

**LEVER FOR
CHANGE**



Bold Solutions Network

An initiative of Lever for Change, a John D. and Catherine T. MacArthur Foundation affiliate



Top Nature and Biodiversity Proposals

April 2020

About This Collection

[Lever for Change](#) is excited to present an opportunity to fund the top nature and biodiversity proposals from the second round of *100&Change*, the John D. and Catherine T. MacArthur Foundation's \$100 million global competition. *100&Change* will fund a single proposal that will make measurable progress toward solving a significant problem. Each proposal was assessed using four criteria: impactful, evidence-based, feasible, and durable, and was rigorously evaluated, undergoing MacArthur's initial administrative review, a Peer-to-Peer review, an evaluation by an external panel of judges, and a technical review by specialists whose expertise was matched to the project. The organizations featured in this collection are among *100&Change*'s Top100 which are the highest-scoring proposals selected out of more than 750 vetted applications submitted from over 85 countries. Lever for Change's [Bold Solutions Network](#) currently showcases the Top100, and will be periodically updated to include other highly-rated, vetted proposals that emerge from Lever for Change competitions. This collection of top proposals provides donors with an innovative approach to finding and funding effective organizations working to protect the earth's natural habitats and ecosystems.

Navigating this Collection

Below is a summary of ways to engage with the selected proposals in this collection:



Top applicants submitted 2-page factsheets to summarize their projects and promote their work. Under each proposal listed on the Table of Contents, you can click on the page numbers to jump directly to the selected 2-page factsheet.



Additionally, organizations submitted 90-second videos to describe their projects. You can view each video by clicking on the "project video" link under each proposal, or you can watch a playlist of all the project videos by clicking the link at the top of the Table of Contents page.



To view a summary of information that was captured during the application process, you can visit the project's Bold Solutions Network online profile page, which is also linked under each project in the Table of Contents.

Next Steps

These organizations are ready to solve critical problems and are seeking resources to make it happen. Donors who are interested in providing significant financial support to Bold Solutions Network proposals should contact Dana Rice, Vice President of Philanthropy, at ddrice@leverforchange.macfound.org.

Learn More

If there is a particular project you are interested in learning more about, we'd be happy to provide supplemental information and analyses to allow you to dig deeper into the proposal. We can also create additional curated lists if you are interested in exploring top proposals in another issue area.

Connect with Bold Solutions Network Organizations

We are happy to help broker connections to the organizations featured in this collection or any of the organizations you see on the Bold Solutions Network.

Support Bold Solutions Network Proposals

If there is a particular proposal you are ready to fund, we can answer questions you may have about how to best support the project and/or organization.



Table of Contents

Nature & Biodiversity Proposals

To view a video playlist of the proposals in the order that they appear in this booklet, please [click here](#).

Please note, proposal order is alphabetical by organization; not reflective of ranking



Arizona State University

Global Biodiversity Observatory to Reverse the Sixth Extinction

[View factsheet on pages 3-4](#)



[Bold Solutions Network Online Profile Page](#)



[Project Video](#)



Plant-for-the-Planet Foundation

Trillion Tree Global Network

[View factsheet on pages 9-10](#)



[Bold Solutions Network Online Profile Page](#)



[Project Video](#)



Fundação Amazonas Sustentável

Amazon is Too Big to Fail: Sustainable Development in Action

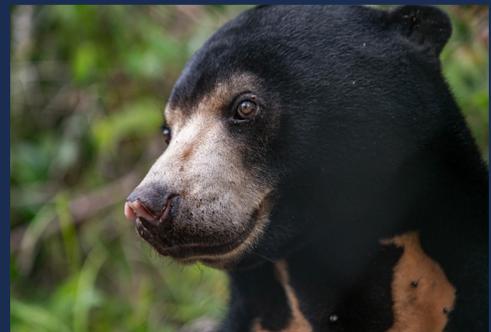
[View factsheet on pages 5-6](#)



[Bold Solutions Network Online Profile Page](#)



[Project Video](#)



Wildlife Alliance

Saving the Cardamoms in Perpetuity for the Planet

[View factsheet on pages 11-12](#)



[Bold Solutions Network Online Profile Page](#)



[Project Video](#)



National Marine Mammal Foundation

JANE: Justice & Action Network for the Earth

[View factsheet on pages 7-8](#)



[Bold Solutions Network Online Profile Page](#)



[Project Video](#)



World Wildlife Fund, Inc.

