

# Rotary



# ESRAG

ENVIRONMENTAL  
SUSTAINABILITY  
ROTARY ACTION GROUP



**Volume 9 Issue 3  
September, 2024**

## How Rotary ethics shape pollution solutions

This month's issue shines with news of how people across the Rotary family are applying the ethics of the Four-Way Test to the crises of pollution and climate change. September's writers and speakers teach how to track the truth of how plastic moves through our world and bodies. They apply the tests of fairness and benefit to our decisions on banking, and share the pedagogy underlying a free curriculum that equips children to be good stewards of the earth.

Compassion and hope shine through these reports. But also, zest: we're celebrating ten years of ESRAG impact, and looking forward to gleeful reunions and making new friends at RICON 2025 in the beautiful Canadian Rockies.

Here are this month's stories:

- Look before you leap: Applying the Four-Way Test to plastic solutions
- As wildfires expand, build air filters for families at risk
- Tiny solar lights spotlight urgency of energy transition
- The Road to RICON 2025: call for volunteers!
- Indian Rotarians embrace Community Action for Fresh Water
- Raising children to love and protect nature
- ESRAG Director reports from her prestigious Mandela Fellowship
- How ESRAG applied the Four-Way Test to our banking - and you can, too!
- How your diet can reduce pollution
- Happy Birthday, ESRAG! Celebrating ten years transforming Rotary
- September Projects + Seminars focus on pollution



We can no longer afford to  
stick our head in the sand,  
just as we can no longer justify inaction.

@rotaryesragplasticsolutions

ESRAG's October theme is Food Systems, and November's is Climate. We welcome news of your project! You can either submit an article or send a request to be interviewed, by writing [newsletter@ESRAG.org](mailto:newsletter@ESRAG.org). The deadline to send us story leads is Sept. 12 for the Food System issue and Oct. 12 for the Climate Issue. *Graphic: one of several wonderful images available from the ESRAG Plastic Solutions Task Force*

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## Look before you leap: applying the 4-Way Test to plastic solutions

By Ariel Miller, ESRAG Newsletter Editor



Shining the Four Way Test as a surgical light, ESRAG's Plastics Solutions Task Force is illuminating ways for the family of Rotary to act most effectively to reduce the world's massive plastic crisis. Through monthly [Global Plastic Cafe](#) discussions on Zoom, [blog posts](#), and networking, they are pooling their knowledge to document the enormity and complexity of the problem. Rotarians must be equipped to help their communities overcome the dangerous gaps in public awareness. Equally crucial: Task Force members are striving to identify solutions that best meet the standards of being fair and beneficial to all.

"People have some awareness of the environmental impact of plastic litter because they can see it. But it's the medical aspects that are particularly deserving of a

bullhorn, especially on behalf of children," says Task Force Chair Tami Mulcahy. "What people can't see is the tiny microplastics, nano plastics and nano particulates that enter our bodies simply because we are surrounded by plastic. Researchers are finding these in women's breast milk, placentas and the sperm of men." She cites US National Institute of Health warnings that chemical additives used to make plastic can affect fetal development. And, the American Society of Endocrinology states that many chemicals used to make plastic are endocrine disruptors that affect our hormonal system.

The Task Force is catalyzing discussions among Rotarian engineers, doctors, ecologists, and teachers to map the life cycle of plastics across the world, including the many circular economy projects that are springing up, particularly in developing countries. For example, Mulcahy asks, "In the Nakivale Refugee Settlement in Uganda, there are women melting plastic in pots to make products. There is equipment that can make this toxic process safer. But what other safeguards need to be put in place? What about toxic dust from plastic chipping machines and melting down plastic to pave paths where barefoot children walk? We don't want to be kicking ourselves in ten years for producing something that makes a kid sick."

Mulcahy offers more examples of questions Task Force members ask to ensure "solutions" aren't creating serious new harms.

[Read More](#)

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## As wildfires expand, build air filters for families at risk

The terrifying expansion of wildfires and wildfire season is a fast-growing public health crisis. The Yale Center for Climate Change Communication (YPCCC) has published instructions on [how to build a Corsi-Rosenthal box](#): a simple home air purifier to protect people in wildfire zones. This could be a wonderful project for Rotary Clubs to implement for families that can't afford a commercial air filter.



