CRUSHING COLONIALISM

THE MAGAZINE

March 2026 | Edition 10



PROGRESS OR DIGITAL COLONIZATION?

AI's environmental impact on Native lands and communities.

SOW. HOE. GROW

How a small food garden speaks of climate awareness and sustainability.

INDIGENOUS ECOLOGIES AGAINST EXTRACTIVE FUTURES

Building systems of care rooted in land and collective responsibility.

LETTER FROM THE EDITOR

Environmentalism is often presented as universal—a shared global concern, a collective responsibility, a neutral moral good. But for many Indigenous communities, the environment is not a concept. It is home. It is law. It is memory. It is the future.

In this issue of *The Magazine*, we explore environment and conservation not as abstract policy debates, but as lived realities. Across continents, Indigenous peoples continue to defend their lands, waters, and ecosystems against extractive economies and conservation models that too often exclude them. What is framed as "protection" can sometimes mirror the same colonial logic that displaced communities in the first place.

We ask: Who defines conservation? Who benefits from climate solutions? And who bears the cost?

The stories in this issue examine the tensions between dominant environmental agendas and Indigenous visions of land stewardship. They highlight how climate summits, carbon markets, and development projects intersect with territorial rights and self-determination. They also uplift community-led models of care for the Earth — models rooted not in ownership, but in relationship; not in profit, but in reciprocity.

At its core, this issue reminds us that environmental justice cannot exist without Indigenous sovereignty. Protecting ecosystems requires listening to those who have safeguarded them for generations.

This edition of *The Magazine* was made possible through a generous grant received from the Earth Rising Foundation through its Indigenous Voices Grant Program. We are grateful for their support in amplifying Indigenous perspectives and storytelling.

Thank you for reading, reflecting, and continuing this conversation with us.

In solidarity,

Isabel Riofrío
Editor-in-Chief





Protesters gather outside the Michigan State Capitol during the "No Data Centers, No Secret Deals" demonstration, holding signs that read "Big Tech Back Off." Participants called for public investment in essential services and greater transparency in development decisions. Photo credit: Valerie Jean, December 16, 2025.

Editorial Staff
Jen Deerinwater, *Executive Director*
Isabel María Riofrío, *Editor-in-Chief*
Shana Baumgartner, *Editorial Director*

Design & Layout
Beatriz Saraiva

Contact
600 Pennsylvania Ave SE, #15581
Washington, DC, USA 20003
+1 202-996-7848
Info@CrushingColonialism.org
www.CrushingColonialism.org
Facebook: @ircc.resist
YouTube: @CrushingColonialism
Instagram: @CrushingColonialism
TikTok: @CrushingColonialism
Linkedin: @CrushingColonialism

Cover photo credit: Eri'ife Micheal, January 20, 2026.

**Throughout The Magazine, we default to using Indigenous place names unless otherwise stated. Colonial names are indicated in quotation marks for context.*

This edition of *The Magazine* was funded thanks to a generous grant received from Earth Rising Foundation through their Indigenous Voices Grant Program.

CONTENTS

DISPATCHES FROM OUR RELATIVES

2 The Impact of Oil Pollution on Ilaje Indigenous Communities

5 Green Transition, Red Realities: How Communities in the Congo Basin Are Resisting the Green Rush

9 The Legacy of France's Nuclear Tests in Algeria

11 Progress or Digital Colonization? AI Data Centers Spark Debate on Native Lands

15 In the Amazon, Indigenous Communities Are Recording the Forests to Prove It Is Alive

DECOLONIZED BEATZ

17 Reclaiming the Grove

20 A Forest of Gods

21 Soe.Hoe.Grow.

GLOBAL INDIGENOUS NEWS

28 Indigenous Demands Took Center Stage at COP30, but Decisions Were Made Behind Closed Doors

31 When Salmon Save

32 When the Land Remembers: Indigenous Ecologies Against Extractive Futures

THE IMPACT OF OIL POLLUTION ON ILAJE INDIGENOUS COMMUNITIES

BY ADETOKUNBO ABIOLA



A polluted shoreline at Mahin, near Ayetoro in Ilaje Local Government Area, Ondo State, Nigeria, where oil-contaminated debris has killed crabs and other aquatic species that local fishermen rely on to supplement their livelihoods. Photo credit: Femi Olorunlola, February 13, 2026.

"When I say I didn't catch fish," said Fehintola Alebiosu, a 37-year-old fisherman from Ayetoro in the Ilaje community of Ondo State, in southwestern Nigeria, "the response is always the same: 'didn't catch fish? Beside the Atlantic Ocean? You must be joking.' Then they look at me with doubt, believing I'm lying."

His words reflected the lived reality of fishermen in this part of the world: the bewilderment of outsiders at dwindling fish stocks, the astonishment at the poverty faced by Ilaje fishermen, and the shock at the conditions in which they live.

To the outsider, Ilaje—made up of over 400 communities stretched across 84 kilometers of Nigeria's coastline—should abound with fish species such as mackerel, croaker, eels, and blue fish.

In 2020, fishermen on the Atlantic Ocean caught an estimated 21 million tonnes of fish. In sharp contrast, fishing communities in Ilaje have experienced steep declines in their catches, with a 5.94 percent drop in species of fish, crustaceans, and plants. This disparity raises a critical question: what has driven such losses?

For communities in Ilaje, fish decline is the consequence of oil production in the area, and Alebiosu's experience reflects the consequences of these oil exploration activities. Ilaje communities are made up of four core traditional entities—Ode Ugbo, Ode Mahin, Ode Etikan, and Aheri—whose people have long relied on farming and fishing and are known for their seafood. Oil companies such as Chevron, Shell, and others sidelined local fishermen when oil spills occurred.

Although Ilaje communities have contributed an estimated 60,000 barrels of oil per day to Nigeria's national output since oil production began in the mid-20th century, they remain on the receiving end of its costs. This outcome is not accidental but the result of a cycle in which oil wealth failed to reach local communities—a pattern shaped by colonial arrangements and sustained by post-colonial policies.

DISPATCHES FROM OUR RELATIVES

Oil exploration, which has contributed to rising sea levels in Ilaje communities, has led to 70 percent territorial loss and polluted the coastal water, forcing fish to move in search of safer habitats, according to Sola Ebiseni, a prominent Ilaje politician. Oil spills and gas flaring linked to decades of extraction have severely disrupted marine ecosystems, leaving fishermen to struggle for survival in waters where fish were once abundant but are now increasingly scarce.

Alebiosu's experiences mirror those of countless others. Oladele Kehinde, for example, saw his catch fall by 70% between 2015 and 2025. This crisis extends beyond fish scarcity alone. Oil exploitation has led to the destruction of farmlands, environmental damage, erosion, and contaminated water. The consequences permeated everywhere in Ilaje land: from key settlements such as Mahin, Igbokoda, and Ayetoro, to other coastal communities.

Owepebijo Omonuwa, a 58-year-old fisherman from Ayetoro, described a similar decline. "My fish catch fell by 50 percent in the last ten years," he said. He worries about the future collapse of fishing due to environmental degradation, climate change, and economic pressures.

Environmentalist Eugene Nweke argues that poor governance, lack of transparency, and weak post-colonial institutional arrangements are also central to the crisis. Oil exploration did not lead to improvements in living conditions: instead, discriminatory colonial policies pushed Ilaje fishermen into poverty and debt, fuelling inequality. As fish stocks dwindled, fishermen migrated, contributing to therural-urban drift. This, in turn, led to dangerous journeys, disruption of family structures, and increased competition for scarce resources.

Still, Ilaje fishermen pushed for change. The Fishermen Association of Nigeria (Ilaje Chapter) called on the government to take urgent action to combat the environmental damage in the area and hold oil companies accountable. Activists warned that without swift intervention, the fishing business would not only collapse, but the entire coastal communities could be wiped out.

COLONIAL ROOTS OF THE CRISIS

The roots of Ilaje's fishing crisis trace back to British colonial rule, which prioritized resource extraction over local welfare. By granting exclusive rights to foreign oil companies such as Shell and treating oil exploration as a national revenue imperative, colonial authorities largely ignored pollution and its effects on local communities. This approach entrenched corporate operations while leaving the consequences for Ilaje's fishermen unaddressed.

Paul Ugor of McMaster University has argued that oil exploration shifted from colonial exploitation to a neo-colonial structure where multinational oil companies colluded with unscrupulous Nigerians to amass wealth. The result was environmental degradation and the marginalization of farmers and fishermen, leading to want, poverty, and despair. In the process, the voices of people like Alebiosu were ignored.

Another enduring legacy of colonialism can be seen in the structure of the oil sector itself. Companies were granted vast exploration rights, laying the groundwork for unequal control over resources and leaving local populations with little say. In many instances, the federal government protected the rights of oil companies, sometimes through the use of force against the Ilaje community. Human Rights Watch has documented instances where abusive local security forces used violence to secure oil flows in the face of community opposition.