Saving Nature to Save Lives in Marginalized Latin American Communities

[View factsheet on pages 13-14](#)



[Bold Solutions Network Online Profile Page](#)



[Project Video](#)

GLOBAL BIODIVERSITY OBSERVATORY:

A novel constellation of small satellites will drive a global decision-support system and social movement empowering people to rapidly reduce biodiversity loss worldwide

OUR VISION AT A GLANCE

Satellite constellation frequently mapping the world's ecosystems, including their carbon and biodiversity composition, over time.

Airborne laboratory gathering realtime data to calibrate new satellite constellation for carbon, biodiversity and habitat algorithms.

Unleashing ASU's specialized 3D biodiversity mapping for Earth using Planet's satellite capabilities.

Detailed, ground-actionable map continuously produced worldwide and at high spatial resolution.

An international user community comprised of professional decision-makers and the public to accelerate solutions that stem biodiversity loss, carbon emissions, and ecological degradation.



The GBO brings together the unique science and technology elements of ASU and Planet Inc. into operational contact with global connectivity and decision support capabilities of One Earth, ASU, and Planet Inc.

- High accessibility
- Real-time data and analysis
- Better decision-making

A simple interface will allow individuals without formal training to interact with data, seeing consequences of land and reef use decisions through configurable scenarios.

ACCURATE | EXPLAINABLE | USEABLE | ROBUST

Earth's biosphere relies upon a complex web of interdependent organisms, yet we haven't been able to see these organisms and their habitats changing in a way that aids sustainable decision-making about nature and people. Until now.

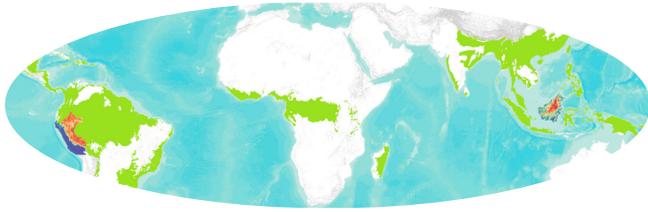
GDCS Innovative Biodiversity Imaging

ASU's Center for Global Discovery and Conservation Science (GDCS) has successfully built high-resolution maps of terrestrial plant biodiversity, coral reef and coastal biodiversity, habitat connectivity and forest biomass. A single ASU aircraft has remotely detected communities of species and their 3D architecture using Laser-guided Imaging Spectroscopy, benefitting countries like Malaysia and Peru, which used detailed maps of Bornean and Amazonian plant communities to identify and protect previously unknown biodiversity.

Creating a Global Biodiversity Observatory for effective Decision-Making

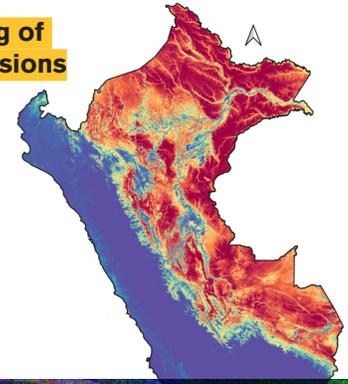
Global access and responsible decision-making require combining GDCS's innovative biodiversity technology and analysis with global carbon mapping, habitat science indicators, and effective decision support capabilities. We are proposing a unique partnership with Planet, a revolutionary aerospace company and One Earth, a leader in powerful, science-driven solutions ranging from decision-support systems to public mobilization. We are ready to take this to a global scale, empowering people and reducing biodiversity loss.