"As climate change makes wildfires more extreme, people are increasingly living with smoke. The number of people residing in areas that experience at least one day of dangerous smoke pollution per year has increased 27-fold over the last decade, according to research led by Stanford scientists," writes YPCCC author Samantha Harrington. "A DIY air purifier called a Corsi-Rosenthal box can help clean the air in your home, making it safer for you and your family to breathe. The boxes cost under \$100 to build, less than half the price of commercial air filter units."

ESRAG has reported on this solution before, but this year's terrible wildfire season makes it the right time to provide all our readers with instructions. "The design was originally created by Richard Corsi, the dean of engineering at the University of California, Davis, and Jim Rosenthal, the CEO of filter manufacturer Tex-Air Filters, to [help reduce the spread of COVID-19](#)," writes Harrington.

To make one, all you need is four 20x20 inch MERV 12 filters, a 20" box fan, the cardboard box the fan came in, and a roll of duct tape. The only tool you need is a box cutter or a pair of scissors. "To save space and money, some people build a filter with a box fan and a single air filter," adds Rosenthal.

Tell the recipients to "combine your new Corsi-Rosenthal box with other safety precautions, such as keeping windows tightly sealed. If your home is drafty, [the Environmental Protection Agency](#) suggests designating one room to be the 'clean air room.' Keep your Corsi-Rosenthal box in that room and spend as much time as you can there."

*Photo credit: Samantha Harrington, Yale Program for Climate Change Communication*

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## Tiny solar lights spotlight urgency of energy transition

**By Ariel Miller**

*Buffalo, NY, September, 2024:* Founded by American Rotarian Sarah Baird, a small nonprofit is leveraging \$15 solar lights into a campaign to convince global stakeholders to finally prioritize investing in energy justice for rural Africa. "We're advocating through a wide range of partners including Rotary, [Catalyst2030](#) and the UN, on how access to clean, safe energy can be a multiplier of all their other programs," Baird says. Over 50% of the people of Sub-Saharan Africa still lack access to electricity, crippling health care, safety, education, and economic development.

"Without increased efforts, the continent's



population living in energy poverty or without access to reliable energy could grow to over 1.1 billion people by 2030," the target date for achieving the UN's 17 Sustainable Development Goals including energy access

for all as we strive to leave no one behind," she warns.

Baird's [Let There Be Light International](#) (LTBLI) works with [Solar Health Uganda](#) and other East African NGOs to solarize health centers and provide solar-powered lamps to households in off-grid communities. It's a pocket-sized strategy with big impact: in the ten years since its founding, LTBLI has benefitted over 1,250,000 people by providing solar electricity to 88 clinics and solar lights to 42,000 homes. In addition to helping to run a signature annual fundraising event, Baird's fellow Rotarians of the Buffalo Sunrise club in New York State "provide friendship, courage, and moral support," she says gratefully.

LTBLI provides solar lights to an array of people who need them, from students to people living with disabilities to home-bound elders. At the suggestion of district health officers in Uganda, LTBLI launched their signature maternal and infant health program, Safe Births + Healthy Homes, in 2019, combining the solar-electrification of frontline health clinics with community education and the incentive of a free solar light to pregnant women who deliver their babies at one of 9 participating maternity clinics. Core impacts include reduced unattended birth rates and improved maternal and infant health outcomes. Baseline surveys of participants show that 80% of the patients cited the incentive as important in their decision to give birth at the frontline clinics, rather than at home or with a traditional birth attendant.

*Credit for all photos: Let There Be Light International. Above: a mother and baby at home with their solar lamp in Uganda.*

[Read More](#)

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## **The Road to RICON 2025: call for volunteers!!**

***By Karen D. Kendrick-Hands,  
ESRAG RICON 2025 Coordinator***

*September, 2024:* The 2025 Rotary International Convention in Calgary is later than usual - June 18-25, 2025 - because our Canadian hosts are hopeful that their hockey team, the Flames, will need the convention venue for the

Stanley Cup playoffs. Plan to come early to enjoy all the excitement ESRAG has planned before and during Convention. There is a wealth of opportunity, so be sure you answer this call to action to help ESRAG have the best showing ever at convention! Food, Fellowship and Fun. Here are the key dates and ways you can help. [Sign up today!](#)



### **Oct. 14: deadline for proposals for RICON Breakout Sessions:**

Rotary's Convention break-out team has again shared a call for proposals. You must submit your [proposal online](#) by 23:59 Chicago time (UTC-5) on Monday, Oct. 14. Rotary can't accept proposals submitted by email or after the deadline. Write to [conventionbreakouts@rotary.org](mailto:conventionbreakouts@rotary.org) if you have questions.

