



Photo by Glenn Shepard Jr.



Impact Report 2022

Founder's Message



The core of Rainforest Flow's mission over the last 20 years has been to support indigenous rainforest peoples from their place of strength, in context with their social and environmental needs. Our culturally appropriate, eco-friendly, low-tech WASH (water, sanitation and hygiene) technologies have changed life for the better in indigenous Matsigenka, Huachiperi and Quechua communities in Manu Biosphere Reserve, a 1.8 million hectare UNESCO World Heritage site. As trusted, long-term partners, we empower indigenous peoples to take control over their own water and sanitation infrastructure. Working with experienced medical and anthropology teams, we have monitored the ongoing health and sanitary improvements our programming has brought. Our work has made indigenous peoples healthier and more effective stewards of a globally important biodiversity hotspot.

This year, we initiated a new phase of work among the Shawi indigenous people of the Huallaga River basin in northern Peru. There, we replicated and adapted our proven, field-tested WASH model in a distinctive cultural and ecological setting. In partnership with the native community of Louis Terry, and with the support of a generous donor, we completed installation and implementation of an integrated WASH infrastructure within 10 months, resulting in immediate and drastic 87% reduction in the incidence of gastrointestinal disease. This was a remarkable accomplishment for an underserved indigenous people and region, where previously 90% of municipal water projects had failed.

Throughout 2023 we also continued our ongoing work in four existing project communities in Manu Biosphere Reserve, where our work has provided lasting water and sanitation infrastructure and sustained health improvements for 1200 people. Though the population of these indigenous communities is small, they are direct stewards to over half a million hectares of biodiversity rich, well conserved rainforest territories. Looking to expand our impact throughout the Madre de Dios and lower Urubamba river valleys, we have the potential to improve health, well-being and community organization for over 12,000 indigenous people in 40 communities, who are stewards to over 10 million hectares of high biodiversity rainforest reserves.

To fulfill this vision, our goal is to leverage 20 years of success and scale up our proven technologies, implementing a regional model of socially and environmentally sustainable WASH systems in Manu Biosphere Reserve. In order to multiply our success, we are currently building on existing international and in-country partnerships and systematizing our WASH technologies in order to develop a curriculum for a **Global Learning and Research Center** based in Manu Biosphere Reserve. Our goal is to use the Center as a hub where indigenous communities throughout the Andes-Amazon region can come together with national and international scientists and policymakers to develop effective technical solutions to shared challenges.

All of us at Rainforest Flow extend our profound gratitude to all of those who have made our work possible through your generous donations. By helping us provide clean water, sanitation and vital training for underserved indigenous communities, your support has helped indigenous peoples of the Peruvian Amazon achieve measurably better health, while improving their capacity to defend and manage their resources and territories.

We hope you will continue to support our efforts as we aim to bring water and sanitation services to more indigenous communities as we scale up our impacts to help rainforest communities throughout the Amazon access critically needed clean water, sanitation, and hygiene services and improve their individual, family and community health.

With Gratitude,

Nancy Santullo

Founder and Executive Director
Rainforest Flow



Our Vision

Rainforest Flow supports the health and autonomy of indigenous communities, helping them preserve the rainforest for future generations. Our proven WASH (water-sanitation-hygiene) technologies could bring sustainable, life-giving services to tens of thousands of indigenous people in rainforest environments. Our **Global Learning and Research Center** will serve as a global hub promoting indigenous health and cultural integrity in the Amazon and beyond.

Our Mission

We empower indigenous people in the Peruvian Amazon to thrive through culturally and environmentally appropriate, sustainable WASH infrastructure and technical training programs. By improving the health of indigenous people and communities, we help them be better stewards of globally important rainforest ecosystems vital to us all.

Our Philosophy

We provide indigenous communities with technical solutions to chronic water and sanitation problems, bolstering their health and strengthening their community organization. We encourage indigenous communities to take on an active role in maintaining their own water and sanitation infrastructure, improving their health status, and defending their territories.

Our Commitment

In contrast to the “build and abandon” pattern of most water and sanitation projects in the Peruvian Amazon, Rainforest Flow follows up on its investment for a minimum of three to five years through ongoing technical training, health monitoring and social impact studies. This commitment ensures long-term success while documenting health advances and facilitating the full integration of WASH infrastructure and hygiene practices into everyday life.

