Too many fisheries are in danger of collapse.

According to a Pew Oceans Commission Report, our oceans are “in crisis.” The U.S. Commission on Ocean Policy asserts that our failure to properly manage our oceans is “putting our future at risk.”

To address and reverse this alarming situation, policy makers and fishery managers need consistent and reliable data on an ongoing basis. They need to be able to track changes in fish populations and ecosystems over time, as well as the effects of conservation measures, including marine protected area (MPA) designations. This, in turn, requires the ability to see and work in underwater environments—which, beyond diver depths, means enlisting technology and engineering support.

Marine Applied Research and Exploration (MARE) provides needed deepwater engineering, offshore operations, and data processing expertise. Founded as a nonprofit, 501c3 organization in 2003, our mission is to help protect and restore the ocean’s invaluable, yet threatened resources by enabling science-based marine conservation efforts.

Statement of Activities, FY 2011-2012

EXPENSES

- Programs: 5%
- General & Administrative: 18%
- Fundraising & Development: 77%
Total: $1,057,005

INCOME

- Government Grants: 27%
- Foundations & Community Support: 38%
- Fee for Service Contracts: 24%
- Equipment & In-Kind Contributions: 11%
Total: $1,291,327

Thank you supporters!
2012 Funders, Donors & Partners

- Bureau of Ocean Energy Management
- California Academy of Sciences
- California Department of Fish & Wildlife
- California Ocean Protection Council
- California Sea Grant
- California State University Monterey Bay
- Institute for Applied Marine Ecology
- The Campbell Foundation
- City of Los Angeles
- Deep Ocean Engineering
- Electronic Sales of New England
- F/V Donna Kathleen & the Maricich Family
- J.W. & H.M. Goodman Family Foundation
- Gulf of Farallones National Marine Sanctuary
- Hawk Ridge Systems
- Larry L. Hillbom Foundation
- The Hobson Family Foundation
- The Dirk and Charlene Kabcenell Foundation
- MECCO, Inc.
- Monterey Bay National Marine Sanctuary
- Monterey Fish Market
- Moss Landing Marine Labs
- The Nature Conservancy
- National Oceanographic & Atmospheric Administration
- Oregon State University
- Pacific Gas and Electric Company
- Pacific Life Foundation
- Resource Renewal Institute
- Resources Legacy Fund Foundation
- Martin Lawrence Rosen Fund
- U.C. Santa Cruz
- U.S. Army Corps of Engineers
- U.S. Geological Survey
- The Dean Witter Foundation
- Gregg & Lisa Bemis
- Ronald K. Clausen
- Alexandra Connell
- Rick & Trish Davenport
- Stephen L. Davenport
- Kerry Davidson
- Peter J. Davis
- Tom Davis
- Don Disraeli
- Barbara Duncan
- Claudia Duncan
- Doug & Jane Ferguson
- Sarah Givens & Fred Brechtel
- David Helvarg
- John Hubenthal
- David Jeffrey & Rose Levinson, PhD
- Donna Kline
- Jeff & Mia Ludlow
- Lisa & Bob Margolis
- Laura Martin
- Jack Opel
- Eric & Susan Poncelet
- Dirk Rosen & Pam Rich
- Dick & Shirley Rosseau
- Roger & Loreen Ruegg
- Randi Ryan
- Russ & Beth Silvestri
- Phil Stevens & Kate Farnady
- Kathy Teplitz
- Jeanette & Ed Ueber
- Karen & Pete Weber

Photos courtesy of MARE, CSUMB and NOAA
Our oceans are too important to squander.

They provide food and jobs for billions, and they absorb carbon from our atmosphere. In recent years, they have become an important source of new medical research — so much so that they are often referred to as the medicine cabinets of the 21st century.
MARE partnered with the National Oceanic and Atmospheric Administration (NOAA), the California Academy of Sciences and the U.S. Geological Survey to explore deepwater corals — some of which may hold clues to causes and cures for cancer and climate change.

Peter Etnoyer, NOAA Marine Biologist and expedition leader, gives a thumbs up as Gary Williams of the California Academy of Sciences retrieves a coral sample from the ROV Beagle. “We know corals are incredibly important, yet we still know relatively little about them — particularly those that live in the deep, beyond the reach of the sun,” said Etnoyer. “We were thrilled to be able to capture both up-close images and samples of these deepwater species.”
MARE in the Field

Bearing Witness: PG&E Offshore Seismic Testing

In November, MARE performed environmental surveys near PG&E’s Diablo Canyon nuclear power plant in order to document the state of deepwater species and ecosystems prior to the company’s proposed underwater, high-intensity (250 dB) acoustic testing. The tests, ultimately scuttled by the California Coastal Commission, were intended to map fault lines near the plant. Had the Commission allowed the tests, MARE’s survey would have provided a critical reference point for determining environmental impacts.

ROV Beagle Goes Deeper

In October, MARE’s remotely-operated vehicle, the Beagle, dove to 500 meters—that’s more than five football fields deep! This smashed its previous record, going 125 meters deeper than ever before.

Monitoring California’s New MPAs

MARE continued its marine protected area (MPA) assessment work. Partnering with Cal State University Monterey Bay and the Fishing Vessel Donna Kathleen, we completed our second consecutive year of baseline surveys in the South Coast MPAs. These surveys provide a snapshot of the protected areas as they are established and will be crucial to successful management of this statewide marine conservation network.

Message from the Executive Director

2012 was a landmark year for our oceans! President Obama released the National Ocean Policy implementation plan. The World Bank announced a global alliance to better manage and protect the world’s oceans. And the European Parliament’s Fisheries Committee put forward new rules aimed at ensuring fishery sustainability.

Our ailing oceans, it seems, are finally getting some of the attention they deserve considering their critical role in supporting human health and prosperity.

We were particularly pleased to see the National Ocean Policy’s emphasis on the need to “improve greatly” our understanding of ocean life in order to do a good job of managing it.

This is precisely why MARE’s work matters. By enabling scientist and marine managers to see life in the deep, we open the possibility of understanding complex deepwater marine communities—a necessary step toward establishing conservation measures that are both successful AND avoid needless harm to fishermen and coastal communities.

Become an ocean hero! Join us and our generous supporters in ensuring that we can see and properly steward our oceans—they are vital and irreplaceable.

Sincerely,

Dirk Rosen
MARE Executive Director and Founder

MARE Develops New, More Cost-Effective Observation Vehicles

Seeing in the deep is technologically challenging—and expensive. These new vehicles will collect far more data per dollar, which will improve our ability to understand and properly steward important marine resources.

The Video Lander

“The Lander” provides a low-cost solution for rapid surveys of unknown, unmapped habitats in the 10 to 300 meter depth range. It simply drops to the sea floor (or specified mid-water depth), where its stereo video cameras provide both 360° viewing and fish-sizing capability. The Lander is lowered from small, local fishing boats with minimal crew.

The BATFish

The Benthic Assessment TowFish is equipped with the same state-of-the-art cameras and sensors we use on our remotely operated vehicles (ROVs). But because it is towed, it is much smaller and lighter, as well as much less expensive to operate. Fitted with articulating wings and “smart” technologies, it flies through the water, hugging the seafloor even in rugged terrain.