Click "read more" to find out about the events taking place at RICON and how you can help. [Read More](#)

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## **Indian Rotarians embrace Community Action for Fresh Water**

*By Dr. Mina Venkataraman*

*ESRAG Lead for Community Action for Fresh Water*



Community Action for Freshwater (CAFW), Rotary's new partnership with the United Nations Environment Programme, was launched at the International Assembly in January 2024. The vital resource Rotary brings to this collaboration is our grassroots network of clubs on six continents. CAFW is a call to clubs and districts to take action for freshwater bodies in their region, and to map their service as part of an global quest to restore and protect the freshwater supplies on which our lives and economies depend. You can [register your project at this link](#).

I'll give an example of how the Rotary Club of Bhavani Koodal is working to protect the River Bhavani, but first, here's why it is urgent for Rotarians to mobilize our communities.

Freshwater is a diminishing resource. As climate change affects ocean currents and intensifies extreme weather events, rainfall has been erratic. The rapid melting of glaciers and heavy rainfall events are causing massive floods and erosion, devastating huge areas of farmland and infrastructure, and depriving our reservoirs and aquifers of the steady replenishment that slower glacial melting provided. The world was shocked to see this lethal dynamic - glacial melting plus record-shattering monsoons - in the Pakistan floods of 2022.

Saving our freshwater resources requires a concerted effort. ESRAG members are the advocates in promoting Community Action for Fresh Water in their districts and getting clubs to sign up for any activity that protects a freshwater body. Here are some examples:

- Advocacy for clean lakes or ponds
- Creating ponds
- Removing invasive species from dry riverbeds, streams, or ponds
- De-silting
- Building check dams or bund protection
- Creating bunds for streams
- Carrying out afforestation along water bodies
- Organizing plastic and waste removal drives, and
- Creating different types of barriers to stop plastics from entering the oceans.

Other activities include clearing up wetland ecosystems and springs, estuaries bearing mangroves, and the intertidal zones. Your club can contribute to increasing biodiversity around the freshwater bodies which host endemic species and are crucial breeding spots for fishes like salmon, trout, and migratory birds.

What does Community Action entail? What are we expecting our clubs and club members to do? If you look at the CAFW guidelines one of the important activities is community assessment. To illustrate how this works, I'm going to use the community assessment of Jambai, conducted by the Rotary Club of Bhavani Koodal, RID 3203 from February to June 2024 as an example.

*Shown above: community residents analyzing access to the River Bhavani as part of the community assessment organized by RC Bhavani Koodal. Photos by Rtn. Vetri, Rotary Club of Bhavani Koodal.*

[Read More](#)

## Raising children to love and protect nature

**AGE 4-5 YRS**  
**Landmark 8**

**Create at least one nature art project every week.**

**How?**

- Paint pieces of tree branches and use them as magic wands.
- Make a 'camera' with popcicle sticks glued into a square; use your camera to frame beautiful pictures.
- Read "The Very Busy Spider" and make your own web using sticks and yarn, with a spider made of modelling clay.
- Make a picture or a sculpture on the ground with materials from nature.
- Make butterflies on a clothes pin and perch them outdoors.
- Make fall bouquets using a half of a small squash as a vase.
- Use scraps of cloth to make winter pictures on the snow.
- In cold temperatures, arrange natural materials on a pie plate and add water to freeze overnight; when frozen, hang from the trees as winter ornaments.

**Why?**

The arts help children learn to express feelings about themselves and their world. Artistic exploration also helps to develop empathy. All children need frequent opportunities for creative expression, and the natural world can create many wonderful opportunities to explore colours, textures, shapes and patterns, and to see beauty and experience awe.

**66**

"We searched the schoolyard for pieces of nature that had already fallen to the ground. We then used these items to create nature art. Once everyone was finished we opened up our 'nature art gallery' and walked around to enjoy each other's creations."