TWO PATHS FROM COLONIAL RULE: ALGERIA AND NIGERIA

Unlike Nigeria, Algeria fully nationalized its oil and gas sector in 1971, taking control of resources previously managed under French colonial rule. The new model ensured that oil fields were situated in the Saharan Desert, minimizing direct daily impact on large residential populations.

Nigeria, in contrast, retained the colonial frameworks that allowed the oil fields to be situated within communities like Ilaje. Federal ownership of resources, reinforced through doctrines like the Doctrine of Discovery, prioritized federal resource ownership over local rights. Limited reinvestment in communities such as Ayetoro, Yoren, and Mahin created an enclave industry detached from local development.

The results were far-reaching: destruction of aquatic ecosystems, loss of fishing gear, and reduced fish stocks. As Gboyega Oyetola, Nigeria's Minister of Marine and Blue Economy, said recently, this trend is "unsustainable—economically, nutritionally, and environmentally."

ILAJE HISTORY

To understand how oil production impacted real communities, it is necessary to examine Ilaje's history. Ilaje fishermen descended from migrants of Ile-Ife around the 10th century and became seafarers along the Atlantic coast, thriving in the harsh riverine and coastal environment. For the Ilaje, fishing was not just a job; it was a way of life.

Yet in 1998, a major oil spill marked a turning point, devastating the coastal ecosystems, killing large numbers of fish, and contaminating water sources. For Ilaje fishermen, it ended any lingering sense that their livelihoods would be protected. The government and the oil companies failed to carry out adequate cleanup, pushing communities deeper into poverty and making the daily consumption of polluted water an unfortunate reality. Repeated oil spills over the years reinforced this decline.

Born and raised in Ayetoro, Oluwole Omope revealed the depth of anger against oil exploration to HumAngle in 2023. "We're angry because this is an oil community, yet we suffer. We've seen cases of people dying from oil exploration, including my sister. Today, I feel pain, because she left a lot of children that are supposed to be catered for." Like many Ilaje Indigenes, Omope saw firsthand how oil exploration affected fishing.

Omope reflected on the 1998 oil spill as a moment that ushered in widespread poverty. Growing up, oil spills were synonymous with pain and loss. In the absence of meaningful state intervention, he said, the harms of oil exploration continued unchecked, leaving communities with little recourse. Nigerian scholars Ike Okonta and Oronto Douglas described oil extraction as a "vicious ecological war," one in which local populations became victims in the very region they had inhabited for centuries.

Against this broader backdrop, Ilaje fishermen were forced to adapt to survive. Many developed both behavioral and ecological adaptations, diversifying their livelihoods and altering their fishing techniques. Others looked toward technological fixes to cope with the impacts of oil exploration and environmental change.

Chief Sola Ebiseni warned that without government-led technological solutions to address ocean surges, communities risk being overwhelmed. "Otherwise, we are on the verge of being wiped out by the Atlantic," he told Daily Trust Newspaper.

Still, Ilaje fishing traditions endure. Fathers and mothers teach fishing skills to their children, who skip classes to toil in the ocean, rivers, and creeks, catching fish. The Chief Fisherman manages the beach and mediates community disputes. Cultural practices such as the Malokun Festival, boat regattas, and Umale and Epo masquerades preserve Ilaje traditions and identity.

CALL FOR REFORM

Experts urged the federal government to reciprocate the resilience shown by the Ilaje by holding oil companies accountable—something the government resists. This requires several measures: strengthening oil exploration regulations, enforcing federal high court jurisdictions on oil environment issues, updating laws, ensuring compliance with laws related to pollution, ensuring timely compensation to fishermen after oil spills, investigating environmental damage, and leveraging citizen reporting.

At present, Nigeria stands at a crossroads. The country relies increasingly on fish imports to feed a growing population, yet it faces the urgent need to build a sustainable domestic fishing industry. The systemic marginalization of Ilaje fishermen and other coastal communities underscores the need for substantive reform—not cosmetic change—if sustainability is to be achieved.

As Alebiosu and Kehinde have argued, the stakes have never been higher. "We're fighting against the destruction of our livelihood," Alebiosu once told this writer. "We're fighting for the survival of our culture and tradition."

REIMAGINING THE FUTURE

Imagine a Nigeria where fishermen once again reap bountiful harvests from the Atlantic Ocean; where oil spills and gas flaring have ceased; where colonial and neo-colonial legacies no longer dictate environmental and economic policy; and where a thriving fishing sector strengthens cultural practices and community cohesion. In such a Nigeria, Ilaje fishermen and women could flourish once more.

Oil exploration need not remain an obstacle to fishing livelihoods. Nigeria's greatest strength lies in its skilled fishermen—people like Alebiosu and Kehinde—whose knowledge and labor have sustained coastal communities for generations. Breaking free from colonial structures is essential to realizing that future.



Homes of fishing families in Ayetoro, Ilaje Local Government Area of Ondo State, Nigeria, lie in ruins after oil exploration debris was swept ashore by powerful sea surges, devastating the coastal community. Photo credit: Femi Olorunlola, January 13, 2026.

About the author

Adetokunbo Abiola is a Nigerian journalist who writes at the intersection of climate change, technology, and health. He is also the author of *Labulabu Mask*, a novel, and *American 419 and Other Stories*, a collection of short stories.

GREEN TRANSITION, RED REALITIES: HOW COMMUNITIES IN THE CONGO BASIN ARE RESISTING THE GREEN RUSH

BY JOSEPH TSONGO



Artisanal gold miners, mostly young people, mine gold at the Pangoyi mining site in the Mangurujiba landscape in the heart of the Congo Basin. Photo credit: Joseph Tsongo, July 30, 2025.

"We don't know what to eat anymore," said Mr. Lifoli Fiacre, an elderly fisherman from Basoko, in the Tshopo province of the Democratic Republic of Congo, his voice trembling. For decades, the Aruwini River fed his family, irrigated their fields, and provided the fish that ensured their survival. Today, his nets come up empty. The water has changed color. The fish are disappearing, or when caught, they rot in just a few hours.

"And no one is listening to us," he whispers, his gaze lost on the forest horizon that is gradually being eaten away by bulldozers. His story is not an isolated one. It resonates like a painful echo throughout the Congo Basin, where millions of local and Indigenous communities are now paying the hidden price of a "green transition" that is turning, before their very eyes, into a new form of colonial extractivism.

THE PARADOX OF THE "SOLUTION COUNTRY"

In October 2022, during the pre-COP27 conference held in Kinshasa, the Democratic Republic of Congo proclaimed itself the "solution country" for the planet in the face of the climate crisis. With its vast forests, water resources, and strategic minerals for green technologies, the country is positioning itself as a key player in the global effort to address climate change.

But behind this flattering image of a "solution country" lies a cruel paradox: despite being central to the planet's environmental stability, the DRC remains highly vulnerable to extractive projects that degrade and destroy its ecosystems. In 2024, the country lost approximately 590,000 hectares of primary tropical forest to extractivism, an increase of 60,000 hectares compared to 2023, making it the third most affected country in the world by deforestation, according to the World Resources Institute.

This massive destruction is no accident. It is the direct result of political leaders promoting extractive projects—oil exploitation, mining, industrial logging, and hydroelectric megadams—that devastate the environment. Marketed as "engines of development," these projects are sold on promises of jobs, infrastructure, and prosperity. In reality, they leave behind polluted land, poisoned rivers, displaced communities, and the erosion of ancestral ways of life.



The Byena River flows through the dense forest of the Mangurejiba landscape before emptying into tributaries that feed the Congo River system. Photo credit: Joseph Tsongo, August 30, 2025.

WHEN EXPLOITATION RAVAGES THE LAND AND POISONS THE RIVERS

In Basoko, a territory located on the banks of the Aruwimi River in the northeast of the Democratic Republic of Congo in the province of Tshopo, logging and mining companies such as FODECO, PHC, SODEFOR, and XengJeng Mining have been conducting intensive exploitation operations for several years. The testimonies collected by Jambo Radio—a community and Indigenous multimedia outlet founded in 2023 to amplify local voices—paint a damning picture.

"Our fields are being destroyed without compensation, and the land no longer produces as it once did. The fruit trees that have fed our families for generations are being cut down. Young people were promised jobs, and we were promised schools, hospitals, and roads, but almost nothing has been done in all these years. Just misery. The few roads they have tried to rebuild are primarily for the passage of their vehicles," said Ms. Moyingo Darlose, a local farmer.

The rivers and lakes that were once crystal clear (such as the Aruwini River and Lakes Albert and Edward) are now contaminated by fuel and chemical spills. Fish stocks are collapsing. "We used to be able to easily catch enough fish to feed our families. Now, fish are scarce. And when we do catch a few, they rot quickly. We're afraid to eat them," said Mr. Lifoli Fiacre.