Program Model

Water Program

- Install water treatment plant and distribution lines;
- Repair or upgrade existing water systems;
- Build sinks or tap stands and underground greywater drains at village homes;
- Establish and train a village Water and Sanitation Committee to repair, maintain and expand WASH installations;
- Ongoing project supervision, technical training and troubleshooting visits.

Sanitation Program

- Construct eco-friendly bathrooms at schools or homes that include toilets, sinks, and showers with eco-friendly biodigester waste management units;
- Community outreach meetings that promote project ownership and long-term sustainability;
- Project supervision, advanced technical training, and troubleshooting visits;

Health and Hygiene Program

- Baseline social and health documentation by our health and anthropology teams;
- Ongoing health monitoring and hygiene education to ensure lasting health improvements;
- Hygiene education classes and monitoring visits for school children, mothers, and families;
- Community-elected Health Promoter trained to make home wellness visits to reinforce hygiene training and monitor home installations;
- Partnerships with Peruvian Health and Education Ministries to participate in and take over health monitoring and training in the long term.

Project Ownership and Sustainability

- Ensure community buy-in by involving families in all project activities;
- Water and Sanitation Committee members earn income and gain marketable technical skills;
- Community outreach meetings that report on health advances, promote project ownership and involve regional and national stakeholders;



“My name is Washington, and I am the secretary of the water committee. I have been very happy to work with Rainforest Flow. I have learned many skills through this experience over the last ten months on the project. I learned how to lay water pipes, build water filters, disinfect water lines, and make repairs to the water system. The children, women, and neighbors in my community are already healthier because of this work. Thank you, Nancy! We now have healthy water to drink every day. Our children will have a better life than we had.”

--Washington Tangoa, 28-year-old father of three children and water committee member, Shawi Native Community of Louis Terry.

Accomplishments & Recognition

2000

- Rainforest Flow was founded by Nancy Santullo

2003

- Established Peru nonprofit for funds to enter legally into the country.
- WASH Program piloted in Huacaria Village, Manu Biosphere Reserve, Peru.
- Project Huacaria featured at June 2003 United Nations World Environment Day, at UN headquarters in NYC, and telecast throughout the world.
- Project Huacaria featured in “Every Body Counts - Every Drop Matters,” United Nations Classroom Resource Guide on Water.

2006

- Project Huacaria documented by PBS Television Thirteen/WNET NYC special, “Planet H2O,” hosted by America Ferrera.
- Constructed eco-friendly bathrooms at school in Huacaria.

2007

- Paintings by children created during hygiene program featuring “good health practices” displayed at United Nations Permanent Forum on Indigenous Issues, at the UN headquarters in NYC.

2009

- WASH program implemented in the village of Tayakome, in the Manu Biosphere Reserve

2010

- Constructed eco-friendly bathrooms with Imhoff waste management system and sink at school in Tayakome.

2012

- WASH program implemented in the village of Yomybato, Manu Biosphere Reserve.

2013

- Awarded the Austrian Energy Globe Award for Peru: Water category. This respected environmental award distinguishes projects that are sustainable, conserve resources, and generate awareness of solutions to environmental problems.

2014

- Launch of the Global WASH Teaching and Training Program.
- Constructed eco-friendly bathrooms and hygiene station sink at the school in Yomybato.

2015

- Ongoing health documentation and monitoring (parasite and anemia testing), and health education in Tayakome and Yomybato.

2016

- Conducted social impact evaluation of Rainforest Flow’s health intervention in Yomybato.
- Facilitated project outreach meetings to replicate the WASH model with Peruvian non-governmental organizations and Peruvian governmental ministries.
- Facilitated field study exchange program for university medical students in Huacaria.

2017

- Constructed a new Water Treatment Plant with portable NSF-61 geomembrane tanks in Huacaria.
- Modifications to the slow sand filter tanks after nine years of the system producing clean water with water committee’s members and villagers in Tayakome.

2018

- Rainforest Flow Global Teaching, Learning and Research Center hosted a teaching event to share WASH model and best practices with public health authorities and indigenous leaders in the Urubamba Kamisea River Region.
- Implemented rainwater harvesting system at water treatment plant, for additional water flow in dry season, in Yomybato.

