



# Biosphere Foundation Overview

## Mission Statement

BF's primary goal is to inspire intelligent stewardship of our earth's biosphere. Biosphere Foundation (BF) achieves this objective by (1) implementing conservation programs which are community-based and sustainable; (2) creating educational programs that inspire people to care for the biosphere and get involved to make a difference; and (3) providing an unbiased, "trusted source" of data about the biosphere to users around the world.



*Mark Van Thillo, Abigail Alling, James Cameron, & Orla Doherty*

***"These are the people who are the next Cousteau.  
It may seem that their work is insignificant  
– one small boat, one small team in the middle of the ocean – but it is not.  
It is the most important thing anyone can do to make a difference."  
- James Cameron, November 7, 2010***

## What Makes Biosphere Foundation's Vision Unique?

### **Our Health is Synonymous With the Health of the Biosphere**

Sept 26, 2011, will mark 20 years since the Founders and Directors of BF (Abigail, Mark and Sally) entered the airlock door of the Biosphere 2 project and remained inside the dome structure for two years. Biosphere 2 profoundly changed our lives because we experienced daily that our actions were interconnected with the health of the biosphere.

Because we lived within the confines of a world sealed from earth's biosphere, we called ourselves "biospherians." It was a word that referred to all eight of us living inside this 3.15-acre world and became synonymous with the idea that humans are an expression of the biosphere: if our biosphere is healthy then we are healthy. This

fundamental idea is true of all people on *earth* ("Biosphere 1") – we are all biospherians and interacting with the biosphere with each passing moment.

### **Everyone Can Make a Difference**

BF believes that hands-on involvement is key to stewarding the biosphere. It is wondrous to realize that no action is "insignificant." Everyone can make a difference and be part of the solution.

### **Ocean-Going Sailing Ship "Mir"**

BF is unique in having a sailing ship to voyage the seas and work off remote Islands in Asia. *Mir's* homeport is located at Raffles Marina, Singapore.



*Mir a classic 1910 yacht moored off Menjangan Island, Bali*

### **Community-Based Conservation**

BF works hand-in-hand with indigenous peoples to help solve environmental challenges. We are "called to action" by the families living on shore who have no more fish and not enough means to live in the modern world. We provide our expertise to empower them to learn how to more effectively steward their land and sea.

### **Climate Change**

Our purpose directly relates to climate change because it is the most significant threat impacting the health of our biosphere today. We focus on "crisis points:" areas where indigenous people experience the day-to-day impact of environmental devastation caused by excessive energy and resource exploitation. Our aim is to provide information, know-how and education to make a difference to these communities while initiating programs to restore the health of the environment. Healthy ecosystems can withstand change and adapt while those that are dead and dying will only accelerate harmful trends. It is through such community-based conservation programs that we have joined a growing planetary network to steward a healthy biosphere and

ultimately stop the warming of our planet and other wasteful uses of resources before it is too late.

## **Biosphere Foundation's Organizational Values**

BF's prime organizational value is sharing information. BF embodies the idea that **information** about our biosphere belongs to everyone on the planet. Providing a trusted source of free data online is central to promoting information sharing amongst governments, scientific institutions, organizations, communities and individuals.

*As an example, please see our online data and reports for 49 coral reefs studied around the world at [www.pcrf.org/science](http://www.pcrf.org/science) and our extreme finding of remote reefs in the Phoenix Islands that died due to global warming at [www.pcrf.org/phoenix.html](http://www.pcrf.org/phoenix.html).*

BF's collaborative approach provides new **inspiration** for the conservation movement: volunteers and stakeholders understand that they can make a difference and identify the contribution they make in stewarding the biosphere. Naturally, professionals find and use BF's data and information, but our scope reaches beyond academia and into remote areas where local people are so moved by our work that they join us in the field.

*As an example, please view the "Canary is Dead" at [www.studioofthesa.org](http://www.studioofthesa.org), which inspired former Vice President Al Gore use the information in An Inconvenient Truth to highlight that coral reefs are an early warning sign of change.*

BF turns inspiration into **action** by demonstrating hands-on ways to protect resources and restore ecosystems. The organization reflects its values by providing online ways to make a difference; ensuring its place as a trusted source of data for scientists and conservationists; creating educational programs that are accessible to the students who will become tomorrow's activists; and through a culturally rich, hands-on collaboration with island peoples.

*Please view a slideshow depicting our community-based conservation program in Bali called "Friends of Menjangan" at [www.biosfirindonesia.org/menjangan.html](http://www.biosfirindonesia.org/menjangan.html).*

At the heart of Biosphere Foundation is the value that everyone can play a part in the solution. Hence our motto: "Care for the biosphere it's ours to love."

