

# The Forest Guardian

The Newsletter of EcoLogic Development Fund

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EcoLogic Development Fund helps poor, rural communities to become environmental stewards by providing them with the tools they need to manage their natural resources and improve their living conditions.

## EcoLogic Helps Fishermen and Their Communities By Reducing Pollution, Raising Awareness, and Giving Hope

Jorge Rocero is a fisherman from Punta Alegre, a small, remote community located along the Gulf of San Miguel in the Darién Province of eastern Panama. Like many of his friends and neighbors, Jorge spends his days fishing in the gulf, particularly in and around the mangroves that line the coast. The mangroves serve as habitat and nurseries for the majority of fish, crabs, and shrimp in the area. But in recent years Jorge has seen these wetlands and the water itself become increasingly polluted.

"The mangroves are threatened by pollution," he said, "contaminated by garbage and by chemical products that the people apply to their grass and trees."

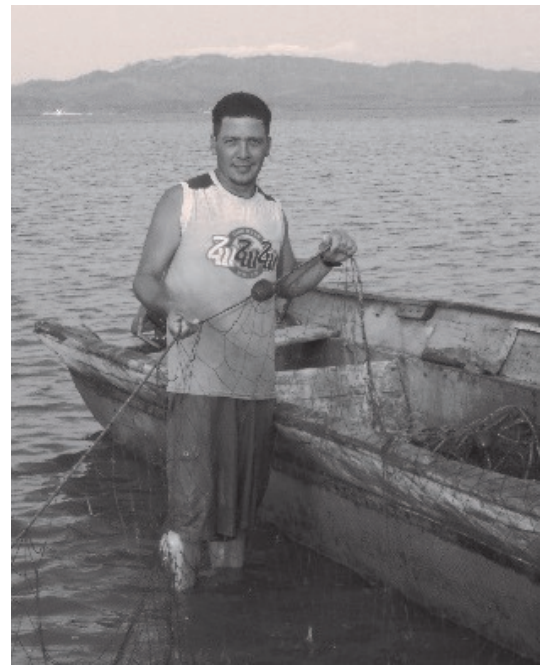
As a result, it has been difficult for Jorge and other fishermen to find the fish they need to feed their families and make a living. "When I was a child, the fish could be found close to the shore and in great numbers. Today, one has to go very far to find fish and will find very little. There are species that have disappeared, like snook, and there are different species that weren't here before."

Around 16,900 people reside in 15 communities in the area, including Emberá and Wounaan indigenous groups. These residents primarily depend on fishing for subsistence and for their local economy, though a third of the population lives in extreme poverty.

Twenty rivers flow into the Gulf of San Miguel, and the coastal zone includes a diversity of aquatic habitats. The area also contains 16 percent of the country's mangroves.

Mangroves, or mangrove forests, are communities of trees and shrubs that grow in salty coastal areas of the tropics and subtropics. They are unique and dynamic environments, home to a wide diversity of fish, mollusk, crustacean, and bird species. Because of their location along the

*PANAMA—continued on page 4*



**EcoLogic is working with Jorge Rocero to help his community to reduce pollution and conserve mangroves that are home to the area's fish populations.**

## How Will You Celebrate Biodiversity This Year?

Did you know that there are nearly a million different types of insects? That's more than three times the number of plant species and almost 200 times the number of mammal species!

Unfortunately, due to human activities like urban sprawl, agriculture, and the burning of fossil fuels, Earth's incredible diversity of living things—or biodiversity—is severely threatened. According to the UN, species are being lost at a rate 100 to 1000 times faster than the normal rate of extinction.

In an effort to slow the rapid loss of Earth's diversity of life, the United Nations proclaimed 2010 to be the International Year of Biodiversity and people all over the world are recognizing the importance of valuing the variety of life.

Biodiversity ranges from the bacteria too small to see to mammals and birds and even humans. It

also refers to the way in which these life forms interact with each other and their environments.

This diversity of life is crucial for our own survival. Living things regulate the water cycle, the atmosphere, and climate. They provide raw materials and cycle nutrients in the soil. They even provide us with basic needs like food and medicine. And of course, natural wonders also enrich our lives culturally and spiritually.

The International Year of Biodiversity is an opportunity to appreciate the vital role that biodiversity plays in our lives and to take action to conserve it. How do you value biodiversity in your life? What does the natural environment mean to you? Tell us and we'll share your story with others on our Earth Day website. Just visit [www.ecologic.org/earthday](http://www.ecologic.org/earthday) today! •



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## MESSAGE FROM THE EXECUTIVE DIRECTOR

### Helping Local People Become Forest Guardians

You may have noticed something different about this newsletter: there's a title.