In Mege and Bandai, two villages in the province of Ituri, northeast of the country and next to Tshopo, the reality is even more brutal. In October 2021, bulldozers escorted by the army razed more than 2,500 homes to allow for the expansion of Kibali Goldmines, Africa's largest gold mine.

The inhabitants were evicted with minimal compensation: USD 500 and a few sheets of corrugated iron. "How can we rebuild our lives with that? And what about intimidating those who dare to denounce these abuses by defending the rights of these communities?" asks a Mbuti Indigenous woman and mother who has already been arrested for speaking out about what is happening here. A report by the international organization PAX documented violations of the Congolese Mining Code—designed to limit the environmental impacts of extractive activities—and raised concerns about the role of security forces in human rights abuses associated with extractive operations.

For the Mbuti and Twa people, the destruction is both environmental and existential. The forest that fed, protected, and inspired them is disappearing a little more every day. With it, an invaluable heritage is vanishing, including ancestral knowledge of medicinal plants, spiritual practices linked to sacred sites, and social organization based on harmony with nature.

Yet Congolese laws, including the revised Mining Code of 2018, the Environmental Protection Law of 2011, and the country's international commitments, require the protection of these lands, these forests, and these lives. But on the ground, corruption and impunity reign. The voices of communities are systematically silenced.

LAKES ALBERT AND EDWARD VERSUS OIL: A HISTORIC LAWSUIT

Deep in the eastern part of the country, along Lakes Albert and Edward on the Ugandan-Congolese border, another environmental tragedy is also unfolding—one that starkly illustrates how the so-called "energy transition" is being pursued at the expense of millions of lives.

DISPATCHES FROM OUR RELATIVES

In September 2025, as they had done every morning for generations, Congolese fishermen cast their nets into waters that sustain more than two million people. That morning, something was wrong: the nets came back empty.

Josué Kambasu Katsuva Mukura, president ofthe Lake Edward fishermen's committee, said: "We are seeing some species of fish gradually disappearing. We don't understand what is happening, but we know that something is killing our lakes."

Some 200 kilometers to the north of Lake Edward, Modestine Raciwu, a mother who has worked in the fishing industry for decades, made the same alarming observation. "Before, I could easily buy fish to feed my family and sell at the market. Now, fish are becoming increasingly scarce and expensive. How are we going to survive without a means of subsistence?".

The answer to this disaster lies a few kilometers from the Ugandan shore, where two gigantic oil projects, Tilenga and Kingfisher, are being operated by Total Energies and the China National Offshore Oil Corporation (CNOOC). On October 2, 2025, the scientific organization Environmental Law Alliance Worldwide (ELAW) published an explosive report documenting how these projects cause lake eutrophication: a gradual suffocation caused by the proliferation of toxic algae resulting from chemical discharges. In simple terms, oil activities are slowly poisoning the water. Fish are dying, and communities are dying with them.

While Uganda was building these offshore oil projects just miles from the Congolese border, the Congolese communities were left in the dark. There was no outreach to Congolese communities and no cross-border social or environmental impact assessments conducted. Congolese authorities did not implement measures to engage or inform affected populations.

October 27, 2025, marked a stunning turn of events. Two ordinary Congolese fishermen, Uweci Wele Moïse from Lake Albert and Josué Kambasu Katsuva Mukura from Lake Edward, accompanied by the local organization Congolese Alert for the Environment and Human Rights (ACEDH), filed the first cross-border climate dispute in East Africa before the East African Community Court of Justice in Arusha, Tanzania.

They sued Uganda for cross-border pollution, the Democratic Republic of Congo for abandoning its citizens, and the East African Community Secretariat for inaction. Their demands are simple but powerful: an immediate halt to polluting activities, a cross-border impact assessment that includes Congolese community members, and full compensation for damages according to the "polluter pays" principle.



Outcropping rocks and fragments of forest in an artisanal mining area called Pangoyi, located in the Mangurejiba landscape in the Congo Basin. Photo credit: Joseph Tsongo, July 30, 2025.

THE GREEN RUSH: WHEN CARBON TAKES VER FORESTS

But extractivism is no longer limited to tangible resources. It now extends to “ecosystem services” themselves, particularly through voluntary carbon credit markets presented as a “win-win solution” for financing conservation.

A recent report by Rainforest Foundation UK, “The great green rush: the exponential rise and social impacts of forest carbon offset projects in the DRC,” which analyzed the situation of carbon projects in the Democratic Republic of Congo, exposes the dark side of this “green rush.” The report identifies 71 forest carbon offset projects throughout the country, covering a total area of approximately 103 million hectares, or nearly half of the country's territory. These projects include registered or ongoing initiatives, but not all of them have obtained valid certification or effectively sold carbon credits on the international market. In addition to these geolocated projects, the report notes that agreements covering more than 80 million hectares have been signed between public authorities and private companies without clear geographic location or sufficient oversight, opening the door to overlaps and broad control of forests on paper.

As a result, the sector remains largely opaque. According to Rainforest Foundation UK, the national registry—the official database meant to list and document carbon projects, including their location, developers, land rights, and carbon certificates—is incomplete. Published only in late 2024, it does not include all projects and often lacks essential information, making it difficult to track who controls these initiatives and how they operate.

Only three projects are known to have sold carbon credits internationally. Many others are linked to forest concessions—areas of land allocated by the state to companies, NGOs, or project developers to carry out carbon or conservation activities. In many cases, these concessions are controlled by former logging companies that have shifted into carbon forestry, often on forests that were already exploited. This raises serious questions about the true ecological value of these projects and whether they deliver real environmental benefits.

Numerous irregularities have been documented, including illegal allocations, lack of consultation, and violations of the Forest Code. For local communities, the promises of economic and environmental benefits remain largely illusory. The right to Free, Prior, and Informed Consent (FPIC) is regularly violated. Enacted in particular by the United Nations Declaration on the Rights of Indigenous Peoples, adopted by the UN in 2007, the principle of Free, Prior, and Informed Consent requires states and companies to obtain the prior consent of the communities concerned to protect their lands, rights, and ways of life before any project that may affect them.

Maître Olivier Ndoole, environmental lawyer and executive director of the local organization ACEDH, explains that the FPIC principle guarantees that communities can accept or reject projects affecting their lands. “But in practice, consultations are often empty formalities. Women and young people are excluded. Information is incomplete or manipulated. And when communities say no, it is ignored,” he added.

In the DRC, as in other parts of Africa, these projects have fueled land tensions and flamed deep-rooted conflicts while lining the pockets of the elite (companies & government), often without delivering tangible climate or development benefits. They have also constrained community forestry by limiting access to collective land titles, which are essential for autonomous land management and self-determination.

TOWARDS A TRULY JUST TRANSITION, PUTTING LOCAL VOICES AT THE CENTER

To prevent the “green” transition from becoming a “red” one—marked by blood, suffering, and injustice—movements for resistance and accountability are beginning to emerge. The climate dispute involving fishermen from Lakes Albert and Edward—Case No. 47 of 2025 before the East African Court of Justice, brought against the Democratic Republic of the Congo, Uganda, and the East African Community—could establish an important legal precedent for cross-border environmental responsibility in Africa. In the face of exclusion, Silenced communities are choosing to remain silent no more. Community media, campaigns such as Notre Terre Sans Pétrole, and alliances with international NGOs are creating spaces for resistance and renewed possibilities. The Congo Basin is not only a global ecological treasure; it is, above all, a place people call home.

About the author

Joseph Tsongo is a Congolese storyteller and community journalist based in the Democratic Republic of Congo, where he has been covering environmental and climate issues for over five years. He is also the co-founder of Jambo Radio, a community and indigenous multimedia outlet established in the Congo Basin in 2023.

THE LEGACY OF FRANCE’S NUCLEAR TESTS IN ALGERIA

BY ZIANE GUEDIM

The morning of February 13, 1960, began in stillness in Reggane, 900 miles southwest of Algiers, deep in the Algerian Sahara. Windless, indifferent, almost serene, the desert stretched flat and endless around the site. Then, at 7:04 a.m., the sky split open. A blinding flash tore through the horizon—a fireball swelling hundreds of meters wide, followed by a thunderclap that swallowed the desert’s silence. A shockwave raced outward, rippling across sand, stone, and human bodies.

In a matter of seconds, the Sahara—once a colonial outpost—was transformed into a nuclear frontier. France had just detonated its first atomic bomb, known as Gerboise Bleue (Blue Jerboa). The blast, equivalent to 70 kilotons of TNT, was far more powerful than the bomb dropped on Hiroshima more than a decade before. A towering column of radioactive dust surged into the atmosphere, then drifted across North Africa and beyond, carried by winds that recognized no colonial borders.

For France, that morning marked its triumphant entry into the nuclear club. For the people of Reggane, it marked the start of a new, irreversible reality.