*-Heather Snowball (teacher)*



**By Jacob Rodenburg,  
Executive Director, Camp Kawartha**

*Peterborough, Ontario: Simon Ogunda, a Kenyan youth worker, once posed a profound question: "Instead of asking what kind of world we are leaving for our children, we should ask what kind of kids we are leaving for our world."*

*This question challenges us to rethink our approach to raising the next generation. How do we nurture children who will care deeply for the Earth, value the natural world, and*

*take positive action to protect it? This responsibility shouldn't rest solely on the shoulders of environmental educators and outdoor specialists. If we are truly committed to fostering an ethic of stewardship, we must engage our entire community in this crucial work. This includes parents, grandparents, teachers, schools, organizations, Indigenous leaders, community groups, health professionals, municipal officials, and businesses.*

Recognizing the need for a community-driven approach to stewardship education, [Camp Kawartha](#) - a non-profit in Peterborough, Ontario which was founded by the Rotary Club of Peterborough - collaborated with over 50 local organizations and secured close to \$1 million in funding from

foundations and donors to develop an innovative model for fostering stewardship throughout each age and stage of child's development.

This initiative, called the [Pathway to Stewardship and Kinship](#), was crafted with input from experts across North America, ensuring that each action was tailored to the interests and developmental stages of children. We call these actions "Landmarks," symbolizing the milestones along a child's journey toward becoming a responsible steward of the environment.

We've published a comprehensive book, *On the Pathway*, which you can download for free from the [Pathway website](#) detailing the Pathway approach. The website is filled with resources. We have launched an app to help families, educators, and communities track their progress in achieving these landmarks. Each of the 30 landmarks is accompanied by a [professional video](#) explaining why and how the landmark can be used.

We recognize that children today feel anxious about an uncertain environmental future. Concerns like climate change, pollution, and habitat loss are contributing to what's been called "ecophobia" or "eco-anxiety." To address this, our focus isn't just on teaching children how to minimize harm: we actively show them what a positive, sustainable future can look like. The Pathway to Stewardship and Kinship Program empowers children of all ages to take meaningful, positive action for the environment at every age and stage of their development.

[Read More](#)

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## ESRAG Director reports from her prestigious Mandela Washington Fellowship

**By Cinderella Ndlovu, ESRAG Director**

*We're thrilled to report that newly-elected ESRAG Director Cinderella Ndlovu is one of only 42 young leaders from Zimbabwe chosen to be a 2024 Mandela Washington Fellow in the United States. An environmental engineer and member of the Rotaract Club of Matopos in District 9210, she is the founder and Executive Director of the [Green Hut Trust](#), a nonprofit dedicated to mobilizing youth to tackle climate change and promote environmental stewardship.*

*The Mandela Washington Fellowship is a U.S. Department of State program to nurture emerging young African leaders. This year, 700 fellows were chosen from over 40,000 applicants across sub-Saharan Africa. Of those 700, Cinderella Ndlovu is one of just 100 picked for the professional development track. She spent this internship working with the University of Minnesota Extension Regional Sustainable Development program, delving into clean energy, agri-food systems, and climate change – all integral components of sustainable development goals.*



The fellowship began with a six-week leadership curriculum, for which Ndlovu was assigned to Florida Gulf Coast University with 24 other fellows from 19 other countries. While in Florida, she expanded her Rotary network by connecting with Patrice (Pat) Courtney Strong, a Rotarian with the Rotary Club of Babcock Ranch, who is leading a Rotary solar project for Ukraine. Ndlovu also attended the D 6960 District Conference.

Click "read more" to read Engineer Ndlovu's report on the highlights of her American adventure, and visit our Vimeo channel to see her presentation to ESRAG's Weekly Project Seminars: [The Role of Youth in Advancing Climate Action](#).

[Read More](#)

## How ESRAG applied the 4-Way Test to our banking - and you can, too!

By Rob Sisson, Tynside Rotaract, and Larry Hands, ESRAG Founding Director and Past Treasurer



Banks lend out the money you deposit to other people (which you'll know if you've seen "*It's a Wonderful Life!*"). Some banks lend it to businesses which might not be so aligned with your values. Ashley Orgain, Chief Impact Officer for Seventh Generation, spotlights your opportunity: "I thought Seventh Generation was doing everything we possibly could to act on climate," she says. "I was wrong. I had overlooked one of our greatest climate powers—our finances."

Rotary's Four-Way Test is an excellent guide throughout this process, and it's exactly what ESRAG used to understand their options and move forward. Let's look at the different steps first. We'll go through a few case studies while we do, including the decision by ESRAG's Directors to open an account with Green Penny Bank, which underwrites loans for solar projects.