After many years of providing you with the latest news about our work, we decided that it was time to give a title to our newsletter – an identity to match our personality, a name to our face.

With the help of some friends, we decided on "The Forest Guardian." Forests are central to our efforts to ensure access to clean water, restore critical habitats, and help people provide for themselves. This new name also captures our belief in the importance of fostering local environmental stewardship to conserve tropical landscapes.

Many families in Mexico and Central America are facing a serious threat: with the destruction of the natural environment, they are losing the very land that sustains them. The ability of poor, rural people to provide for themselves is often directly linked to the environment, whether it be through agriculture, fishing, forest products, or other goods provided by nature. Unless these communities become more effective stewards of their natural resources, there may soon be many who are unable to meet their basic needs or provide

for their families.

As noted in our feature article, the fishermen of the Gulf of San Miguel depend on the fish, crabs, and shrimp that inhabit mangrove forests in order to feed their families and sustain the local economy. But garbage and pollution are harming the mangroves and significantly reducing the catch, putting the fishermen and their communities at risk.

With your support, EcoLogic is working with these communities to reduce pollution and, more importantly, to help the people secure their own futures by safeguarding the environment on which their lives depend. In short, we are helping them to become forest guardians!

We cannot do this work without supporters like you. Thank you for your continued passion and commitment.



### Study of Wetlands in Mexico Complete, EcoLogic to Explore Ideas for Mangrove Conservation

Located along the Gulf of Mexico, the Alvarado Wetlands in Veracruz, Mexico, consist of a system of more than 100 coastal, brackish lagoons and parts of the Papaloapan, Acula, Blanco, and Limón Rivers.

Covering an area of 691,895 acres, the wetlands contain an incredible diversity of habitats and living things. They are home to 356 different bird species, the American manatee and 46,950 acres of mangrove forests. They have even received international recognition for their biological importance from the Ramsar Convention on Wetlands, an international treaty to conserve and sustainably utilize wetlands.

The Alvarado wetland is of extreme ecological and economic importance for the rural communities that depend on this environment for fishing, protection from storm surges, erosion control and nutrient cycling. However, there are several threats to the wetlands, including the cutting of mangrove trees, extensive cattle ranching, overfishing, the use of banned fishing nets, and agricultural expansion, particularly for sugar cane. Although there have been efforts to restore these areas, there has been limited success since mangrove tree species require particular conditions for survival and reforestation of mangroves can be rather expensive.

Along with Pronatura Veracruz and the Mexican Secretariat for Social Development and the

Environment (SEDESMA), EcoLogic financed a study to determine the best way to conserve and restore this unique environment. The report concluded that for restoration of the mangroves, it is crucial to first re-establish the natural flow of water that the mangroves need to survive. The study also recommends that mangroves be planted only where the right conditions exist, though these areas are limited due to the expansion of agriculture.

EcoLogic is now working with Pronatura Veracruz to explore ideas that will help the local communities to conserve and restore the mangroves. Stay tuned for more information! •



**A field technician studies mangrove tree saplings, planted nine months earlier, in Veracruz, Mexico. (Photo credit: Ixchel M. Sheseña Hernández)**

## VOICES FROM THE FIELD

### Two Women from Panama Share Their Hopes for the Future

**Martina Mosquera, an indigenous woman of the Emberá tribe, lives in the village of Punta Alegre on the Gulf of San Miguel in eastern Panama.**



**Why is the environment important to you?**

Because from the environment we get water, and when you have water, you are happy.

**How is life different today from when you were a child?**

When I was little, there existed many things: animals, trees, water. I used to bathe myself in a waterfall.

**What problems do you and your community face?**

We do not have electricity nor water. We have many illnesses from drinking water from a well. It is contaminated. And when someone becomes sick, they have to get to La Palma [a town several miles away]. If it is serious, they die on the way.

**What problems threaten the local environment?**

The cutting down of trees. There are no shrimp because they have fished them all. And the contamination of the sea from garbage.

**How do you hope EcoLogic will help your community?**

We would like very much that [EcoLogic] will help us to gain access to clean water, because no one is helping us.

**What would you like to say to people in the United States?**

[I would like to ask] that they help us with our water. We need it desperately for drinking, washing, bathing, mopping, and cooking.

**“I wish that the children of tomorrow are not like us with so many problems.”**

**Ovina Hurtado is a community leader in Punta Alegre.**

**Why is the environment important to you?**

Because the environment is everything that surrounds us. Without it, we could not live.

