



Project Overview, Conservation Plan and Budget
Saving Sea Turtles and Coastal Ecosystems in Guatemala
ARCAS – Wildlife Rescue and Conservation Association
Fundraising Goal: US\$25,000
About ARCAS

ARCAS is a Guatemalan nonprofit organization dedicated to the rescue, rehabilitation, conservation, and protection of wildlife and natural ecosystems.

For decades, ARCAS has worked to address some of Guatemala's most urgent biodiversity challenges through wildlife rescue, environmental education, scientific research, habitat conservation, community engagement, and the release of rehabilitated animals back into the wild.

ARCAS operates conservation programs in different regions of Guatemala, including wildlife rescue and rehabilitation in northern Guatemala and marine and coastal conservation initiatives along the Pacific coast.

A core principle of ARCAS's work is that wildlife conservation cannot be achieved without also protecting habitats and involving the communities that share those ecosystems. For this reason, ARCAS combines direct conservation action with environmental education, scientific monitoring, community participation, local employment, and sustainable alternatives that encourage people to become active partners in protecting Guatemala's biodiversity.

Project Background:

Guatemala's Pacific coast is an important nesting area for sea turtles, especially the olive ridley sea turtle, locally known as the *parlama*. Other threatened species, including green turtles and leatherback turtles, may also use Guatemala's coastline.



Sea turtles face numerous threats throughout their life cycle. On nesting beaches, eggs and hatchlings are vulnerable to human collection, predators, coastal development, pollution, artificial lighting, habitat degradation, and the increasingly severe effects of climate change.

At the same time, the coastal ecosystems that support sea turtles are under growing pressure. Mangrove forests, estuaries, beaches, wetlands, and marine habitats are affected by deforestation, plastic pollution, unsustainable use of natural resources, expanding development, and changing climate conditions.

Protecting sea turtles therefore requires much more than protecting individual nests. It requires protecting the entire ecosystem that allows these species, and the coastal communities that depend on these natural resources, to survive.

Saving Sea Turtles and Coastal Ecosystems in Guatemala builds upon ARCAS's long-standing sea turtle conservation work by taking a broader, ecosystem-based approach that combines species protection, habitat restoration, scientific monitoring, environmental education, and community participation.

The Problem:

Sea turtles are especially vulnerable because they take many years to reach reproductive maturity and only a small percentage of hatchlings survive to adulthood.

In Guatemala, they face several interconnected threats, including extraction and commercialization of eggs, degradation of nesting beaches, plastic and solid waste pollution, destruction of mangrove forests, artificial lighting, coastal development, climate-related changes in nesting conditions, and limited environmental awareness in some coastal areas.

Economic pressures can also encourage unsustainable use of natural resources, especially in communities where livelihood alternatives are limited.



These challenges cannot be addressed separately.

A sea turtle hatchling released today will need healthy oceans, productive coastal ecosystems, intact mangroves, and suitable nesting beaches throughout its life. For this reason, ARCAS seeks to address both species conservation and habitat protection through a single integrated project.

Project Goal:

The main goal of the project is to:

Protect sea turtles and restore the coastal ecosystems they depend on while strengthening environmental awareness and community participation along Guatemala's Pacific coast.

The project combines direct wildlife conservation with ecosystem restoration, scientific monitoring, environmental education, community engagement, and sustainable local participation.

Main Project Activities:

1. Sea Turtle Nest Protection:

During nesting season, trained conservation staff and local guides patrol beaches to locate nesting females and vulnerable nests.

When necessary, eggs are transferred to protected hatchery areas where they can incubate under monitored conditions.

Activities include nighttime beach patrols, identification and monitoring of nests, protection of vulnerable nests, relocation of eggs when required, monitoring of incubation conditions, documentation of hatching success, and release of hatchlings into the Pacific Ocean.



These actions improve the chances that eggs will hatch successfully and that more hatchlings will safely reach the sea.

2. Sea Turtle Hatchery Management:

ARCAS manages conservation hatchery activities along Guatemala's Pacific coast.

Hatcheries provide protected conditions where eggs can develop away from many of the threats present on open beaches.

Staff monitor nests throughout the incubation period and record important conservation data, including the number of eggs received, species, nest location, incubation period, number of hatchlings, hatching success, and release dates.

This information helps ARCAS evaluate the effectiveness of conservation actions and contributes to long-term monitoring of sea turtle populations.

3. Scientific Monitoring:

Scientific monitoring is essential for understanding whether sea turtle populations are recovering, stable, or declining.

ARCAS supports long-term monitoring of nesting activity along the Pacific coast and gathers information that can help identify changes in sea turtle populations and nesting patterns.

Monitoring can include nesting activity, number of nests, species identification, hatch success, beach conditions, changes in nesting distribution, and the presence of rare or highly threatened species.