Ami Mohamed was working near the site that morning. He was hauling stones for the French military. He had not been told what was coming, nor given protective gear. When the flash erupted, he felt the ground shudder beneath his feet as the air slammed into his body like a wall. He would later recall watching the towering cloud rise—swallowing the sky—without realizing he was standing at the edge of an atomic experiment. He was not alone.

Thousands of civilians in Reggane and the surrounding areas were caught in France’s nuclear experiment. Entire communities—an estimated 42,000 people—were left directly in the path of radioactive fallout. Between 1960 and 1966, France conducted at least 17 nuclear tests in the Algerian desert—four atmospheric explosions near Reggane, followed by thirteen underground tests in the Hoggar region. These detonations, along with a series of additional experiments linked to weapons development and waste management, left a deep and lasting imprint on the Sahara.

More than scientific experiments or Cold War posturing, France's nuclear tests in Algeria were a form of colonial risk externalization: the deliberate transfer of existential danger onto a colonized land and its people. The colonial administration exported the catastrophic potential of its nuclear program far from its own population, offloading the risks of fallout and long-term contamination onto a colony deemed expendable.

The consequences—cancers, birth defects, poisoned ecosystems—became a lasting toxic legacy, persisting long after colonial rule had ended. The tests embodied the core logic of the colonial empire: land and lives were appropriated to secure power. France accrued prestige, deterrence, and geopolitical leverage, while the risks—contamination, illness, and displacement—were borne by its colonial subjects. Algerian territory, and later French Polynesia, became the proving ground.

"I had prayed the dawn prayer and remained seated when the bomb exploded and lit up the entire room," recalls an elderly survivor, his testimony preserved by the International Committee of the Red Cross. "People began praying and supplicating to God, thinking it was the end of the world. Then came a tempestuous wind that killed people and livestock. I lost 25 camels that year."

Decades after the last test conducted in 1966, the environmental damage remains deeply embedded in the landscape. Radioactive debris was left scattered across the desert, as French authorities buried contaminated metal, equipment, and vehicles used during the tests. Contaminated materials—including metal and sand—were reportedly reused in homes, fences, and tools. Contamination of soil and water forced herders to avoid ancestral grazing routes.

Radioactive debris contaminated grazing lands and water sources. Livestock died after exposure, and herders were forced to avoid or abandon traditional routes, disrupting nomadic patterns and leading some settlements to be deserted.

In a landscape where mobility is survival, contamination altered centuries-old patterns of life, quietly reshaping desert ecologies and human geographies alike.

The ecological consequences were not confined to the blast sites. The atmospheric detonations fused desert sand into radioactive glass and spread toxic contamination across wide areas of the Sahara.

Subsequent underground tests fractured granite mountains, releasing contaminated rubble and radioactive gases. Radioactive material seeped into soil layers, contaminating desert wells and aquifers that sustained local populations and oases. In an arid environment where water sources are scarce, the contamination of wells reshaped patterns of settlement, migration, and survival.

Large tracts of land were rendered hazardous for grazing and habitation, forcing families to abandon ancestral camps or relocate entirely. Even decades later, international agencies and researchers have detected elevated radioactivity in the test zones. For Indigenous communities, environmental destruction was inseparable from cultural loss: their land that carried identity, memory, and subsistence became a landscape of uncertainty and danger.

These environmental harms have had lasting consequences for human health as well. The Sahara, often imagined as empty, was in fact a densely inhabited ecosystem. Despite French colonial claims that had depicted it as a blank space on the imperial map, framing it as a barren, uninhabited expanse fit for sacrifice. Residents of Reggane and the Hoggar region—Tuareg pastoralist communities, Arab nomadic groups, and other oasis populations—continue to report elevated rates of reproductive complications, cancers, and other chronic illnesses as recently as the 2020s. Regional reporting and surveys of veterans exposed to fallout have found disease patterns that appear higher than typical national baselines.

For example, surveys of French test site veterans found about 35 % had one or more types of cancer and roughly 20 % reported infertility, rates that far exceed what would be expected in a comparable non-exposed group.

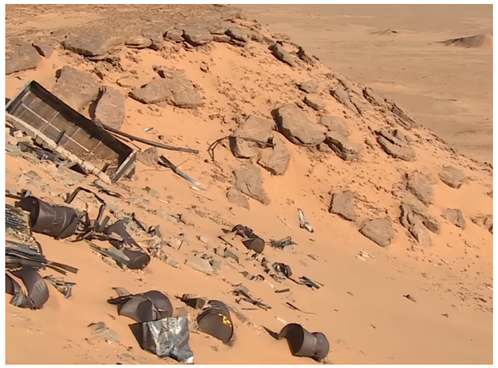
Physicians and researchers have documented cases of childhood leukemia, thyroid disorders, and congenital malformations in communities near Reggane and In Ekker. Local clinicians and advocacy groups report rates of cancer and reproductive complications that appear higher than national averages, particularly for thyroid cancers and hematological malignancies, which are known to be radiation-sensitive. However, the absence of systematic epidemiological surveillance in the region before and after the tests, combined with limited access to medical records, makes precise quantification difficult. For many families, illness arrived without explanation, diagnosis, or compensation, leaving patterns of disease to be tracked through testimony rather than comprehensive public health data.

The desert was further impacted by ancillary nuclear activities conducted during the 1960–1966 testing period, including dispersal trials and waste-related explosions. As a result, radioactive contamination became embedded in the Sahara itself—its soil, rocks, and hidden hotspots—turning the desert into a long-term repository of nuclear waste and unresolved harm.

The scale of the contamination became fully apparent only decades later, when France partially declassified fallout maps in 2013. The documents revealed radioactive particles spreading far beyond Algeria's borders. "This map shows that twenty-six African countries were contaminated by this explosion," said nuclear physicist Ammar Mansouri. "This is a major crime, not a local one, but a continental crime."

Compiled by the French military in the weeks following the first detonation in Reggane, the map tracked radioactive dispersion day by day. They showed fallout plumes extending far beyond the officially acknowledged zones, sweeping across much of North and West Africa, reaching the Sahel, Central Africa, and the Atlantic coast. Subsequent reporting and archival research suggested that radioactive particles also crossed the Mediterranean. Traces were detected in southern Spain, Italy, and the Mediterranean islands. The maps did not quantify health or ecological damage; instead, they documented what France had long concealed: that the blast was never a local event.

But what would justice look like six decades later? No cleanup, reparation, or apology can fully undo the damage already done. The land remains scarred, bodies carry the legacy of exposure, and entire generations continue to live under a shadow that no compensation can completely erase.



Contaminated metal debris left exposed after France's nuclear tests at the Reggane site, still visible and accessible today. Photo credit: Tarek Hillali, January 2026.

About the author

Ziane "Zed" Guedim is an Algerian writer and journalist whose work spans fiction and nonfiction. Fluent in Arabic, French, and English, he explores stories at the intersection of history, culture, and social justice. His fiction has been published in international journals and anthologies.

PROGRESS OR DIGITAL COLONIZATION? AI DATA CENTERS SPARK DEBATE ON NATIVE LANDS

BY JEN DEERINWATER & JESSE DEER IN WATER

The recent explosion in artificial intelligence (AI) data centers has created a litany of environmental and cultural issues for Native people and Tribes across the so-called "United States." This, in turn, has sparked intense debate and prompted conversations on tribal digital sovereignty and a call for regulation that controls the data, infrastructure, and networks.

Data centers are facilities that keep and manage internet technology infrastructure for processing, storing, and distributing large quantities of data. They are key to modern digital services, which can include AI. As AI use and data generation grow, so does the need for data centers to manage and store data. But the environmental impact is a growing concern for many, especially for Tribal Nations in the "U.S."

Debates rage on within Native communities over concerns about the resources needed to power the centers, the environmental impacts of such centers, and the rampant cultural appropriation and creative and cultural theft predominant in AI. Some in Indian Country believe data centers can be used for the betterment of Tribes, while others are diametrically opposed.

ENERGY PRODUCTION RAMPS UP FOR AI

The "U.S." is home to a third of the world's data centers. The centers require large amounts of electricity to power them and water to cool them. On average, a single data center can consume up to 2 megawatt hours (MWh) of electricity-the amount of electricity they use per hour-approximately the equivalent power consumption of a small town. Data centers consumed more than 4% of "U.S." electricity in 2023, with estimates suggesting a potential rise to 12% by 2028.

Bloomberg News reported in January 2026 that in areas near AI data centers, there has been a 267% increase in monthly electricity costs compared to five years ago. This increase is due to a need to expand existing regional power grids to support the centers, costs which are often passed onto consumers, including urban Native communities.



A young demonstrator holds a sign reading "Keep Michigan Pure" during the "No Data Centers, No Secret Deals" protest. The rally brought together residents concerned about environmental protections, water resources, and government transparency. Photo credit: Valerie Jean, December 16, 2025.