An investment in the GBO partnership will provide valuable resources to undertake pathfinding steps that will be highly impactful and stand as enormous contributions to resource conservation, management and decision-making communities.

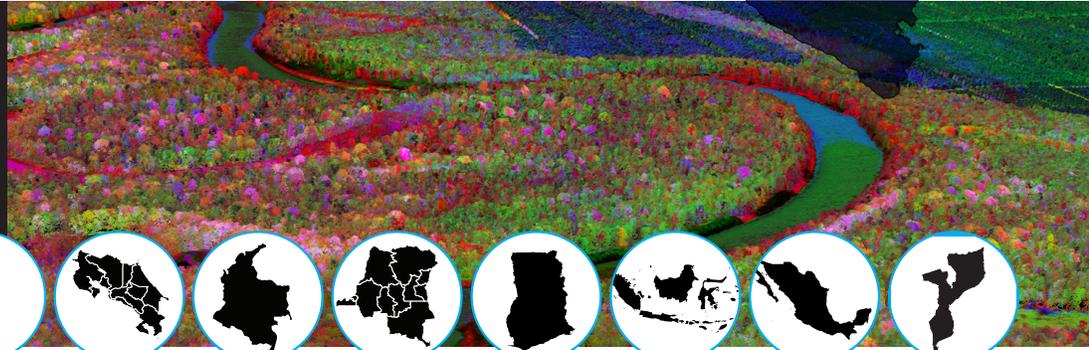


\$1M: Global map of tropical forest carbon stocks using existing Planet Dove satellites, with a public launch and technical advocacy plans provided by One Earth.

\$5M: Global monitoring of forest carbon and emissions over time for all forests using existing Planet Dove satellites, integrated into a public online platform by One Earth/Azavea.



\$10M: All of the above plus a one-time mapping of forest canopy biodiversity in 8 key countries, with policymaker workshops led by One Earth partners, including World Future Council.



Chile

Costa Rica

Colombia

Democratic Republic of the Congo

Ghana

Indonesia

Mexico

Mozambique

STEPPINGSTONES TO GBO's IMPACT

We invite investors to help communities apply terrestrial and marine biodiversity information to decisions about natural capital investments essential for human livelihoods, food productivity, water security, carbon sequestration, and disaster reduction.

\$10M (3 years) Through global satellite monitoring of carbon stocks and emissions the GBO will have the greatest impact on empowering people and reducing biodiversity loss. In addition, eight key countries will be provided highly detailed forest canopy imaging from the GDCS Airborne Observatory, biodiversity analysis, and tools needed for effective decision-making. An easy-to-use, interactive website will allow individuals without formal training to interact with data, seeing the consequences of

land-use decisions through configurable scenarios. The decision-making tools developed through this investment will be later utilized world-wide to stem biodiversity loss.

\$5M (3 years) The GBO will generate and share satellite monitoring of carbon stocks and emissions for global forests onto a public online platform that allows the broader public to view an evolving "map of life". This steppingstone enables development of an integrated online

platform for world-wide monitoring of carbon biomass, enabling biodiversity advocacy through a public tool for global awareness and decision-making.

\$1M (1 year) A one-time global map of tropical forest carbon stocks using existing Planet Dove satellites, with a public launch and technical advocacy plans provided by One Earth. This steppingstone will enable public access a global map of carbon stocks to assist policymakers.

Like a health monitoring system for the planet, the GBO will equip decision makers at all levels of government, businesses, and the general public with information needed to stem biodiversity loss, curb carbon emissions, and avoid ecological degradation.



ASU Center for Global Discovery and Conservation Science (ASU-GDCS)'s multi-million dollar projects in 132 countries have led to new terrestrial and marine protected areas and improved environmental governance at sub-national, national and international levels.

With over 400 satellites, a scientific and engineering team from NASA, Department of Defense, and the broader scientific and technology communities, Planet Inc. has deployed the largest earth imaging constellation to observe the entire earth's landmass and coastal regions daily.

