

# CONVERSATIONS WITH THE EARTH



INDIGENOUS VOICES  
ON CLIMATE CHANGE

## Fire on the Páramo

When it was over, a pine plantation to offset emissions by a Dutch utility produced only smoke

In the early 1990s, FACE, a Netherlands-based foundation created by a consortium of Dutch electricity companies, began establishing tree plantations around the world to offset their member utilities' burning of fossil fuels. One project involved a Kichwa community in Ecuador. Despite initial enthusiasm, the plantation imported dangerous exotic alien species of trees, failed to produce wood and income for the communities, and degraded the unique "páramo" ecosystem. Eventually, these factors contributed to a tragic fire, which more probably caused a net loss in atmospheric carbon absorption, even as the utilities chugged on. The United Nations has approved forest plantations for climate-change mitigation, and may expand that approval. But the residents of Mojandita are still smoldering.



Photographer: Nicolas Villaume  
Captions: Thea Riofrancos  
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In 1993, Profafor—an Ecuadorian contractor for the carbon-offset foundation FACE—arrived in the northern Sierra to negotiate a contract with Mojandita, an indigenous Kichwa community, for a 350-acre pine plantation. Under the contract, both parties were supposed to cash in on the world's new carbon economy. Profafor would provide training, obtain certification for the plantation, and pay a lease on the land, while the community would be responsible for maintaining the plantation. Lima Isama Pedro, a local campesino, went so far as to give up his own farming to try his hand at tolling among the pines.



Lima Isama Pedro | Mojandita, Ecuador

On its face, Profafor's plan seemed a win-win, mitigating climate change and local poverty at once. "At first," said Kichwa campesino leader Josefina Lema, shown here with her brother, "everything sounded so beautiful." But that was before the devil emerged in the details. According to community members and a report by Quito-based environmental NGO Acción Ecológica, the company provided inadequate training for the grueling high-elevation plantation work, required the community to pay for expensive items like seeds and technical assistance, and paid only half the agreed-upon final payment. The company denied wrongdoing, attributing problems to misunderstandings and confusion with traditional governance.



Josefina Lema and her Brother | Mojandita, Ecuador



Josefina Lema | Upper Mojandita, Páramo , Pine field, Ecuador

In the end, Mojandita residents like Josefina Lema complained that the community never saw the promised socioeconomic benefits of climate-change mitigation—primarily earnings from lumber byproducts. Pine trees often do poorly outside their native habitat. After ten years, the pine trees planted in Ecuador still had not reached maturity, leaving no wood to thin and sell. Residents also saw environmental problems. Pine rows had an

unintended effect on the local páramo, a highland wetland unique to the Northern Andes, which provides the country's capital city Quito with half of its water supply. Much of the local vegetation died off at the perimeters of the new plantation. The pines shaded out native paja grasslands and absorbed excess water, constricting the local water supply—and inviting a more acute disaster.



Josefina Lema | Mojandita, Ecuador

The Kichwa residents of Mojandita define their reciprocal relationship to the mother earth, Pachamama, through ritual acts of reverence. In her spiritual practices, Josefina Lema combines indigenous knowledge with a keen awareness of the local impact of environmental degradation.



Mojandita, Ecuador

The summer of 2003 was a dry one. Late one night, an elderly man from Mojandita, remembered only by an old photograph, set out for the top of the páramo to perform a Kichwa rain ritual, ignoring his neighbors' objections. Extreme fires are rare in Mojandita, as locals are quick to point out. Native species such as the paja grasses have co-evolved with regular burning, and the moist páramo serves to moderate the flames. But that was before



Josefina Lema | Upper Mojandita, Páramo , Ecuador

If plantation trees have an advantage in climate mitigation, it is that they trap carbon in ways that scientists can measure easily. "Pines are special trees that clean the air," the carbon-offset company Profafor reportedly told community members in introducing a plan to reduce global warming by absorbing carbon. But to plant trees, workers have to remove vegetation and expose soil, releasing significant quantities of carbon. At Mojandita the results still might have been positive, except for a few troubling factors: alien, exotic species of pines, stunted growth, drought—a recipe for trees of death.

the plantation pines sucked up water and covered the ground in pine needles, stunting native plants and stacking up kindling. The old man returned the next morning, but he had left the candles behind, still burning. By the time the flames subsided, they had scorched over half the pine plantation as well as surrounding vegetation, creating the worse conflagration in local residents' memory.



Upper Mojandita, Páramo , Pine field, Ecuador

In the aftermath of the fire, Profafor immediately threatened legal action and demanded that Mojandita pay for the burnt plantation. Six years later, the exotic pines are betrayed by a grayish black color, denuded branches, and a legacy of misunderstanding.



Upper Mojandita, Páramo , Pine field, Ecuador

In Mojandita, the pine stubs have begun blending into the landscape, the resilient native vegetation is starting to grow back, and the community has renewed its traditional relations with the páramo. But other plantations are sprouting up worldwide, having gained international approval as climate-mitigation projects. And that approval may expand at future UN Climate Conferences and/or other international negotiations. One proposal is to sanction the use of plantations on degraded forests: instead of restoring the forests or letting them grow back, a carbon trader could arrange to create monoculture (single species) tree rows and plantations for offset credit—though it would be a tough sell in Mojandita.



Lima Isama Pedro | Mojandita, Ecuador

Fifteen years after the idea first emerged, Mojandita is still digging through the ashes of its failed experiment with the carbon market. In the economics of such a market, carbon emitters like utilities find it cheaper to sponsor projects like Mojandita than to reduce emissions. But Lima Isama Pedro, who sacrificed the certainty of his own farm for the uncertainty of lumber production, did not find it cheaper. And Pedro's private losses were

compounded by public damage to Mojandita's ecosystems, water, and goodwill. Armed with resentment and a history in the indigenous and environmental movements, the community did not take kindly to Profafor's lawsuit over the fire. Its leaders quickly threatened to mobilize against the company, and, as of December 2009, Profafor had backed down from its attempt to collect damages.