Here's an overview of how you can apply the Four-Way Test:

- Is it the TRUTH? Find out what your bank does with your money. Look at different sources (not just the bank's website) to correct for bias.
- Is it FAIR to all concerned? Talk to your bank first, before doing anything else. This article includes some sample questions. Be patient, but firm, in encouraging change. Consider future generations and the impact the bank's investment will have on them.
- Will it build GOODWILL and BETTER FRIENDSHIPS? Make sure to work with and support your bank.
- Will it be BENEFICIAL to all concerned? Will leaving the bank straight away actually be the best for the planet? Will it be beneficial for the bank? Will it be beneficial for you?

Read on to find out how ESRAG's Directors applied the 4-Way test to our bank, and several resources



you can use to shine a light on yours. [Read More](#)

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## How your diet can reduce pollution

**By Dawn Angela Byford, Co-Chair, ESRAG Plant-Rich Diet Task Force**

Ever wonder how far-reaching your environmental actions truly can be?

When I first joined Rotary, my focus was on the little things I could do in my own community to help those in need. The passion and effectiveness Rotarians have for helping others greatly inspired me to serve, and still does today. But I must admit, when it came to climate change, I felt what I could do as an individual was limited.

Since joining ESRAG's International Plant-Rich Diet Taskforce in 2021, my eyes have been opened to how much potential our seemingly small daily actions have for positive change, even on a global scale. "It surprises many people to learn that the food we eat, the farms that grow it, and the landscapes we've cleared all contribute to climate change. And contribute in a big way," [writes Jonathan Foley](#), PhD, Executive Director of Project Drawdown.

Rotary International is a strong supporter of the [United Nations Sustainable Development Goals](#). Recently, all of ESRAG's Task asked which of the 17 UN SDGs we align with, and how?

The results of our research were more far-reaching than I'd ever imagined. The simple choice to eat more whole plant foods and less animal products on a consistent basis supports all of the 17 UN SDG's, giving us a powerful tool to help humanity and our planet to thrive and survive! Below are the SDG's related to pollution and carbon emissions that correspond with the September, 2024 ESRAG theme. You can read how all the SDG's are supported by plant-rich eating [here](#).

*Photo by Kris Cameron: a plant-rich potluck hosted by the Wenatchee Confluence Rotary Club, Washington State, USA, summer, 2024.*

[Read More](#)

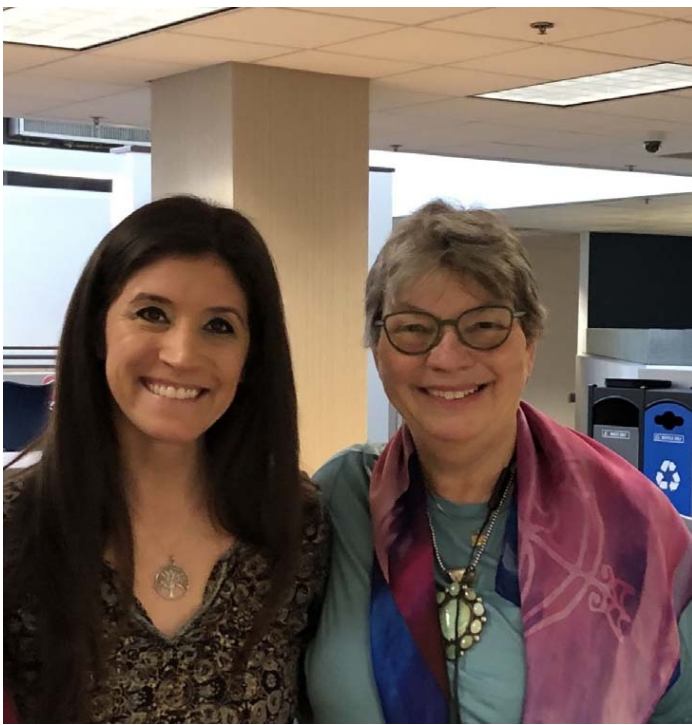
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## Happy Birthday, ESRAG! Celebrating ten years transforming Rotary

**By Ariel Miller**

In 2014, despite decades of increasingly urgent scientific warnings, Rotary International was silent on the existential threat of climate change to



humankind. But two American Rotarians from Madison, Wisconsin, Paul Riehemann and Karen Kendrick-Hands, were all-in on the quest to fill that void with action. Now you can read the story of their campaign in the new [ESRAG History](#) posted on our website in celebration of ESRAG's tenth birthday.