Bringing together over 40 leading scientists and dozens of NGOs and academic institutions, OneEarth has led groundbreaking scientific collaborations and numerous cutting-edge media projects to address the twin crises of climate change and biodiversity loss.



Making the
forest worth
more standing
than cut



The Amazon is too big to fail: eradicating poverty and deforestation in the Amazon

Sustainable development in action

The Amazon is being destroyed at alarming rates and will face an ecological collapse before 2030, with profound consequences for the future of the planet.

However, it is possible to have hope. Established in 2008, the [Sustainable Amazon Foundation \(FAS\)](#), the largest Brazil-based organization in the Amazon, is dedicated to the conservation of the rainforest through the improvement of the quality of life of traditional communities. Currently, FAS works in 581 communities, benefiting 39,420 people in 16 protected areas, a 10.9 million hectares territory (area similar to NY State).

FAS has been awarded as the best NGO of the Brazilian Amazon in 2017 and 2019, and has received a number of national and international prizes. Within 11 years, FAS has invested over USD 85 million in forest conservation, environmental monitoring, grassroots empowerment, relevant education, income generation, entrepreneurship, research and development, social inclusion and health care.

Due to its results and impacts, FAS has 53 financing partners, including Bradesco Bank (2008), Coca-Cola Brazil (2009), Amazon Fund (2010), Samsung (2010), Petrobras (2018), and Lojas Americanas (2018). In addition to funders, FAS has more than 110 institutional partners, such as municipalities, community-based associations, state secretariats, research institutes, universities, among others.

Through solid governance, state government relations, and result-based management, FAS has contributed to decrease the deforestation rate by 76% and increase family income generation by 202% (2009-2019) in the area where FAS operates.

FAS' solution to deforestation and poverty in the Amazon is based on investing in people and bioeconomy to **make forests worth more standing than cut**. FAS' solution package is called the Standing Forest Programme (SFP), that aims at catalyzing sustainable development in the Amazon.

The programme approach is based on a comprehensive theory of change with two goals: the eradication of poverty and deforestation in the Amazon. It is [implemented](#) through 8 [steps](#): (I) site diagnosis; (II) family registration and inclusion; (III) engagement workshop on climate change and the Amazon; (IV) cash reward due to forest conservation; (V) participatory workshop to [codesign](#) sustainable investments on empowerment and communitarian infrastructure; (VI) implementation



Making the forest worth more standing than cut



in partnership with the communities; (VII) participatory management based on a social learning approach for monitoring, and (VIII) evaluation with [grassroots](#) leaders and partners.

FAS always engages research institutes to support in monitoring and evaluation. One example is the [partnership](#) with the University of Notre Dame on assessing Pirarucu fish supply chain for improving financial returns to communities.

FAS proposal is to scale up its «Amazon bioeconomy» approach to mobilize the region's major assets –its natural capital and its people– to serve local needs for income, health and wellbeing; and global needs for biodiversity and climate regulation.

We would like to invite you to support us in our mission to protect the Amazon and improve the quality of life of indigenous peoples and traditional populations.

Below we present how our project could use donations of different amounts to support sustainable forest-based economy, community empowerment of grassroots leaders, social investments (education, access to water, clean energy, health) and research and development in forest conservation.

USD 1 million

By investing USD 1 million in sustainable forest-based activities locally designed and an SDG-focused holistic approach we will improve the livelihoods of **5 thousand beneficiaries** in indigenous and traditional communities through the sustainable use of over **2 million hectares** of forest across the Brazilian Amazonas State, over the course of 1 year.

USD 5 million

By investing USD 5 million in sustainable forest-based activities locally designed and an SDG-focused holistic approach we will improve the livelihoods of **25 thousand beneficiaries** in indigenous and traditional communities through the sustainable use of over **9 million hectares** of forest across the Brazilian Amazonas State, over the course of 1 year.