2019

- Constructed first home rainwater harvesting system, with a 6,000-liter reservoir tank, in Huacaria.
- Built first in-home bathroom (toilet, sink, and shower) with eco-friendly bio-digester waste management unit, in Huacaria.
- Collection of Health Documentation and Social Impact data, over 16 years, in our three project villages.
- Evaluation visits to assess of WASH needs in four Native Villages in the Manu Biosphere Reserve.

2020

- Coronavirus intervention visits to three project villages: Huacaria, Tayakome, and Yomybato.
- Implement WASH Project in village of Shintuya in Manu Biosphere Reserve
- Built home bathrooms (toilet, shower, and sink) with biodigesters in Huacaria.

2021

- Water Project completed, remodeled 52 existing sinks, and built five new home sinks in Shintuya.
- Health monitoring and hygiene education in Shintuya.
- Constructed a new water-capturing system and installed larger capacity filter tanks in Huacaria.
- Completed Engineering Dossiers for new village prospects; Palotoa-Tiparo, Louis Terry, and Taiwan in the Loreto region of northern Peru.

2022

- Establish new WASH project in Louis Terry community, Loreto region, northern Peruvian Amazon.
- Health monitoring, hygiene education classes and home wellness visits in Shintuya, Huacaria, Tayakome, and Yomybato communities in Manu Biosphere Reserve.
- Ongoing program development for WASH infrastructure in Palotoa native community, Manu Biosphere Reserve.
- Topography study and engineering dossier for a new project village of Nuevo Porvenir in the Loreto region.
- Supervision and maintenance visits in Shintuya, Huacaria, Tayakome and Yomybato to ensure WASH infrastructure sustainability.



“Before, I had to carry the water from far away. I would carry it on my head, and then my neck would hurt from carrying so much water. Now, thanks to Rainforest Flow, I have water right here in my house. I can drink clean water, and bathe with clean water. I thank you very much for helping us with this project and giving us clean water.”

--Marina Tangoa Pizango, villager leader, mother of five, from the Shawi village of Louis Terry.

2022 Impact

- Completed implementation of new WASH project in Loreto Region of Peru: Native Community of Louis Terry.
- Completed implementation of WASH project in Manu Biosphere Reserve, Peru: Native Community of Shintuya.
- Project outreach in Native Community of Palotoa in Manu Biosphere Reserve, and Nuevo Porvenir Native Community in Loreto, Region.
- Developed memorandum of understanding with existing Manu Learning Center biological research station for implementation of Global Learning and Research Center.
- Health monitoring, hygiene education and technical training in all 5 project communities: Shintuya, Huacaria, Tayakome, Yomybato and Louis Terry.

Financial Investment in Seven Project Communities : \$757,941 which accomplished:

Shawi Native Community of Louis Terry (Population 120):

We replicated our successful WASH model in the Shawi Native Community of Louis Terry (24 families; population 120) in the northern Amazon region of Loreto.

- Collection and river transport of construction materials from the city of Yurimaguas.
- Built a water capturing system with 47 meters of underground filtration galleries.
- Built water capture system using a new spring 50 cm below the topographic level of the original water source.
- 3 km of water distribution lines laid throughout the community.
- Constructed water treatment plant with geomembrane tanks: (2) 3800-liter rock pre-filter tanks, (3) 3800-liter slow sand filter tanks, (1) 30,000-liter cistern, and (1) 20,000-liter elevated reservoir.
- Installed solar water pumping station to supply 20,000 liter elevated reservoir tank.
- Built sinks and underground greywater drains in all 24 homes and community center.
- Installed a rainwater harvesting system for one family home above topographic level of community reservoir; includes self-cleaning first wash diverter valve to reduce bacterial content.
- Built school bathroom with 4 toilet stalls with sinks, 2 showers on separate sides for boys and girls.
- Installed eco-friendly biodigester waste management system at school bathroom, with leach lines and concrete drying tank for processed waste, which can be used safely as fertilizer or buried.
- Constructed 2 exterior school sinks.
- Constructed tile washing station to clean feet at the school bathroom.
- Constructed concrete steps leading from the secondary school to school bathroom structure to combat muddy terrain.
- Provided hands-on vital technical training for the six-member Water and Sanitation Committee.
- Conducted social-sanitary baseline studies and monthly health monitoring.
- Led hygiene education classes for all villagers, mothers and school children that focus on improved hygiene practice, cleanliness in the home, and the ongoing maintenance of home sinks and school bathrooms.