2014 laid the foundation for Rotary's decision to face and take action on environmental crises, and ten years of dramatic growth in our capacity to do so effectively. In 2014, Karen Kendrick-Hands went to the Rotary International Convention in Sydney to canvas worldwide Rotarians about the idea of founding a Rotary Action Group to protect the environment: ESRAG would hold its inaugural meeting at the RI Convention in Sao Paulo, Brazil in 2015. And by December of 2014, she and Riehemann had convinced their District to endorse a proposal to

Rotary's Council of Legislation:

**“Article 25: Global Warming Humanitarian Crisis:** RI supports the reduction of greenhouse gas emissions to mitigate the global warming humanitarian crisis.”

The proposal met stiff opposition.

*Photo: The Rotary Foundation's Lauren Marquez-Viso and ESRAG's co-founder Karen Kendrick-Hands worked tirelessly to convince Rotary leadership of the importance and value to Rotary of embracing environmental action. Here they are taking a victory lap in January 2024 in the dining room at Rotary Headquarters. RI's World Cafe has transformed its operations as part of Rotary's sustainability plan, thanks to the effort of Lauren and the Green Team at One Rotary Center in Evanston. Photo by Ariel Miller.*

[Read More](#)

## September Projects + Seminars focus on pollution

Throughout September, ESRAG is proud to welcome speakers describing powerful actions you can organize to document, analyze, and fight water pollution. All of these programs will be recorded and posted on ESRAG's Vimeo channel. If you register for any session, you can opt to receive weekly emails informing you of upcoming programs and giving you links to recordings of previous ones.

**Sept. 4: A geographic approach to stopping ocean plastic pollution, 2 pm UTC**

**Carl Nettleton and Linda Adams**

Most of the world's plastic is on beaches and



September, 2024 speakers, from top left, clockwise: Linda Adams, Carl Nettleton, Kaisu Annala, Rodrigo Butori, and Pablo Palacios.



other shorelines, including mangroves.

[OpenOceans](#) is identifying how plastic reaches beaches to stop it before it gets to the sea. Mangroves sequester 10 times more carbon than tropical forests, making mangrove restoration an opportunity for the carbon market. [Register here](#).

Carl Nettleton is the founder of OpenOceans Global, a nonprofit focused on addressing the ocean plastic pollution crisis in a new way. Linda Adams is the chair of the Climate Action Reserve a carbon credit registry for global carbon markets, an OpenOceans board member, and the former head of CalEPA.

### **Sept. 11: Water test bags for schools: what is that? 2 pm UTC**

#### ***Kaisu Annala***

Rotary clubs donate water test bags free for schools. The students, along with their teachers, collect the lake or sea water tests together. The students record the results in the open database Järvi Meri Wiki. Over 700 bags have already been donated in Finland. [Register here](#).

Kaisu Annala, President of the Rotary Club Munkkiniemi, in Helsinki, Finland, has a master's degree in engineering and has worked in all continents, directing several environmental impact assessments and environmental permit processes.

### **Sept. 18: Join us. Let's go plastic fishing! 2 pm UTC**

#### ***Rodrigo Butori***

Plastic Fisherman raises awareness about marine plastic pollution through creativity, art, optimism, and community power. Discover their impactful projects and learn how you can make a difference. Don't miss this chance to be part of the solution! [Register here](#).

As the founder of the global educational project [Plastic Fisherman](#), Rodrigo Butori is on a mission to raise awareness about marine plastic pollution through the transformative power of creativity, art, and community engagement.

### **Sept. 25: Worldwide Minga for Water, 2 pm UTC**

#### ***Pablo Palacios***

The Worldwide Minga for Water inspires and educates communities to take action to protect water and water sources. Learn about the experience of the first worldwide Minga in 2024, and plans for the next one. [Register here](#).

Pablo Palacios is the executive director of Arcandina Foundation in Quito, Ecuador. He was one of the key persons who organized and carried out the 1st Worldwide Minga for Water. Pablo has directed projects for education, culture and environmental conservation in the United States, Africa and Latin America.

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## **The Environmental Sustainability Rotary Action Group**

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