The states housing the data centers give the ok to local energy utilities to raise customers' utility fees to pay for the massive upgrades required to power the data centers. This passes higher rates on to all customers, including urban Natives. Over 70% of the Native community in the "U.S." lives in urban and suburban areas suffering from higher rates of poverty.

To meet this growing demand, utility companies are adding new gas plants and delaying the retirement of fossil fuels. One such company in Virginia, the "U.S." state with the largest concentration of data centers in the world, is building a 1,000-megawatt gas plant in Chesterfield County and has gutted plans to switch to renewable energy sources. According to Global Energy Monitor, the "U.S." now accounts for almost one-quarter of the world's total gas powered energy in development with more than one-third of the energy reserved for data centers.

There has also been a push for nuclear energy proliferation to power data centers. Meta, a social media and technology multinational company, is now one of the largest corporate purchasers of nuclear energy in "U.S." history. They've recently announced several agreements with three major energy providers to secure up to 6.6 gigawatts of nuclear power by 2035.

There are talks of reopening Three Mile Island (TMI), a defunct nuclear power plant that sits atop a strip of land in the Susquehanna River in "Pennsylvania,"to power Microsoft's data centers. On March 28, 1979, TMI experienced a partial meltdown when a cooling system malfunctioned. Today, there's roughly a tennis court-sized amount of High-Level Radioactive Waste from the incident stored on site. In a sick twist of irony, TMI will be renamed the Crane Clean Energy Complex if successful in reopening in 2027, one year earlier than originally estimated.

The energy plant, data centers, and TMI are in an area of the "U.S." that has suffered from a gas fracking boom of the Marcellus and Utica Shales that has already led to increases in cancer and other health issues, environmental harm to local water supplies, and the devaluation of people's homes. Communities have fought numerous pipelines, cracker plants, export, and other related facilities since the boom took off in late 2009/early 2010. The shales cover a large section of Central Appalachia, extending into "New York" state near several Native reservations such as the Onondaga.

The Office of Nuclear Energy under the U.S. Department of Energy claims that the radiation exposure from the TMI catastrophe was limited with no resulting fatalities, adverse health impacts, or environmental repercussions. However, health impacts from Three Mile Island have indeed been documented. Penn State College of Medicine researchers found "tumor samples from people verified to have lived in the areas around TMI at the time of the accident, remained in the area, and subsequently developed thyroid cancer, researchers observed a shift in cases to cancer mutations consistent with radiation exposure from those consistent with random causes." This gives credence to the opposition who claim the government and nuclear and tech industries are downplaying the consequences of nuclear energy, including environmental ramifications.

More nuclear power plants equals more uranium mining. The largest deposits of uranium in the "U.S." sit on Native lands, like the Navajo Nation. The largest uranium deposits in the world are on Indigenous lands in "Australia." Communities in these areas suffer from significantly higher rates of cancer with fewer healthcare resources than other areas of the colonial countries.

AI data centers are also furthering the "U.S." military industrial complex. In December 2024, the University of Michigan announced an $850 million investment in partnership with Los Alamos National Laboratory, the institution responsible for developing, testing, and deploying the nuclear bomb through the Manhattan Project. University officials state they're building the "biggest, baddest, fastest computer in the world," with over 90% of the facility's computational power slated for LANL's classified warfare project. U.S. Secretary of Energy Chris Wright has proudly proclaimed that the "U.S." government's buildup of AI infrastructure is "the Second Manhattan Project," moving the world toward nuclear war on the backs of the local community and "Michigan" taxpayers. Beginning in 1951, the "U.S." government performed 928 nuclear tests on Western Shoshone lands; the most nuclear-bombed nation in the world.



Protesters gather outside the Michigan State Capitol during the "No Data Centers, No Secret Deals" demonstration, holding signs that read "Big Tech Back Off." Participants called for public investment in essential services and greater transparency in development decisions. Photo credit: Valerie Jean, December 16, 2025.

DISPATCHES FROM OUR RELATIVES



Protesters gather outside DTE Energy headquarters in downtown Detroit during the "No Data Centers, No Secret Deals" demonstration, opposing a proposed massive data center in Saline Township, Michigan. Around 100 people attended the rally, holding signs reading "You Can't Drink Data" and "No Secret Deals for Data" to raise concerns about water use, transparency, and public accountability in the project. Photo credit: Valerie Jean, December 16, 2025.

Cheyenne Morgan (United Keetoowah Band and Oglala Lakota), Coalitional Coordinator of Stop Data Colonialism, told *The Magazine* that Project Clydesdale, a proposed data center project south of "Owasso, Oklahoma" on the Cherokee Nation reservation, has been a source of concern for some in the community. Morgan noticed while reading documents related to a zoning proposal that the message conveyed to the public differed to that in industry and government documents. "Talk to your neighbors about data centers, find out what they know, file open records requests with your local, county, and state governments," Morgan warned.

AI & WATER USAGE

A July 2025 University of Michigan study states that for higher-density data centers cooling via water is required for the centers' performance. As of this publication, 22% of data center facilities use water-based cooling systems. Most data centers use over 10 million gallons of water annually; some exceed that with usage in the hundreds of millions of gallons per year. Google's Council Bluffs data center in Iowa uses approximately 980 million gallons of water per year, equivalent to the annual water usage of over 4 million homes.

In sharp contrast is the lack of clean water access on reservations. According to the Navajo Water Project, in 2019 30% of those residing on the Navajo Nation, the largest reservation in the "U.S.," were without running water. In 2023, the U.S. Supreme Court ruled that the "U.S." owes no "affirmative duty" to the Navajo Nation to secure water, reversing a decision by the U.S. Court of Appeals for the 9th Circuit. The justices ruled that the 1868 Treaty of Bosque Redondo established no federal obligation to do so.

There may be water-saving alternatives. According to Matthew Rantanen (Cree descendant), the Director of Technology for the Southern California Tribal Chairman's Association, co-chair for the Tech and Telecommunications Committee at the National Congress of American Indians, and cofounder of the tribal broadband boot camps, data centers can have more sustainable construction. Rantanen told *The Magazine* that data centers can be built underground, using the Earth's natural cooling to reduce the heat created by the equipment, as well as different air flow systems that can avoid the usage of water altogether. "I think in most of the Indian country, at least the opposition I hear, is all about the water, and I think secondarily it's about the power grid that's local to the region. The generative AI versions of data centers, such as those by Google, Facebook, Apple, Microsoft, and Amazon, these types of data centers use the most resources, but they don't all have to be built this way."

INTERNET ACCESS & DATA SOVEREIGNTY

As so often the norm, Tribes and Native people suffer the consequences of technological advances without reaping the benefits. In 2020, the Government Accountability Office (GAO) reported conservative estimates that nationwide, 18% of people living on tribal lands couldn't access broadband service, compared to 4% of people in non-tribal areas. Broadband availability includes speeds of 25 Mbps download and 3 Mbps upload or greater, excluding satellite service.



A protester holds a sign reading "AI < Literally Everything Else!" during the "No Data Centers, No Secret Deals" demonstration outside the Michigan State Capitol. Participants voiced concerns about prioritizing artificial intelligence infrastructure over community needs and public resources. Photo credit: Valerie Jean, December 16, 2025.

The GAO has stated that the Federal Communications Commission (FCC) has overreported broadband access on tribal lands, as the numbers the FCC shared are self-reported data by broadband carriers. According to Rantanen, carriers will count an entire census block as having coverage if they can hook up one person to broadband. "That is not coverage, affordability, or reality," Rantanen told *The Magazine*.

In 2021, the Executive Office of the President in the "U.S." began coordinating federal tribal broadband efforts, but according to GAO, these efforts "are not guided by a national strategy with clear roles, goals, and performance measures," and that the American Broadband Initiative (ABI), an intergovernmental agency effort to expand broadband access across the "U.S.," "lacks a framework for addressing tribal barriers that could also support implementing a national strategy."

Many Indigenous communities are concerned with cultural appropriation and data theft as a result of AI, as well as outside government intrusion. Tribes are combating some of these issues by producing their own data centers. Rantanen told *The Magazine* that these centers use low amounts of power and are a way for tribes to control their data. They'll no longer have to put sensitive information, such as enrollment records, on outside cloud servers that then open their data up for theft, use in training AI, and even subpoenas or snooping by federal agencies like ICE or FBI.

Tribal control over smaller, local data centers could not only potentially improve safety and security for tribal members, but also for the environment. "I think making big blanket statements about data centers can harm some of those smaller, very effective uses of the term," Rantanen said. But he also warned that tribes need to create policies related to data sovereignty and AI, data storage, and transmission in order to ensure the best practices for their tribe.

About the author

Jen Deerinwater is a citizen of the Cherokee Nation, journalist, and the founding executive director of Crushing Colonialism. Jen is currently a member of the Disability Community Advisory Group for the first of its kind American LGBTQ Museum and serves as a member of the Rooted Together: Building Power through Diasporic Dialogue cohort. Jen is also a member of the board of directors for the Disabled Journalist Association and a Senior Advisor for the Disability Culture Lab.