USD 10 million

By investing USD 10 million in sustainable forest-based activities locally designed and an SDG-focused holistic approach we will improve the livelihoods of **50 thousand beneficiaries** in indigenous and traditional communities through the sustainable use of over **17 million hectares** of forest across the Brazilian Amazonas State, over the course of 1 year.

February 2020.



Justice & Action Network for the Earth

'Our planet is in the midst of a human-induced mass extinction crisis. One million species are at risk, and thousands have already vanished before our eyes.'

- *Dr. Cynthia Smith*

UN leaders are calling for a radical approach to prevent animal extinction and support human communities in biodiversity hotspots highly threatened by wildlife crime. (UN, 2019)



WHY WE CARE

- Wildlife crime is one of the largest threats to species survival, fueled entirely by humans.
- We have a moral responsibility to protect wildlife for our planet and future generations.
- When animals vanish, ecosystems are permanently altered and human livelihoods falter.

OUR SOLUTION

Conservation scientists, wildlife crime investigators, and award-winning filmmakers join forces to save endangered species.



360° Hotspot Intelligence

Undercover investigators, operating as an intelligence agency for the planet, unravel the upper levels of wildlife crime to create a solution-oriented approach to eliminate threats.



Community-Based Conservation

Conservation scientists partner with local stakeholders to design and build action plans to protect endangered species while strengthening affected communities.

NMFS Permit 18786



Film Impact & Awareness

World-class filmmakers use the power of storytelling to expose wildlife crime and its consequences, raising global awareness and triggering political action.



Blueprint for Change

Our revolutionary approach provides a framework to swiftly save endangered species in critically threatened ecosystems and biodiversity hotspots.

IN ACTION



See our team in action in National Geographic's *Sea of Shadows*, which is applying maximum pressure to save the vaquita porpoise from extinction. www.seaofshadows.film



Netflix's award-winning *The Ivory Game* sparked global awareness that resulted in the Chinese government's ban on the ivory trade, protecting endangered elephants from extinction. www.theivorygame.com

THE TIME TO ACT IS NOW

An investment of \$5-10M will launch JANE in a biodiversity hotspot:

- Intelligence operatives will build a 360° view of threats to critically endangered species and communities in a high-priority hotspot.
- Global conservation experts and local community leaders will utilize this intelligence to launch bold conservation actions.
- Filmmakers will create a prime time docu-series to positively influence public opinion and political action.



Challenge

We are facing a **Climate Emergency** and at the same time people all over the world are on the street asking their leaders to change business as usual and reach zero emissions by 2035.

To stay below +1.5°C we need to invest in carbon sequestration and end the age of fossil fuels. **This decade counts. Let's do it!**

Solution - Trillion Tree Global Network

Our team has one core competence which is **replanting forests**. What started as a vision more than 10 years ago became scientifically proven to be the most effective measure to slow down the climate crisis. Our experience in planting trees in close collaboration with local communities shows the huge potential to restore local ecosystems, protect them in the

long-term and assure livelihoods of historically vulnerable communities.

Now its time to **scale up** - How? Plant-for-the-Planet developed an **app that makes tree planting as easy as never before**. Technology helps to track planting efforts, creates visibility, matches donors and local initiatives at 0 cost and provides transparency.

bit.ly/317gTOD

Scenarios

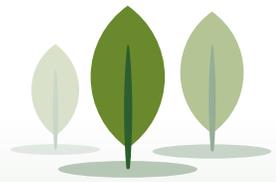


US\$ 1m. would allow us to **plant trees** in our existing projects globally.



US\$ 5m. would allow us to implement strategies to **multiply the impact of your donation**:

- developing and adding **new features to our app**
- Strategic marketing to reach a **larger audience** and user base.
- **Improving quality management**, transparency and reporting
- **Plant trees** in existing projects.



