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December, 2023

Dear  
Friends:  
this is a  
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year  
nonprofit  
E-Tech  
letter (and  
request  
for



donations) to our mailing list than normal. Please forward it to interested friends. And feel free to just scan the details if you wish. And enjoy your holiday! Photo: 1 E-Tech International person and 5 E-Tech Peru in a bar in Iquitos, Peru.

We have for 20 years provided in-depth long term technical environmental support to communities in developing countries that ask for us to address environmental and environmental health impacts potential or actual of large-scale developmental projects. We end the year pondering a profound increase in the depth and experimentation in both short and long term strategies of our international environmental technical work. Financially sustaining it is very uncertain. “We” writ large also now includes Peruvian ngo E-Tech Peru which has only existed since 2022 and frequently operates from the same pot of money; they are E-Tech veterans and young Peruvian enviro and human rights

professionals willing to jump into the struggle. Begging your tolerance, I am going to get a bit into the weeds here and avoid oversimplifying because, as we now know politically, facts matter.

For many reasons our work in Peru may perhaps—in 2024—gain wider foundation support because it is a potentially replicable model for indigenous rehabilitation of tropical forests during climate change after extractive destruction. Not true in Ecuador. The country remains an uneasy stepchild for funders. We have accomplished a lot in 2023. And now we lack funds to continue addressing the Cordillera del Condor potentially deadly scenario below.

The Chinese Ecuacorriente Mirador open pit copper mine in Ecuador is located in a spectacular biodiverse Cordillera del Condor rainforest that has been inhabited by, and upstream of, indigenous Shuar people and other indigenous residents for thousands of years. Many Shuar literally live in and off of the rivers below the mine that feed the Rio Santiago flowing south to Peru and into the Amazonian mainstream Marañón River. Mirador is supersaturated from rainfall that could increase in intensity with climate change and is located in a highly vulnerable seismic zone where earthquakes up to 7.0 have shaken the area in historical times. Over the past dark 2 years (continuing a 12 year history that we have been actively trying to influence Mirador), with little documentation of environmental permits released publicly, the mine has entered an expansion of nearly 5 times to process 140,000 metric tons per day which will put it among the 6 or 7 largest in the world. Simultaneously they have begun depositing waste in the Tundayme tailings dam that is on course to be by 20% the highest in the world, 1050 feet high—filling up a canyon to the top of a ridge. Mirador has also a smaller Quimi tailings dam located on the Rio Quimi with no documentation of type of construction.

In 2023, E-Tech International and Riada Engineering completed a computer model of 2 Mirador tailings dams failures, the larger Tundayme dam had been announced as a planned 860 feet high. The results showed imminent endangerment to human life should the dam be 77% full; 100 plus feet of tailings deposits could flood into the nearby town of Tundayme and pollution would travel far into the Rio Santiago into Peru. The loss of life could be greater than the failure of the Brumadinho tailings dam in Brasil. E-Tech and our consultants are currently revising the tailings failure to reflect the Ecuacorriente announced 1050 foot dam and it will add greatly to risk.

These tailings will last for centuries. Tailings dam failure occurs from mismanagement, earthquakes, floods, poor construction or any combination of the above; maybe next Tuesday or in 2123 in a flooded climate changed world desperately mining minerals for renewable energy. People may well die if steps are not taken by the mine and government with first a (nonexistent) emergency response plan.

E-Tech, Riada, academic research institutions, Shuar federations, environmental justice groups and others presented the results to the public, the press and over two days in late October in Shuar territory to indigenous federations, confederations, and regional government to begin gathering the elements needed for the government and the mine to put in place an emergency response plan. This demand by Shuar federations and national indigenous federations is a first critical step as are immediate transparent and independent multisectoral audits to determine how to manage the mine. E-Tech, and other investigators trained by E-Tech in tailings modeling within research and NGO support teams within Ecuador, need funding immediately. We are now in the middle of this work---technical research, a voice on behalf of Shuar with the national government, and legal action including an imminent endangerment case before the Interamerican Human Rights Commission (IAHRC) and multiple requests to the Ecuador Constitutional Court after denial of documents by the previous government ministries. A new President is now taking office and it is urgent that his government step in. The company is responding to our October-November intervention with massive PR campaigns that do not

respond to the fundamental issue: IF the tailings fail they have neither an emergency response nor a closure plan in place to address the tailings failure issue.



Mirador Tundayme tailings dam is planned to be tallest in the world 1050 feet high with no emergency response plan



The Riada engineering tailings dam failure model shows some areas with high danger for loss of life within the surrounding 10-15 miles of the Tundayme dam with over 100 feet high of tailings covering people, structures, trees and the rivers.