Collection and transportation of construction materials to Louis Terry.



Water Capturing Point, Louis Terry



(L) Shawi Water Committees preparing and laying PVC tubes for the water lines. (R) Shawi mother and daughter digging the trench for the water conduction line.



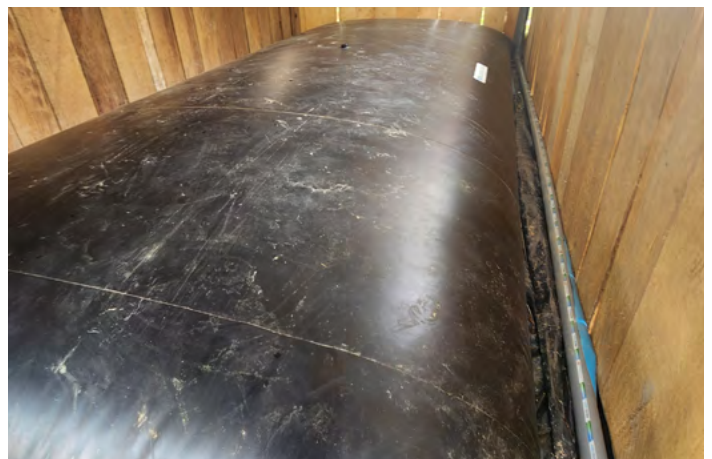
Water treatment plant and housing structure: (L) 2- 3800-liter pre-filter tanks, 3- 3800-liter slow sand filter tanks, and 30,000-liter cistern tank. (R) Solar panels to power the water pumping station.



Sinks and eco-friendly greywater drains built at 25 homes and the community center. The drain supports a healthy ecosystem and home environment.



(L) School bathrooms are hygienic and easy to clean and maintain. (R) Health educators teach the school children how to use and care for their new bathroom.



(L) Home rainwater harvesting system in the Louis Terry. The system has a (R) 12,000-liter reservoir and serves up to 12 people.



(L) Water committee learning to build slow sand filters that purify 99.99% of the pathogens from the water. (R) Health educators conducted three wellness classes for schoolchildren that focused on unseen bacteria and the importance of handwashing for improved health.



(L) Health meetings for mothers promoted daily hygiene through a play-acting exercise on solving daily health challenges, and (R) good nutrition class through using locally grown produce.



“I am the pastor of my community church and a water committee member. Years ago, a visiting Lutheran pastor, Thomas, asked our community what we needed. We all asked for clean water. Two years passed and there was no response from him, and I lost hope... I thought to myself, there will never be healthy water or good health for us.

Then pastor Tom returned with pastor Tim, Samuel, Nancy and Caleb and said they would bring us clean water. I began to see a different reality for our community. They came with their workers and we all worked hard on the project. Now we have clean water. God listened to our concerns. Now we have a new reality. We are drinking healthy water, and we have sanitation and health too. We are grateful and happy with Samuel and Nancy's work.”

-- Cecilio Lancha Tangoa, community member and pastor, Louis Terry native community.

Harakmbut Native Community of Shintuya, Matsigenka, Wachiperi, and Amarakaeri people, (Population 220):

- We completed the construction phase of our WASH Project in the Harakmbut Native Community of Shintuya (56 families; population 220), in the Manu Biosphere Reserve in SE Peru.
- Remodeled eight home sinks with ceramic tile and replaced plumbing accessories.



(L) Our team's renovation efforts replaced bacteria-filled porous concrete home sink-basins built by the government in 2014 with (R) hygienic ceramic white tile. A total of 56 sinks are now upgraded.



Sandra is a mom, has four children, and owns the General Store in Shintuya. She happily thanked Rainforest Flow's executive director, Nancy Santullo, for her new sink and the clean water that flows through it.