Reliable scientific data allow ARCAS and conservation partners to improve management decisions and adapt protection strategies over time.



4. Mangrove Conservation and Restoration:

Mangroves are among the most valuable ecosystems along Guatemala's coast.

They provide nursery habitat for fish and other marine species, support birds and wildlife, improve water quality, store carbon, and help protect coastal communities from storms, flooding, and erosion.

The project will support mangrove conservation and restoration through native planting, habitat rehabilitation, protection of degraded areas, field monitoring, and community participation in restoration activities.

Protecting mangroves benefits both wildlife and people and strengthens the overall resilience of coastal ecosystems.

5. Beach and Coastal Cleanup Activities:

Plastic pollution and improperly managed solid waste represent serious threats to marine wildlife.

Sea turtles can ingest plastic, become entangled in discarded materials, or encounter obstacles on nesting beaches.

ARCAS will organize and support coastal cleanup activities involving staff, volunteers, students, and community members.

These activities will help remove plastic and other waste from beaches, reduce risks to wildlife, improve nesting habitat, and raise public awareness about responsible waste management.

6. Environmental Education:

Long-term conservation depends on changing attitudes and strengthening environmental awareness.



ARCAS works with children, young people, schools, families, volunteers, visitors, and coastal communities to promote understanding of marine conservation and responsible use of natural resources.

Educational topics may include sea turtle biology, importance of nesting beaches, mangrove ecosystems, plastic pollution, climate change, wildlife protection, sustainable tourism, and community participation in conservation.

Children and young people are especially important because they represent the next generation of environmental stewards.

7. Community Involvement:

ARCAS believes that effective conservation must involve the people who live alongside wildlife.

The project therefore seeks to strengthen local participation in sea turtle and coastal ecosystem conservation.

Community involvement may include local conservation guides, beach patrols, hatchery activities, environmental education, mangrove restoration, beach cleanups, wildlife monitoring, and sustainable tourism initiatives.

Whenever possible, ARCAS seeks to create economic opportunities connected to conservation rather than resource extraction.

This approach helps demonstrate that protecting wildlife and ecosystems can also provide long-term benefits for local communities.



Expected Impact:

Through this project, ARCAS expects to contribute to greater protection of sea turtle nests, increased numbers of hatchlings safely reaching the ocean, improved scientific information about sea turtle populations, restoration and protection of mangrove ecosystems, cleaner beaches and coastal environments, increased environmental awareness, and stronger involvement of coastal communities in conservation.

The project also seeks to strengthen cooperation among communities, conservation organizations, volunteers, researchers, donors, and government institutions.

Its broader goal is to build a conservation model in which healthy wildlife populations, healthy ecosystems, and healthy communities reinforce one another.

Long-Term Vision:

Sea turtle conservation cannot be measured only by the number of hatchlings released each year.

A turtle released today may take many years before returning to the coast to reproduce. For that turtle to survive, the ocean must remain healthy. For it to return and nest successfully, the beaches and coastal ecosystems must still exist.

ARCAS's long-term vision is therefore to ensure that future generations of sea turtles continue to find safe nesting beaches along Guatemala's Pacific coast.

The organization also seeks to ensure that coastal communities see conservation as an opportunity for education, local participation, sustainable development, and pride in Guatemala's natural heritage.

Saving a sea turtle also means saving the ecosystem it needs to come home to.



Who Benefits?

The primary wildlife beneficiaries include olive ridley sea turtles, green sea turtles, leatherback sea turtles, coastal and marine wildlife, mangrove-dependent species, shorebirds, and other coastal fauna.

Human beneficiaries include coastal families and communities, local conservation guides, children and young people participating in environmental education, schools, researchers, volunteers, visitors, responsible tourists, and future generations who depend on healthy coastal ecosystems.

Use of Donations:

Donations to this project will support essential conservation activities, including sea turtle nest protection, beach patrols, hatchery operations, local conservation guides, scientific monitoring, mangrove restoration, native planting materials, beach cleanup activities, environmental education, transportation, field logistics, conservation equipment, outreach, project coordination, and reporting.

Every contribution will help strengthen a conservation program that protects not only individual animals, but also the ecosystems that sustain them.

Proposed Project Budget:

Total Fundraising Goal: US\$25,000

Budget Category	Amount	% of Total
Sea Turtle Nest Protection & Hatchery Operations	\$7,000	28%
Local Conservation Staff & Community Guides	\$4,500	18%
Scientific Monitoring & Field Equipment	\$2,500	10%
Mangrove Restoration & Habitat Conservation	\$3,500	14%



Budget Category	Amount	% of Total
Beach Cleanups & Waste Reduction	\$1,500	6%
Environmental Education & Community Outreach	\$2,000	8%
Transportation & Field Logistics	\$2,000	8%
Project Coordination, Reporting & Administration	\$2,000	8%
Total	\$25,000	100%

Budget Narrative:

Sea Turtle Nest Protection & Hatchery Operations — \$7,000

This is the largest component of the project because direct protection of nesting sea turtles remains one of ARCAS's core conservation activities on Guatemala's Pacific coast.