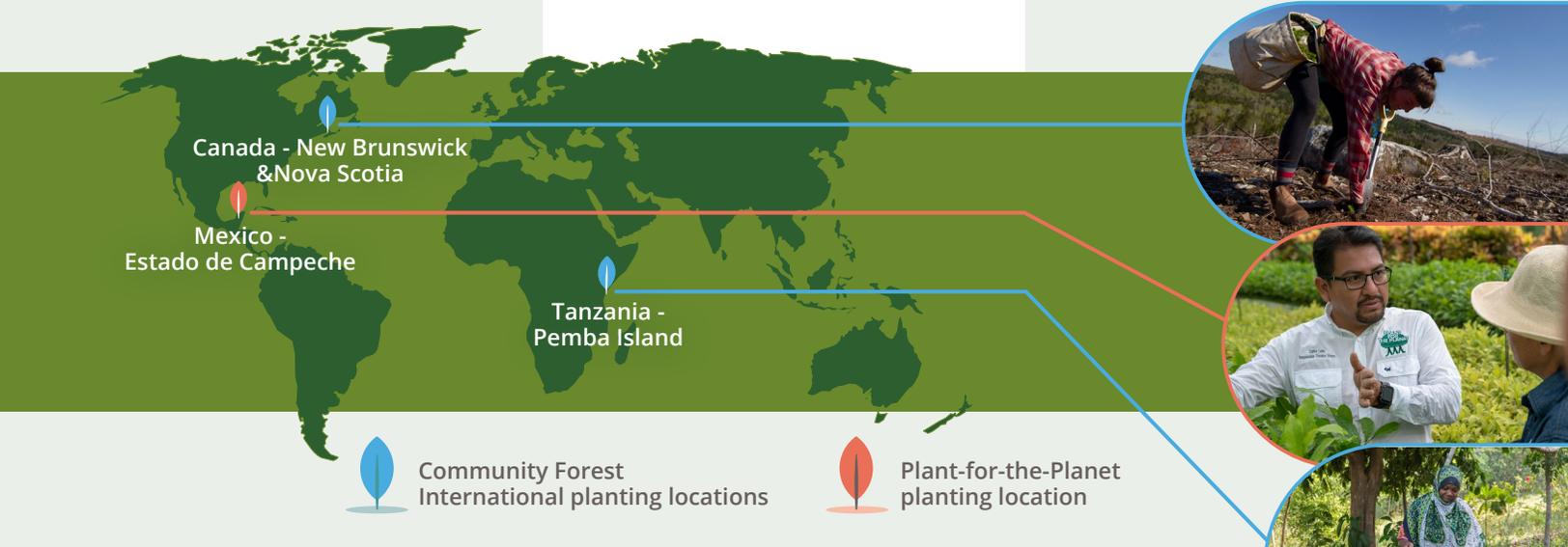
US\$10 m. would allow us to **implement a holistic strategy**:

- developing a **new community project** with indigenous communities.
- Developing and adding **new features to our app**,
- motivating more people to spend money and **multiply the impact** of the donation invested into the development. Supporting this with a marketing strategy involving the users.
- **Improving quality management**, transparency and reporting.
- **Planting trees** in existing projects.

For 13 years now, Community Forests International plants trees and restores forests together with and led by communities in Canada and Zanzibar

ECOLISE is an international network that facilitates collaboration, exchange and mutual learning among community-led initiatives in order to catalyze systemic transformation across society.

Plant-for-the-Planet is a global children and youth initiative founded in 2007 by a then nine-year-old boy. The Foundation leads a reforestation project in Mexico and initiated the global Trillion Tree Campaign.