Maintenance, Capacity Building and Technical Training

- Two supervision, technical training, and infrastructure maintenance visits for project villages of Shintuya, Huacaria, and Yomybato.



Supervision and technical training for water committees in the villages of (L) Shintuya and (R) Yomybato.

Commitment to Long-Term Health Advances



Hygiene workshops for mothers of Yomybato, (L) and home wellness visits for the families in Tayakome.

In 2022 our Health Team provided ongoing monitoring and education:

- Three home wellness visits to 54 households in Shintuya; three hygiene education classes for community mothers.
- Two community monitoring and education visits to Huacaria, Tayakome and Yomybato, making a total of 180 home wellness visits; two hygiene classes per community.
- Bi-yearly distribution of health ministry-approved anti-parasite medicines to the people of Shintuya, Huacaria, Tayakome, and Yomybato.
- Health team gathered data from project communities on reductions in diarrhea incidence, anemia, waterborne parasites and skin conditions.
- Anthropology Director, Glenn Shepard Ph.D. made one field visit to the villages of Shintuya, Huacaria and Palotoa to supervise the health team, gathering and analyzing data on health and social impacts.

Project Outreach and Development: Palotoa, Porvenir Native Communities, Global Learning and Research Center

- Completed topographic and engineering dossier in Nuevo Porvenir Native Community in Loreto province, northern Peru.
- Visited Palotoa Native Community in Manu province to discuss the process of project implementation.
- Finalized partnership terms with Manu Learning Center (MLC), a tourism and research lodge in Manu Biosphere Reserve, to serve as initial host to Global Learning and Research Center workshops and activities.
- Continued outreach talks with Taiwan Native Community in Loreto province, a future project site.



Topography and engineering dossier was completed in partnership with the Shawi people of the village of Porvenir.



Rainforest Flow is the only organization that has brought projects with **real and lasting** benefits to the indigenous communities of Manu Park

-- Mauro Metaki, treasurer, Native Federation of Madre de Dios (FENAMAD), and community member in the village of Tayacome.

What's Next for Rainforest Flow in 2023:

Advancing Healthy Communities with Integral WASH Programs



Engineering team conducting topography study in Palotoa.

Water and Sanitation for the Native Community of Palotoa (Population 130):

The first phase of the Palotoa engineering study is complete. We have conducted all pre-implementation outreach, and plan to begin construction and health and hygiene programming in 2023-2024.

Year 1 work will include:

- Construct water capturing system including underground filter galleries;
- Gravity flow water system utilizing slow sand filtration to remove up to 99.99% of waterborne pathogens;
- Geomembrane filtration tanks and 4 km of water distribution lines;
- Tap stands with greywater drains at all 24 households;
- School bathrooms with 4 flush toilets, double-sided sinks, 2 showers, and outdoor utility sink with eco-friendly biodigester waste management system.
- Baseline health and social-sanitary studies and hygiene education;
- Technical training to a village-elected Water Committee.

Integrated WASH Project budget in Palotoa for 2023-2024: is \$65,000



Dr. Chad Jafvert and graduate student Ashley Sanchez, from Purdue University, collaborated with the Rainforest Flow team in Louis Terry and Huacaria.

WASH Global Learning and Research (GLR) Center, Manu Biosphere Reserve:

The Global Research and Learning Center will serve as a hands-on laboratory where indigenous communities, scientists and policy makers can learn about, replicate and scale up our proven and tested WASH technologies, refined over 20 years of field experience. Our goal is to develop a training framework that will train a new generation of WASH leaders to implement successful water, sanitation and hygiene programs in their own regions.

Phase I of the Global Research and Learning Center includes curriculum development, outreach workshop, and implementation of our business plan implementation. The GLR Center will provide Rainforest Flow with a sustainable revenue model through paid training, workshops and coursework (in-person and online) as well as project consulting services provided for government agencies, educational institutions, students, researchers and private enterprises such as ecotourism lodges.

We developed a partnership to host initial GLR workshops at Manu Learning Center (MLC) a well-established research, education, conservation and tourism center that has served the region for 18 years. Its strategic location, near three of our existing project sites, and experience with international student training groups will allow us to implement our training model and scale up our technologies at an existing facility without the need for heavy up-front construction costs.

