager, Marine Ecosystem Services Program, Forest Trends, USA

Gael Almeida, Director of Development, Fondo Mexicano para la Conservación de la Naturaleza, MEXICO

Lorenzo Rosenzweig, Executive Director, Fondo Mexicano para la Conservación de la Naturaleza, MEXICO

Paul Sánchez-Navarro Russell, Director, Centro Ecológico Akumal, MEXICO

José Eduardo Rolón Sánchez, Public Policy Director, Comunidad y Biodiversidad A.C., MEXICO Eveline Trines, Silvestrum, Jisp, THE NETHERLANDS

Dr. Gustavo D. Danemann, Director Ejecutivo, Pronatura Noroeste AC, MEXICO

Dr. J. G. Kairo, Kenya Marine and Fisheries Research Institute, KENYA

Manuel Vazquez Phillips, Director of Operations, Lindblad Expeditions, MEXICO

Bettina von Hagen, President, Ecotrust Forest Management, USA

Richard Cudney, Program Officer, The David and Lucile Packard Foundation, USA

Martín Gutiérrez Lacavo, Director, Pronatura México, MEXICO

Timothy o'Shea, Founder and Executive Chairman, CleanFish, USA

María José González, Executive Director, Mesoamerican Reef Fund, GUATEMALA

Michael J. Van Patten, CEO/Founder, Mission Markets Inc., USA

Dr. Anuwat Nateewathana, Marine Biodiversity Specialist, Department of Marine and Coastal Resources, Ministry of Natural Resources and Environment, THAILAND

Dr. Indumathie Hewawasam, Marine and Coastal Consultant to the World Bank, USA

Abdoulaye DIAME, Executive Secretary, Africa Mangrove Network, Dakar, SENEGAL

Dr. Gordon Ajonina, National Coordinator, Cameroon Mangrove Network, CAMEROON

Dr. Peter J Mumby, Professor, University of Queensland, AUSTRALIA

Dr. Bonnie J. McCay, Board of Governors Distinguished Service Professor, Rutgers the State University of New Jersey, USA

Steven J. Lutz, Executive Director, Blue Climate Solutions, USA

César García, Master in Science, Costa Salvaje, A. C., MEXICO

Choong-Ki Kim, Stanford University, USA

Ariana Sutton-Grier, AAAS Science and Technology Policy Fellow hosted by NOAA, USA Juliana Castaño Isaza, Master's Student, Brandeis University, USA

Theda Braddock, Director of Ecosystem Markets, Mission Markets, Inc. & Mission Markets Earth LLC, USA

Daniel Suman, Professor, Rosenstiel School of Marine and Atmospheric Science, University of Miami, USA

Dr. Jan Cassin, Pilot Project and Policy Coordinator, Business and Biodiversity Offsets Program, Forest Trends, USA

Jason Scorse, Associate Professor & Chair, International Environmental Policy Program, Monterey Institute of International Studies, USA

Cynthia Brown Mayoral, Director Fisheries Fellows Program, Rare, MEXICO

Victoria Stein, Director, Community Investments, Mission Markets, Inc., USA

Chris Pesenti, Director, RED Sustainable Tourism, MEXICO

Alexander Markham, Lorry Lokey Fellow, Environmental Defense Fund, USA

Ernesto Bolado Martinez, Director and legal representative, SuMar, Voces por la Naturaleza, A.C., MEXICO

Alasdair Harris, Blue Ventures Conservation, Antananarivo, MADAGASCAR