Jesse Deer In Water is a citizen of the Cherokee Nation of Oklahoma and visitor on Traditional Homelands of The Anishinabek 3 Fires Confederacy of Ojibwe, Bodewadomi and Odawa peoples in the area known as Wawiyamtanong ("North Redford, MI"). Jesse is a community organizer, a father of three, and friend and family to many, including plants, beings, and elements within this existence.

IN THE AMAZON, INDIGENOUS COMMUNITIES ARE RECORDING THE FOREST TO PROVE IT IS ALIVE

BY FAVOUR AMOYE

In the Sarayaku territory of the Ecuadorian Amazon, the day does not begin with light—it begins with sound. At 4:30 a.m., howler monkeys call out, their roars carrying for miles through the forest. Tinamous follow, ground birds releasing low, pulsing whistles. To an outsider, it may register as jungle noise. To the Kichwa people, it is a living data stream, revealing shifts in temperature and humidity, and signaling which fruit trees are at their peak. But lately, that soundscape has begun to change.

The elders have been the first to notice. They have pointed out that the Great Potoo, a bird that sounds like a human crying, is now silent in areas where it used to be constant. They have noticed the absence of the low-frequency hum of certain insects. When these sounds disappear, they say, it means the living forest is slowly retreating. This is an early warning system: when the forest falls silent, the biological chain is already broken.

> *When these sounds disappear, they say, it means the living forest is slowly retreating. This is an early warning system: when the forest falls silent, the biological chain is already broken.*

Listening to the forest as the Sarayaku do is known as ecoacoustics—a field of study that treats sound as a biological fingerprint.Every insect, bird, frog, and mammal occupies its own sonic range: a cricket chirps at high pitch, a toad croaks at low. In a healthy forest, these sounds overlap and interlock like pieces of a puzzle, forming what scientists call an acoustic signature.

The Sarayaku are a Kichwa community of about 1,200 people who live on 135,000 hectares of ancestral territory in Pastaza Province. Their way of life is guided by a legal and spiritual framework known as Kawsak Sacha, or the "Living Forest." For the Sarayaku, this is not a metaphor but the foundation of their survival. In their daily life, everyone in the community is a data collector. Fewer calls trigger discussion within the community council, the Tayjasaruta, which may vote to suspend hunting in that area for several months. Farming, too, is guided by sound. The arrival of the Chuyya-yaqui bird signals the precise moment to clear small plots and plant yuca and plantains.

But more than two decades ago, an attemptedoil exploration project put the forest and the Sarayaku territory under threat. In 2002, an Argentine oil company began operations to determine how much oil lay beneath a 200,000-hectare concessioned land granted by the Ecuadorian government. To conduct seismic testing, the company forcibly entered Sarayaku territory and buried 1,433 kilograms, nearly 1.5 tons of high-grade pentolite explosives in 467 locations across the forest. The detonations left craters and destroyed sacred sites, and contaminated the water table. The noise pollution was catastrophic.

"We didn't need a lab to tell us the land was hurt," says Sabino Gualinga, a Sarayaku elder. "The vibration drove the fish away from the river banks, and the birds stopped nesting near the trails. The forest became *manlla*—fearful."

"When the explosives went off, the earth didn't just shake; it broke," explains Franco Viteri, a former Sarayaku leader. "The tapirs, the largest mammals we hunt, fled deep into the primary forest, far beyond our reach. They are sensitive to ground vibrations. It took years for them to come back."

The Sarayaku community came together to resist the threat to their territory, taking their struggle beyond the forest and into international courts. In 2012, they won a landmark case against the Ecuadorian state at the Inter-American Court of Human Rights. To demonstrate the damage caused by the explosions, the Sarayaku developed a system that recorded the forest itself, blending ancestral knowledge with modern technology.

Eriberto Gualinga and other community leaders launched a pilot project in 2019 that transformed the forest's sounds into hard data. They deployed small, weatherproof recording units, hidden high in the canopy, that captured 24 hours of sound each day. By monitoring the presence—or absence—of certain birds and insects, they established a digital baseline of the forest's health.

> *By monitoring the presence—or absence—of certain birds and insects, they established a digital baseline of the forest's health.*

"We were taking what our grandparents taught us and putting it into a format that a judge in a city could understand," Gualinga explains. "If an elder said the parrot has stopped flying over a certain valley, the recordings could back him up with timestamps and frequency charts."

Today, the Sarayaku have transformed the forest into a living laboratory. The process is simple: monitors, often young people trained by Gualinga and other community leaders, venture into the primary forest to place small green recording devices on tree trunks. These devices are programmed to record at key times of the day: dawn, midday, and dusk.

The data is stored on memory cards and analyzed to monitor specific indicator species. For example, the Trumpeter bird, a ground-dweller highly sensitive to human presence, is closely tracked. If it disappears from the recordings, the community knows that outsiders or illegal hunters have entered that area, even if no footprints are visible. They also monitor noise pollution. Modern sounds, like the low drone of a distant airplane or a motorized canoe, vibrate at frequencies that differ from natural animal calls. These intrusive noises can drown out the mating calls of frogs, preventing them from reproducing.

The logic of using sound as a legal shield isn't unique to the Amazon. First Nations across Turtle Island, particularly in the Pacific Northwest, have adopted the same strategy. While the landscapes differ, the goal is the same: to show that industrial noise is a form of pollution that can harm both the environment and Indigenous ways of life.

In the Salish Sea, Indigenous communities monitor underwater acoustics to protect the Southern Resident orcas. Just as oil explosions disrupted the Sarayaku forest, noise from commercial shipping and pipeline construction creates "acoustic smog" for whales. Both regions use frequency masking as evidence: if a ship's engine vibrates at the same frequency an orca uses to locate salmon, the habitat is considered legally damaged, even if the water appears pristine. Like the Sarayaku, First Nations rely on these recordings to assert that their right to hunt and fish depends on an undisturbed and healthy environment.

The forest speaks, and the Sarayaku have always known how to listen. By turning sound into evidence, they have made environmental damage undeniable, showing that harm is not abstract or invisible; it is audible long before it becomes irreversible. Their work is a powerful reminder that protecting the land requires more than care and intention; it requires attention. The least we can do is listen when the forest tells us something is wrong.

About the author

Amoye Favour is a poet, a freelance writer and a lover of humanity. A writer at heart, Amoye Favour loves to write on topics that have humanity as their center. When he is not writing scripts, essays, or articles, he is somewhere playing chess. He is a lover of God and is currently based out of Lagos, Nigeria. He can be reached out via X at his handle- @amoyef.Amoye Favour is a poet, a freelance writer, and a lover of humanity. A writer at heart, Amoye Favour loves to write on topics that have humanity as their center. When he is not writing scripts, essays, or articles, he is somewhere playing chess. He is a lover of God and is currently based out of Lagos, Nigeria. He can be reached out via X at his handle- @amoyef.

ESSAY

RECLAIMING THE GROVE

BY TUNJI OFFEYI

Heritage in Nigeria is both tangible and intangible, shaped by landscapes that sustain society through vital ecosystem services. This creates responsibility for those who inhabit the land, yet breakdowns lead to deforestation, polluted rivers, and threatened livelihoods. Such degradation exposes how ecological integrity and community well-being are inseparable. International frameworks like UNESCO's affirm sacred landscapes as cultural heritage, where nature and identity are jointly protected.

> *Rivers once revered are now dredged, polluted, or fished without restraint.*

This understanding inspired my poem "Forest of the Gods," published in this issue—a meditation on ecological loss, ancestral memory, and resistance. The poem reflects on how sacred forests, once protected by collective belief and communal care, are now under siege. Trees fall where taboos once stood—where Indigenous laws and sacred prohibitions once governed land use, protecting forests through collective accountability.

Rivers once revered are now dredged, polluted, or fished without restraint. The spiritual covenants that bound people to land are dismissed as superstition, inconvenient to profit and development. Environmental degradation, in this context, is not accidental; it is ideological, shaped by systems that prioritize extraction and growth over continuity and care. "Forest of the Gods" was written from this place of mourning and defiance. It asks what happens when sacred spaces are stripped of meaning and sold. It asks who benefits and who pays the price. And it insists that resistance, however fragile, still exists. The poem is not nostalgic; it is confrontational. It refuses to accept destruction as inevitable.

Yet the destruction is not coming only from some distant enemy. Often, it is driven from within. Developers, miners, politicians, and intermediaries—armed with documents, bulldozers, and state backing—flatten groves and rename them "estates." Ancestral land becomes "prime property." And what was once sacred becomes "vacant." This pattern reflects a broader crisis of land governance in Nigeria, where communal tenure and spiritual claims are routinely overridden by formal titles and state approvals, leaving sacred spaces particularly vulnerable to seizure and erasure.