**How is life different today from when you were a child?**

It was very different before. It was tranquil. There was no agitation. We lived on agriculture, fishing, and hunting. Nowadays almost all of that is finished. There is nothing. We have damaged all the habitats and the things we get from the sea are scarce because of the contamination.

**What problems do you and your community face?**

We need water and electricity, first and foremost.

**What problems threaten the local environment?**

Pollution from garbage, such as fishing nets, excessive fishing, the nets that are put at the mouth of rivers, and the new method of using nets that extend all the way to the bottom of the water.

**How do you hope EcoLogic will help your community?**

It is important because EcoLogic is motivating us to obtain clean water. It has opened our eyes, so that we are more cautious and we do not damage our environment. Aside from EcoLogic, we were abandoned, like all the governments have done.

**What would you like to say to people in the United States?**

I wish that this community rises, that we have water, electricity, and a clean community. [I wish] that the children of tomorrow are not like us with so many problems. •

## You Can Help!

Our work is made possible by support from people like you. Here's how you can help:

- Sustain our work with monthly giving. Just \$20 a month can make a huge difference for the rural poor and the environment!
- Have your employer match your contribution.
- Honor a birthday, wedding, bar/bat mitzvah or anniversary with a donation to EcoLogic.
- Participate in workplace giving. CFC# 11432
- Share your talents by donating professional services.
- Donate via our website. Simply go to [www.ecologic.org](http://www.ecologic.org) and click on Donate Now to give through our secure online donation form.



### Want to really help?

#### Become an Ambassador!

Ambassadors support EcoLogic by reaching out to their friends and families and introducing them to the organization and its work.

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PANAMA – continued from page 1  
shore of oceans and rivers, mangroves also provide protection from storm surges, high



**Panamanian fishermen depend on the fish and shrimp that live in mangroves like these.**

winds and erosion of the coastline.

To reduce pollution of the mangroves, EcoLogic and its partner Fundación Natura – a Panamanian organization – are working with five communities to design plans for solid waste management and wastewater treatment. This includes collecting and properly disposing of trash and constructing latrines. EcoLogic also plans to work with community members to protect and restore local water resources to secure clean water for the communities.

In order to ensure a vibrant future for the mangroves and the fish that serve as the basis for the local economy, EcoLogic is supporting the local communities to prepare a formal request to the national government to

declare a protected area around the Gulf of San Miguel. EcoLogic is also working with the local organization of fishermen to assist them in promoting sustainable fishing practices and generating more income through better marketing, as well as serving as an effective advocate for the declaration of a protected area.

Jorge believes that EcoLogic can make a real difference for his community and their natural environment. “I hope that EcoLogic helps our communities realize not to throw trash in the sea or on the beach – that when we find garbage we should pick it up.”

More importantly, EcoLogic is giving hope to communities that have been neglected by their government, providing needed support to help the people improve their own lives.

“There are things the government has not done. As a non-governmental organization, EcoLogic employees really put their hearts into their work,” Jorge observed. “EcoLogic is a support to the community. Each community should have someone like EcoLogic to guide them.”

His vision of the future is one in which the people are optimistic and environmentally conscious, where communities develop sustainably, and where the mangroves are permanently intact and serve as a refuge for marine life.

“The ideal would be that, more than simply being productive, we should also know how to always maintain these same resources that sustain us. We have precious mangroves, and together with the help of EcoLogic and its supporters, we can find ways to protect them.” •

**“Each community should have someone like EcoLogic to guide them.”**

## Mangroves: Unique Forests by the Sea

**H**ave you ever seen a tree that breathes through its bark? Have you seen roots that grow right out of a tree’s branches? You would if you ever visited a mangrove forest!

Mangroves are communities of trees and shrubs that grow in salty coastal areas of the tropics and subtropics. Mangrove plants have unique adaptations to help them survive their environments, which are often very high in salt, low in nutrients, and experience high variability in the water level, depending on the tides. For instance, some trees secrete salt through their leaves. Many mangrove trees also have long, stilted roots that reach out of the water, and some have

roots that grow up out of the thick, muddy soil or hang down from the trees’ branches. These trees have pores in the bark of their trunks and roots that allow them to breathe and absorb nutrients missing from the soil.

Unfortunately, it is estimated that more than 20 percent of the world’s mangroves have disappeared since 1980, mostly due to coastal development. Given that 75 percent of all commercial fish species spend some part of their life cycle in mangroves, fisherman like Jorge Rocero in Panama are deeply concerned. “If the mangroves disappear,” he said, “all of the fish disappear.”

Help EcoLogic conserve these habitats at [www.ecologic.org/mangroves](http://www.ecologic.org/mangroves). •