## **Biosphere Foundation Projects**

### **Coral Reef Conservation – Bali, Indonesia**

Menjangan Island is an uninhabited sacred island lying just off Bali's northwest coast within Bali Barat National Park (BBNP). The coral reefs fringing the island are suffering increasingly from dynamite fishing, poorly managed tourism, trash and climate change. To prevent the collapse of this spectacular reef, BF has conducted a scientific base-line study of the reef and implemented *Friends of Menjangan*, a community-based conservation program to engage all stakeholders in its stewardship including BBNP, local NGO's, fishermen, tourists, and students.

### **Rainforest Conservation & Sustainable Agriculture – Bali**

BF is working with *Friends of Menjangan* to develop land-based programs to encourage a reduction in fishing through an increase in agricultural diversity and sustainable use of the monsoonal forest.

### **Sea Turtle Protection – Anambas Islands, Indonesia**

Durai Island has the greatest concentration of nesting endangered green & hawksbill sea turtles in the Anambas Islands. Despite the fact that it is illegal to eat sea turtle eggs, nearly 100% of the eggs were gathered for human consumption until 2009 when BF initiated a program to make Durai beach a sea turtle protected area. BF will continue to provide guidance to support the long-term sustainability of this project.

### **Coral Reef Conservation – Anambas Islands**

BF initiated a coral reef conservation program to protect Durai Island's fringing coral reef and restore depleted fish stocks. In support of this objective, BF conducted a baseline study of Durai's coral reef in 2011 and helped secure the area as a Marine Protected Area in July of 2011. In the future, BF will return to the Anambas Islands to support community-based conservation programs to ensure the area remains protected as a "No-Take" zone.

### **GIS Marine Conservation Programs**

UC Santa Barbara Doctoral Student, Kitty Currier, is developing a geographic information system (GIS) framework for studying human-environment dynamics surrounding coastal marine ecosystems. For local and global impacts such as climate change, this program will provide valuable information to handle environmental crises with intelligent management.

### ***Studio of the Sea & Xinya Television***

Xinya Television is broadcasting *Studio of the Sea* mini-films in Hong-Kong, Singapore and China, and is utilizing its archive to produce documentaries. Included is "Canary is Dead," a film about global warming and the fact that reefs are an indicator for the health of our oceans.

### ***Coral Reefs: A Handbook for their Future* by Orla Doherty**

BF is publishing a coral reef textbook in English and Bahasa, Indonesia to help communities in the Southeast Asia learn how to care for their coral reefs in the face of pollution, destructive fishing and global warming.

### **Indian Ocean Marine Mammal Sanctuary, Sri Lanka**

At the invitation the Sri Lanka Indian Ocean Marine Affairs Co-Operation, BF will return to Sri Lanka in 2013 to work with of the Centre for Research on the Indian Ocean Marine Mammals and advise on the protection of blue, sperm and humpback whales.

### **Sailing Yacht *Mir***

The support ship for all of the above projects and headquarters for BF in Asia.

# Accomplishments

## Coral Reefs

- Planetary Coral Reef Expedition to Map & Monitor Reefs (1991-2008) (science.pcrf.org)
- Google Earth Ocean Demo
- Immersive Media 360° Underwater Geo-referenced Reef Maps
- Coral Reef Satellite Mission Concept
- Global Warming & Coral Reefs

## Ocean-Going Research Vessel

- Continuous Operation of a Research Vessel (1991 – 2008)
- Onboard Apprenticeship Programs (Seamanship, Leadership & Outreach)
- *Join the Voyage* Internet Educational Program (jointhevoyage.org)
- Marine Mammal & Sea Turtle Observation Program

## Studio of the Sea

- Mini-films aired on Current TV, Link TV, & World Water Expo Zaragoza Spain
- Mini-films hosted online at studioofthesea.org as well as on YouTube
- Images about global warming and reef devastation aired in *An Inconvenient Truth*

## Wastewater Gardens®

- Constructed over 100 ecological waste-recycling systems in Mexico, USA, Australia & Bali

## Space Biospheres

- Mars On Earth® Concept
- Laboratory Biosphere Research & Development

## BF also serves as the fiscal sponsor for the following projects:

- Rainforest Enrichment Project & Earthwatch (2000-2007)
- Beyond Boundaries – an education-outreach leadership program (2010-Present)

## Main Web Pages

[www.biospherefoundation.org](http://www.biospherefoundation.org)

[www.biosfirindonesia.org](http://www.biosfirindonesia.org)

[www.studioofthesea.org](http://www.studioofthesea.org)

[www.jointhevoyage.org](http://www.jointhevoyage.org)

[www.pcrf.org](http://www.pcrf.org)