It was against this backdrop that I spoke to a youth leader from Poka, an Indigenous community in Lagos State, south-west Nigeria, who asked to remain anonymous. Poka's residents have traditionally relied on a local grove for ecological services, including clean air, water filtration, and pollinator habitats, as well as for ritual and cultural practices. I asked him about this sacred grove, known as Igbo Oro, a protected forest space of cultural and spiritual significance, with giant trees overlooking the Pobo primary school.

"That one is gone," he said.

"Gone to where?"

"Real estate capitalists," he replied. "And we are helpless. Our home is gone."

The grove he referred to was once a living archive—trees that filtered air and water, habitats for birds and insects, and sites for rituals connecting the community to ancestors—now cleared for development. His words echo documented patterns across Lagos and Ogun States, where Oro groves and other ritual forests have been cleared for housing and infrastructure, often without environmental impact assessments or community consent, reflecting the rapid pace of urbanization and forest conversion in south-western Nigeria.

Across Yorubaland, Indigenous communities are resisting dispossession and protecting what remains of their heritage. Sites like the Igbo Oro grove in Poka—once vital for biodiversity, microclimate regulation, and spiritual life—show how remaining forests serve as ecological and cultural keystone habitats. The Osun-Osogbo Sacred Grove, a UNESCO World Heritage Site along the Osun River, stands as the most prominent symbol of this resistance: a living spiritual landscape of shrines, sculptures, and pathways shaped by centuries of Yoruba cosmology. Dedicated to Osun, the òrìsà of fertility, water, and creativity, the grove has endured because ritual practice and communal enforcement safeguarded it long before formal conservation language existed.

The difference between narratives that highlight external "saviors" and the real, ongoing work of local communities defending their land matters is that it shows that sacred spaces in Nigeria are protected not by outsiders but by the persistent labor of those who live with and care for them. Across Yorubaland, it is community members—guardians of groves, ritual practices, and ancestral memory—who resist erasure, maintain ecological balance, and assert spiritual and cultural continuity, even when their efforts go unrecognized.

Beyond Osogbo, similar struggles are unfolding across Yorubaland. In parts of Ogun State and Ekiti State, sacred groves tied to ancestral cults and masquerade traditions have been defended through ritual occupation, community protests, and appeals to customary authority. It is estimated that more than 50 % of the sacred groves in southwestern Nigeria have been destroyed, while another 40 % remain under threat from development pressures, urban expansion, and cultural change.

At Osun-Osogbo, the environmental stakes are real, immediate, and scientifically quantifiable. This 75-hectare grove—one of the last remnants of primary high forest in southern Nigeria—harbors over 400 species of plants and at least seven primate species, including the endangered white-throated guenon, the vulnerable putty-nosed monkey, and the threatened red-capped mangabey. The grove functions as a critical reservoir of biodiversity and ecosystem complexity.

Taboos on hunting, fishing, tree-felling, farming, and removing natural materials, reinforced through community custodianship and rituals, have enabled in-situ conservation. Thereby helping stabilize microhabitats, maintain soil structure and nutrient cycles, support water quality, and preserve medicinal and ecological diversity. However, like other groves in Yorubaland, the Osun-Osogbo Grove's ecological integrity is under cumulative pressure. These include urban encroachment on its buffer zone, pollution of the Osun River, visitor-related impacts during annual festivals, and habitat fragmentation. Reflecting on these challenges, Doyin Olosun, one of the grove's custodians and adopted daughter of the late priestess Adunni Olorisa, said: "That's our biggest concern at the moment, the water isn't the same as it was then . . . the mining waste has contaminated all of Osun River's tributaries."

Along the Ogun River and around sites such as Asejire, communities have mobilized against industrial pollution and water extraction projects that threaten ritual waters central to Yoruba cosmology.

Recent water tests from tributaries feeding the Asejire Reservoir—Ibadan's main water source—show dangerously high levels of lead, aluminium, and arsenic. These toxins pose an immediate threat to public health and the environment. They result from unchecked upstream artisanal mining and unregulated industrial discharge. This trend mirrors the wider mining-driven ecological damage in the region, recently reported by *The Cable*. In Oyo, communities have also issued urgent warnings about illegal mining. They cite irreversible ecological collapse, destabilised watersheds, habitat loss, and increased turbidity from rising sedimentation. In response, traditionalists and community leaders urge authorities to enforce stricter mining regulations, monitor water quality, and support community-driven initiatives to prevent further disasters.

> ***Recent water tests from tributaries feeding the Asejire Reservoir—Ibadan's main water source—show dangerously high levels of lead, aluminium, and arsenic.***

Ayinke Ifatoromade-Otaoti Adefemi of the Isese Renaissance Society (an organized groups within the Yoruba Indigenous religion) explained, "As practitioners of Isese, we hold a deep respect for nature. Our commitment to preserving the environment is integral to our faith, and we are eager to collaborate with others to promote grassroots initiatives that enhance our ecosystem". Here, spiritual claims to land and water increasingly intersect with environmental justice and public health concerns, particularly where sacred rivers also serve as sources of drinking water. Crucially, residents have not waited for state intervention. Community associations, traditional custodians, and youth groups have organised river patrols. They have also documented pollution exposed by journalists and environmental NGOs. Residents have resisted illegal mining and pressed regulators for accountability and long-term watershed protection. Their actions have strengthened adaptive governance, riparian buffer management, and community-led hydrological monitoring.

These threats—now undermining sacred groves and other culturally protected landscapes that once helped filter water, stabilise soils, and shield nearby communities from contamination—are compounded by reduced environmental flows caused by upstream industrial water abstraction and increased sedimentation from land-use change. This weakens natural dilution capacity and heightens toxic-exposure risks for downstream populations, underscoring the urgency of ecosystem-based watershed management, strict enforcement of environmental standards, and protection of both ecosystem function and human health.

DECOLONIZED BEATZ

In Lagos State, where urban expansion is most aggressive and threatens sacred forests and waterways, resistance has taken quieter but no less significant forms. In Isheri, an Awori community; in Ikorodu, home to Indigenous Ìjèbú-speaking people; and in Badagry, traditionally settled by the Ègún, youth groups and traditional leaders have turned to documentation, oral history, and media exposure to delay or contest the conversion of sacred forests and riverbanks into housing estates. Environmental advocates in Lagos have also sounded the alarm on ecological loss tied to urbanization. Desmond Majekodunmi, Chairman of the Lekki Urban Forest and Animal Shelter Initiative, warned that removing mangrove forests worsens water pollution and destroys aquatic habitats for countless species, undermining coastal resilience, according to an EnviroNews report.

Fishermen in nearby Makoko have equally voiced the human consequences of these changes: "Dredgers have spoiled the entire waters," says community leader Baale Semede Emmanuel, describing how sand extraction and lagoon alteration have disrupted fish breeding areas and driven many fish away, undermining traditional livelihoods and food security. In response, the community has organized patrols to monitor illegal dredging, reported violations to local authorities, and collaborated with youth groups to plant mangrove saplings to restore critical breeding grounds. These local strategies echo wider patterns: investigative reporting on the disappearance of Lagos's sacred forests shows how such initiatives struggle against overwhelming economic pressure and how the loss of groves—like the degradation of waterways—erodes both ecological stability and cultural memory. Yet they continue to slow the erasure and preserve collective memory.

These movements come at a cost. Community members challenging developers or state-backed projects often face intimidation, arrest, or economic marginalization—risks that are part of the broader threats faced by land and environmental defenders in Nigeria. At the same time, struggles over water pollution reveal important insights into how resistance to the degradation of sacred groves is both organized and sustained. Specifically, where river contamination has caused visible ecological damage and public health concerns, community actors have responded by moving beyond ritual authority. Instead, they leverage media exposure, environmental advocacy, and scientific evidence to reframe degradation as a shared societal problem. This approach has broadened support and strengthened claims to legitimacy. Similarly, the defence of sacred groves is increasingly adopting this strategy, linking spiritual stewardship with ecological protection and demonstrating how lessons from watershed activism inform contemporary change efforts.

> ***They leverage media exposure, environmental advocacy, and scientific evidence to reframe degradation as a shared societal problem.***

According to the 2025 Global Witness report *Roots of Resistance*, at least 146 land and environmental defense were killed or disappeared worldwide in 2024—on average, about three every week—underscoring how perilous this work has become. In Nigeria, defenders such as Odey Oyama of the Rainforest Resource Development Centre were arrested by more than 40 masked officers and charged with promoting inter-communal war in what he described as an attempt to "silence me for opposing corporate logging and corruption. Defending our environment is a perilous job. You can easily be killed."

Still, the fight continues because the stakes are existential. Forests regulate climate, protect water sources, and sustain biodiversity. Beyond that, they hold memory. They teach relationships. They remind people of who they are and where they come from. Nigeria has already lost an alarming proportion of its forests—an estimated 90–95% of its original forest cover—thereby intensifying pressure on communities defending what remains. To lose these groves is to lose more than trees; it is to lose orientation.