Villages below the Mirador mine within 15 miles could see up to 100 feet of mine tailings should the mine's Tundayme dam collapse. Shuar child living in the river below the Mirador mine, Photo Beth Wald

Our largest project is in Amazonian Loreto, Peru where we work at the convergence of vision, governmental legal obligations to clean up over 3000 oil contaminated sites and rehabilitate indigenous territory, trust of indigenous communities in us, and the constant battle against extractive reality in 4 Amazon basins: the Pastaza, Corrientes, Marañon and Tigre. We assist in trying to convert potentially thousands of tropical forest oil polluted and then remediated (cleaned up) sites to be rehabilitated (restored by indigenous community perspective) under a 2016 national Acta/law between 4 indigenous federations and the Peruvian government. This is a joint E-Tech International/E-Tech Peru project. We began training indigenous federation environmental monitors in 2014 while assisting in negotiating the 2016 accords; indigenous trust in E-Tech is very solid. Our first baptism in the region was in 2005-6 when Chief Engineer Bill Powers assisted the Achuar in the Rio Corrientes to halt discharges of polluting produced water to the river. From 2014-2016 we technically supported negotiations and implementation of the 2016 rehabilitation Acta while initiating training of around 150 environmental monitors in 4 watersheds. Over 100 monitors are now transitioning to not only conduct monitoring of spills and sites but now on actual cleanup and subsequent complex tracking of the site from "clean" –if it really is--to usable for purposes that the federations want. Some are being trained by E-Tech through Peruvian government funds and limited foundation support to gain skills to remediate their own territory and we seek donations and grants to greatly expand this process in parallel with the government training. Others see their environmental monitoring as territorial self-defense rather than a source of employment, which they still need. These people--Achuar, Quechua, Kichwa, Kukama, Kandoshi and Urainá--look toward a post-oil self-sufficient and hopefully profitable,

in the sense of using both clean land and water during an epoch of climate change to sustain themselves with a regenerative economy, and also in the sense of making at least some money without a need for extractive industry.

Photo below:(Dick Kamp) E-Tech trained FEDIQUEP environmental monitors use a drone during a November workshop to evaluate oil pollution dumped into a cocha or isolated waterway of the Pastaza River.



To be clear friends: aside from a lot of money and many decades, this is a vision that requires constant indigenous federation pressure and demands to the Peruvian and regional governments to provide support and resources to make a reality of clean fishing waters, orchards, tree-planting, farming,

hunting, centers for education and healing, selling of arts. However there is nothing abstract about our strategy that directly reflects the indigenous federation demands and visions for a regenerative economy that is based on their (non-toxic) land and water. We will oversee the site by site cleanup while training the federations to take on that job. As sites are remediated we will work with communities to find resources whether from governments, grants, or other entities to help restore the sites and the old oil facilities to forests and productive land and water.

The oil industry is not yet gone, even if their current presence is less (if you ignore regular pipeline spills and the legacy of pollution they left behind). Peru is not committed to ending oil exploitation even if the quality of the oil is not great in Loreto and the infrastructure corroded. Still: our workshop in November in the Pastaza river showed us that the 50 environmental monitors who traveled sometimes over a hundred miles to attend with no stipends were really dedicated to figuring out how to monitor cleanup and how to determine that cleanup would leave a site and areas to where pollution might migrate clean enough to create and recreate a home in the sense of a welcoming forest.

Amidst struggle, bright lights shine on a road to the future. A dynamic if poorly paid young crew including environmental engineer, a biologist, a human rights attorney, a great manager/accountant (Paxy Tananta) is working in Peru. An Ecuadoran environmental technical network is beginning to work together on Mirador and other mining issues. Along the Rio Sonora, in Mexico we are principally advisors to a brilliant and dynamic group of professionals working out of Hermosillo, the river itself, and Instituto Tecnológico de Sonora in Ciudad Obregon. In Uganda and the Congo, Bill Powers and I work as mentors and volunteers to human rights and indigenous environmental leader Robert Agenonga, along with the NGO Land is Life. Unfortunately Robert is battling cross-border government impunity and tribal vengeance murders of rural farmers that leave us worried for his welfare.

In these troubled times we feel that we are making a substantial and measurable difference and 2023 was a hard working year. If you are able to help, great and if not, well great. Website or mail addresses above.....And have a mellow holiday season.

Director Richard (Dick) Kamp on behalf of all of E-Tech International and our partners E-Tech Peru.

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