Funds will support nighttime beach patrols, nest protection, relocation of vulnerable nests when necessary, hatchery operations, incubation monitoring, hatchling releases, and essential field supplies.

Local Conservation Staff & Community Guides — \$4,500

Successful conservation depends on the people who work directly on the beaches and within coastal communities.

This allocation will help support local conservation guides and field personnel who participate in beach patrols, nest monitoring, hatchery work, restoration activities, environmental education, and community engagement.



Whenever possible, ARCAS seeks to involve people from nearby communities so that conservation also creates local economic opportunities.

Scientific Monitoring & Field Equipment — \$2,500

Scientific monitoring allows ARCAS to evaluate nesting trends, hatching success, species presence, and changes in coastal ecosystems.

Funds will support monitoring equipment, data collection materials, field tools, documentation, and other resources needed for long-term conservation monitoring.

Reliable data are essential for improving conservation strategies and measuring project impact over time.

Mangrove Restoration & Habitat Conservation — \$3,500

Sea turtles are part of a much larger coastal ecosystem.

Mangroves provide habitat for fish, birds, reptiles, and many other species while also helping protect communities from erosion, storms, and flooding.

This portion of the budget will support mangrove restoration, native planting materials, habitat rehabilitation, field activities, and community participation in ecosystem restoration.

Beach Cleanups & Waste Reduction — \$1,500

Plastic and solid waste threaten sea turtles and other marine wildlife.

Funds will support beach cleanup materials, local transportation, waste collection, logistics, and community participation.

These activities also serve as important environmental education opportunities.



Environmental Education & Community Outreach — \$2,000

Long-term conservation requires awareness and participation.

This allocation will support workshops, school activities, educational materials, community meetings, volunteer engagement, and awareness campaigns focused on sea turtles, mangroves, marine pollution, and responsible use of natural resources.

Transportation & Field Logistics — \$2,000

Many conservation activities take place in coastal locations that require regular transportation of staff, volunteers, equipment, and supplies.

Funds will help cover fuel, local transportation, field logistics, and access to nesting beaches, hatcheries, mangrove restoration sites, and community activities.

Project Coordination, Reporting & Administration — \$2,000

Strong project management is essential to ensure that conservation activities are properly coordinated, documented, evaluated, and reported.

This allocation will support project coordination, financial administration, donor reporting, documentation, communication, and other operational costs directly related to project implementation.

What US\$25,000 Can Help Achieve:

A US\$25,000 investment will allow ARCAS to strengthen an integrated conservation program that protects sea turtles while also addressing the health of the ecosystems and communities surrounding them.

Funding will help ARCAS protect sea turtle nests and release hatchlings safely into the Pacific Ocean, maintain conservation hatchery operations, support local conservation guides, collect



scientific data on nesting and hatching success, restore and protect mangrove habitats, remove plastic and solid waste from coastal areas, educate children and communities about marine conservation, and build stronger local participation in protecting Guatemala's Pacific coast.

The ultimate impact goes beyond the number of hatchlings released.

The project seeks to ensure that the beaches, mangroves, and coastal ecosystems these turtles depend on remain healthy for future generations.

Sustainability:

The long-term sustainability of the project is based on several complementary strategies.

Community participation helps ensure that local residents are directly involved in conservation activities and understand the benefits of protecting wildlife and ecosystems.

Environmental education helps children, families, and communities develop knowledge and values that can influence future conservation decisions.

Scientific monitoring provides long-term data that allow ARCAS to evaluate results and adapt conservation strategies as environmental conditions change.

Partnerships with communities, government institutions, researchers, volunteers, donors, and conservation organizations increase the project's capacity and long-term impact.

Finally, an **ecosystem-based approach** strengthens sustainability by protecting sea turtles, mangroves, beaches, and coastal biodiversity together rather than treating each challenge separately.



Why Support This Project?

A sea turtle may spend only a few minutes crossing a beach after hatching, but its survival depends on an entire ecosystem.

Supporting this project means helping protect the beaches where turtles are born, the mangroves that sustain coastal biodiversity, the ocean they depend on, and the communities whose future is closely connected to these natural resources.

With donor support, ARCAS can continue protecting Guatemala's extraordinary marine biodiversity while creating a future in which people and wildlife can thrive together.

By protecting sea turtles today, we are also protecting the coast they will need to return to tomorrow.