 Community Forest International planting locations  Plant-for-the-Planet planting location

- 2007**



Felix plants his first tree
- 2009**



Community Forest Pemba launched
- 2011**



Felix speech at the UN
- 2012**



Whaeighinbran forest conserved
- 2016**



25,000 people trained in ecosystem restoration
- 2018**



Launch of the Trillion Tree Campaign
- 2019**



Official app launch
- 2020**



World Economic Forum Davos

bit.ly/2Of7nn3

The biggest crisis of humankind needs visionary solutions – our network joined forces to leverage the most genius solution – **replanting forests!**
 Be a hero, **join our Trillion Tree Global Network as a donor**, get your **kids and humankind a future!** #thisdecadecounts #plantahead

Contact us

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February 2020

Saving the Cardamoms in perpetuity for the planet



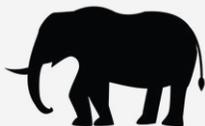
Protecting the natural environment is the cheapest and most effective solution to the climate emergency. However, tropical forests continue to be lost particularly in high biodiversity-low governance countries in the Global South such as Cambodia. Wildlife Alliance implements a proven and effective model of tropical forest protection centered around hands-on field-based protected area management and law enforcement. We have protected the southern Cardamom Rainforest Landscape since 2001; this idea scales-up our proven model and addresses two obstacles: a preference for policy making over practical action and a global mindset that prioritizes technology over nature-based solutions.

Wildlife Alliance in the Cardamom Rainforest Landscape

131 | **3,000**

trained, supervised, equipped, & insured forest rangers operating 24/7 | annual patrols conducted across 8,000-km² of tropical rainforest

Demonstrated Success



Zero Asian elephant poaching in the landscape since 2006



<0.3% annual deforestation compared to >3% elsewhere in Cambodia

Benefits of Intact Rainforest



Access to clean water - generated from the planet's great rainforests - is critical for the health of humanity. Increasing global water scarcity, the ultimate problem which we are solving, impacts the poorest aspects of society.

\$10M

We will expand our law enforcement and protected area management infrastructure and capacities across the entire 17,358-km² Cardamom Rainforest Landscape thus scaling up our operations. This will provide the resources and management capacity to protect this vast intact forest landscape.

\$5M

We will promote the approach of Wildlife Alliance, the Cardamom Rainforest Landscape, and Cambodia as a model biosphere watershed for sustainable rainfall and water supply, underlying the value of Nature Based Climate Solutions.

\$1M

We will secure law enforcement and community engagement efforts within Southern Cardamom National Park.

“
Forests are critical for humanity. We know how to protect them yet it isn't being done with the urgency and focus required. This is the mission of Wildlife Alliance.
”

—Suwanna Gauntlett
Founder & CEO of Wildlife Alliance

Suwanna is one of Asia's leading female conservationists and the only female conservation leader in Cambodia. She is an inspiration to many young Cambodians, particularly women.



The Cardamom Rainforest

The Cardamoms form a Global 200 EcoRegion – one of the most significant places on the planet for wildlife and ecosystem services. Located in South-West Cambodia, the Cardamom Rainforest Landscape is a 5 million acre reef-to-ridge forest wilderness supporting more than 50 species of threatened animals and providing clean water for more than 3 million Cambodians.

Wildlife Alliance: who we are

Wildlife Alliance was founded to solve urgent wildlife and forest conservation crises. Our mission is to provide direct protection to threatened rainforests and to combat deforestation and poverty through practical hands-on field programs. We were invited to the Cardamom Rainforest by the Royal Government of Cambodia in 2004 to conduct emergency interventions during an elephant and tiger poaching crisis. We were subsequently asked to design and deliver a long term Protected Area Management Plan to protect the landscape, its forests, and wildlife. We have been embedded in the Landscape ever since.

Our unique approach

We implement a uniquely effective boots-on-the-ground law enforcement model focusing on professional, trained, supervised, and equipped law enforcement rangers. We are proud that we directly supervise and manage all law enforcement. We ensure our rangers are well paid, receive full health and life insurance, and have the equipment and capacity to work safely and effectively. We create a culture of excellence in conservation, high performance, and zero tolerance for corruption. Our direct management and supervision of rangers ensures they work effectively and means we exert good governance over all activities. We use intelligence, from confidential informants, to proactively prevent illegal activity, particularly deforestation and illegal logging, and actively work with courts and the judiciary to ensure legal penalties against forest and wildlife offenders.