Cost of Phase I Programming is \$60,000.



Our health team will continue to make bi-yearly health monitoring visits that include distributing anti-parasite medicines, education for families, health monitoring, and training for village health promoters.

Ongoing Health Monitoring and Hygiene Education Project Villages Collective Population 1,200:

Our health and anthropology team is led by Dr. Glenn Shepard, Jr., ethnobotanist and medical anthropologist and Dr. Miguel Cabada, infectious disease specialist at Cayetano Heredia University's tropical health laboratory in Peru. The health and anthropology teams work together to measure health outcomes while ensuring that our programming continues to meet the evolving cultural and environmental needs of each community.

Ongoing Health Monitoring and Hygiene Education Cost for 2023: \$65,000

Financial Statements

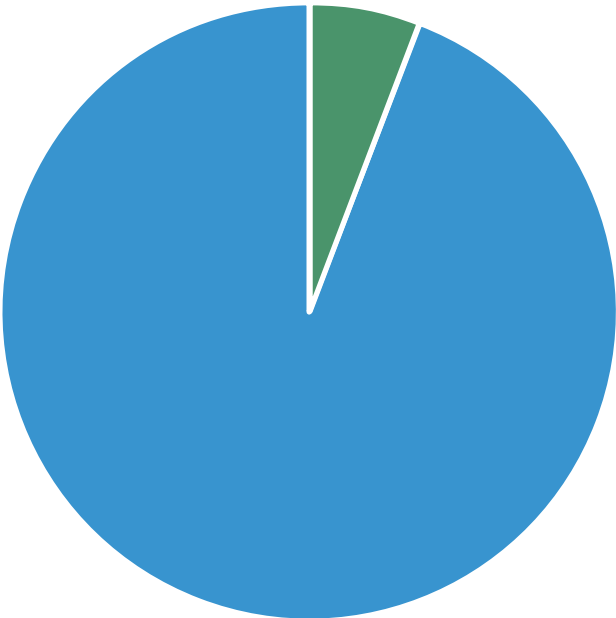
Rainforest Flow employs judicious financial oversight to maximize the impact of every single dollar earned and spent

2022

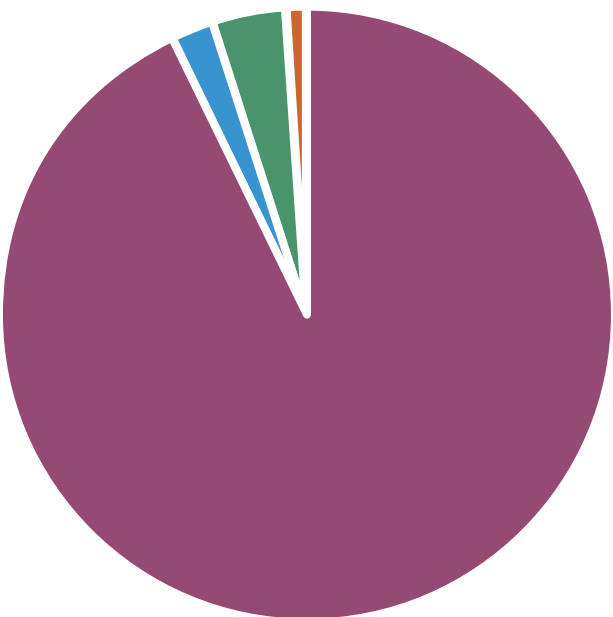
Revenue: \$1,001,603

Contributions
\$56,347
(6%)

Grants
\$945,852
94%



Expenses: \$758,538



WASH Program-Peru
\$707,040
93%

RF Capacity Building
\$15,980
2%

Administration
\$29,107
4%

Fundraising
\$6,411
1%

Board of Directors



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*Office Administrator
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Dr. Carolina Izquierdo
Medical Anthropologist



Dr. Douglas W. Yu
Ecologist



Dr. Glenn Shepard, Jr.
Medical Anthropologist

To learn more about our team and
how you can help them do their vital work, please view:
www.rainforestflow.org



Find out how you can make an impact that will benefit generations of indigenous people.
Contact Nancy Santullo, Rainforest Flow's Executive Director.

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