Sustainable Development Goals



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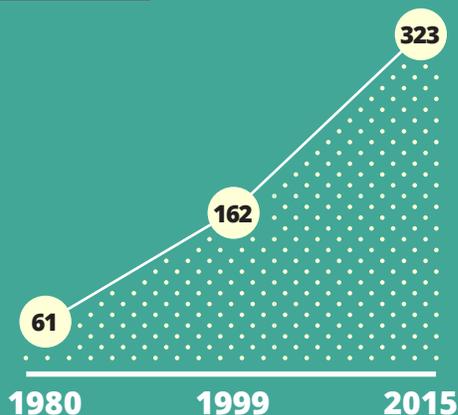
SAVING NATURE TO SAVE LIVES

Conserving nature to reduce disaster risks for vulnerable communities

2008 - 2017: Over 20 million people in Latin America were impacted by storms, drought, floods, and landslides.

In Latin America, climate-fueled disasters occur **five times more frequently than they did in 1980**. Many marginalized communities live in places where natural systems that once protected them are gone—wetlands altered by dams, mangroves cut down for development, forests logged for timber. A vicious cycle of inadequate planning, more frequent extreme weather, and rebuilding without a nature-based approach is contributing to **displacement of people and regional instability**.

Climate-fueled Disasters in Latin America Are Rising



Our Approach

Making people safer.

Reduce disaster risk by restoring nature, training local disaster managers in environmentally responsible disaster management, and advocating for improved disaster management policies and financing.



Work with community members, government staff, and humanitarian partners to identify needs and opportunities for building disaster resilience



Restore, manage, and protect nature (mangroves, forests, wetlands) for risk reduction; implement early warning systems and emergency management



Train hundreds in environmentally responsible shelter, water, and livelihood restoration practices



Help governments integrate nature into disaster management plans



Secure financing to replicate and scale

COMMITMENT LEVELS AND THEIR IMPACT

WITH
\$1M

**Benefiting
50,000+ people**

community risk mapping

province-level training
(100 people)

improved disaster
management plans

SINGLE SITE FOCUS

WITH
\$5M

**Benefiting
100,000+ people**

community risk mapping

nature restoration
(1-2 projects)

local- and national-level
training (250 people)

improved disaster
management plans

long-term financing plan

SINGLE SITE FOCUS

WITH
\$10M

**Benefiting
500,000+ people**

1-2 countries

community risk mapping

nature restoration
(4-5 projects)

local- and national-level
training (500 people)

improved disaster
management plans

long-term financing plan

DUAL SITE FOCUS

PROJECT LOCATIONS



Belize
Colombia
Guatemala
Haiti
Honduras

WHAT SETS US APART?

- We have a strong record of collaborating with communities, decision-makers, practitioners, and volunteers to green disaster management and improve resilience.
- We've worked 15 years at the intersection of natural resources, climate adaptation, disaster management, and development.
- We created the industry-standard guide, Green Recovery and Reconstruction Training Toolkit for Humanitarian Aid.
- We cover the full disaster management cycle, from risk reduction to reconstruction.

Measuring Success

Success = Latin American communities are more resilient to climate disasters.

We measure our success by the number of

- ↪ people with reduced disaster risk
- ↪ hectares of nature restored
- ↪ disaster management plans improved
- ↪ volunteers and emergency responders trained
- ↪ dollars secured to increase scale

Our solutions are designed to endure

- ↪ We build the long-term capacity of local institutions to apply green practices into the future.
- ↪ We restore wetlands, mangroves, and forests based on the latest climate science.
- ↪ We support disaster-response groups as they institutionalize environmentally responsible disaster management practices.



Visit www.Solutions.LeverforChange.org to explore more Bold Solutions. To learn more about Lever for Change or inquire about our services, please visit www.LeverforChange.org or contact us directly at info@leverforchange.org.