Reclaiming the grove here means sustaining responsibility, memory, and obligation against erasure—not merely recovering lost land. This commitment appears through ongoing stewardship, ritual, documentation, protest, and the refusal to reduce sacred ground to vacant property. Sometimes, reclamation becomes narrative: telling what was lost, identifying ongoing threats, and forging solidarity among pressured communities. These struggles confront colonial systems that commodify land rather than recognize it as a relation. Indigenous environmentalism in Nigeria remains not a relic but a vital, adaptive practice. Across sacred spaces—Osun-Osogbo, Poka, riverbanks, besieged forests—communities assert their present bonds to place, reclaiming the grove as both heritage and ethical imperative: land, water, and memory, inseparably joined.

POEM

A FOREST OF THE GODS

BY TUNJI OFFEYI

They stripped the forest bare.

The wind crept in; the roof took flight.

The sky opened, rain flooded the home,

Children soaked in dirty water —

Sickness arrived; the gods must be angry.

Aye, people of the world, you shot at the rabbit

In Igbo Oro, the sacred grove, yet you ask

Ogun, god of Iron, to clear your path.

But Ogun does not

Make way for the disobedient, like the lizard

Warned not to climb the Iroko, yet boasting after the fall.

Unimagined suffering visits Africa because you

laid the ancestral home bare,

So sickness, war, and strife crash upon us like a Tsunami.

Return the land, regrow the forest of the gods,

And let trouble part from our soil.

The gods must be angry! We must act now!

About the author

Dr. Tunji Offeyi is an award-winning Nigerian-British journalist, poet, and heritage researcher. He holds a doctorate in Heritage from the University of Wales Trinity Saint David and is a Salzburg Global Fellow. In addition to his notable creative works, he also served as Regional Executive of the Liberal Democrats in the West Midlands, UK.

PHOTO ESSAY

SOW. HOE. GROW.

BY BUKUNMI OYEWOLE

Mr. Seun Opadare, a Yoruba man living in Ibadan, transformed part of his compound into a small garden. Using only what he had at home, he learned how to grow food for himself and his neighbors, building the garden from the ground up. His garden is modest in size and wasn't created through any program or external support. It is a daily practice that he maintains, guided by what he can cultivate with his own hands. I started documenting him to understand how a simple daily practice can become a form of care that is steady and rooted in place.

His work began as a personal decision. He wanted food that stayed close to home rather than traveling through long distribution chains. He began by researching online and watching videos on how to plant and care for crops in a small space. Over time, he expanded his garden, experimenting with crops that could thrive despite changing weather. Now, he grows maize, leafy vegetables, okra, radishes, tomatoes, pineapples, sweet potatoes, bananas, and other plants suited to the rainfall and soil in his compound. People often ask if he studied agriculture, and he always replies no—his interest is driven by passion and the belief that anyone with space should grow what they can. As he explained during one of our conversations, "if we can grow some of what we eat at home, we reduce pressure on the market and depend less on long transport that affects the climate." Observing shifts in rainfall and temperature, he sees gardening as a practical way to adapt to these changes.

His decision is also rooted in how the Yoruba understand land. In Yoruba thought, land is inseparable from life—it is part of the household and what sustains a person. Food is not meant to be locked away; when the harvest comes, it should circulate. Accordingly, Mr. Seun Opadare believes that if food grows in front of you, those nearby should also have access to it. He does not treat his garden as a private supply. Instead, he shares fresh produce with his neighbors, without expecting anything in return. As he says, once hunger is removed from a man's problem, most of the problem is solved. The movement of the harvest is part of its meaning, showing that the garden sustains both him and the surrounding community.

Nigeria is facing rising food prices, unpredictable weather, and pressure on household economies. In such times, a small garden within a family compound might seem insignificant from the outside. But its meaning goes far beyond its size.

The garden is a form of adaptation, reducing dependence on external systems that are not always reliable. It is also a way to maintain a sense of self-determination. Mr. Seun Opadare grows without chemicals and sees this as a matter of health and responsibility. Many assume resilience comes only from large-scale interventions or organized structures, yet Mr. Seun Opadare's work demonstrates that everyday, steady practices are also acts of resilience. His garden keeps food close to home in a way that addresses both necessity and dignity.

Sow. Hoe. Grow. is centered on the way a person relates to land and how that relationship extends into the life of a community. It is a record of a home space turning into a living source of support and connection. It is a way of showing that resilience can grow quietly and still matter.

"The garden is a form of adaptation, reducing dependence on external systems that are not always reliable. It is also a way to maintain a sense of self-determination."



Photo credit: Bukunmi Oyewole, July 20, 2022.



Mr. Seun Opadare began his home garden in early 2022 as a way to grow food close to home and reduce dependence on the market. He shares the harvest with the three neighbours who live in the same compound in Ibadan, Nigeria. Photo credit: Bukunmi Oyewole, July 20, 2022



Mr. Seun Opadare plants seedlings in his home garden, part of the routine he began three years ago after noticing shifts in rainfall and food availability. He describes gardening as a practical way to adapt, saying "if we can grow some of what we eat at home, we reduce pressure on the market." Photo credit: Bukunmi Oyewole, July 20, 2022

DECOLONIZED BEATZ



Mr. Seun Opadare stands in his home garden, which he has maintained as a steady personal practice. Visitors who pass through the compound often ask him questions, and he encourages them to try growing what they can in their own space. Photo credit: Bukunmi Oyewole, July 20, 2022



Mr. Seun Opadare carries seedlings he has prepared for planting, a process he repeats across seasons as he tests which crops respond best to changing weather. He gardens organically and says "we grow organic so we can control what enters our food." Photo credit: Bukunmi Oyewole, July 20, 2022



Mr. Seun Opadare works on his home garden, in Ibadan, Nigeria. He shares the harvest with his neighbours, sometimes knocking on their doors or leaving it on their doorstep when they are not home. Photo credit: Bukunmi Oyewole, August 26, 2022



Sweet potatoes harvested from Mr. Seun Opadare's home garden in Ibadan, Nigeria, one of the crops he shares with the three neighbours in his compound. He believes food should move through the household and reach others, saying "once hunger is removed from a man's problem, most of the problem is solved." Photo credit: Bukunmi Oyewole, August 26, 2022

About the author

Bukunmi Oyewole is a photographer whose art primarily spotlights present-day realities in Africa, offering a glimpse into the diverse landscapes, cultures, and stories of the continent. Through his lens, Bukunmi keeps creating a visual narrative that allows future generations to experience and appreciate Africa's rich lifestyle, even from across the globe. Also, his work explores the themes that revolve around climate change, using his art to bring attention to climate change issues and to create awareness and engagement with the public about the impacts of climate change.

INDIGENOUS DEMANDS TOOK CENTER STAGE AT COP30, BUT DECISIONS WERE MADE BEHIND CLOSED DOORS

BY NATALIA FIGUEREDO



Indigenous representatives from across Latin America walk hand in hand during the People's Climate March at COP30 in Belém, Pará, Brazil. Photo: Natalia Figueredo, November 2025.

In November 2025, the United Nations Framework Convention on Climate Change (UNFCCC) convened its 30th Conference of the Parties (COP30) in Belém, in the Brazilian Amazon. Expectations were especially high. The summit marked a decade since the adoption of the Paris Agreement and was the first UN climate conference ever held in the Amazon, a region that has come to embody both the urgency of the climate crisis and the human and ecological costs of inaction, particularly for Indigenous communities who have held sovereignty over these lands for generations. Against this backdrop, COP30 was widely seen as a moment for delivery: a test of whether governments could move beyond pledges and reaffirm, rather than retreat from, the commitments already on the table.

Hosting the conference in the Amazon was widely interpreted by environmental organizations, Indigenous movements, and civil society as more than a logistical choice. It raised expectations that climate negotiations could move beyond abstract targets and technical language, reconnecting global commitments to concrete issues such as forest protection, environmental racism, Indigenous rights, and the responsibility of historically high-emitting countries to finance a just transition away from fossil fuels toward renewable energy systems.

According to Brazil's Ministry of Indigenous Peoples, Indigenous participation at COP30 in Belém brought together representatives from 385 Indigenous communities worldwide—including 312 from Brazil and 73 from 42 other countries—marking an unprecedented level of global Indigenous representation at a climate summit. From across Latin America, Indigenous participation included activists and leaders from peoples such as the Zapotec (Mexico), Maya (Guatemala), Guna (Panama), Kichwa and Achuar (Ecuador and Peru), and Tikuna (Colombia, Peru, and Brazil), alongside delegates from other Amazonian nations. One of the most emblematic journeys was the Yaku Mama Amazon Flotilla, in which around 60 Indigenous representatives traveled some 3,000 kilometers by river from Coca, Ecuador, through the Amazon basin to Belém, carrying collective demands for climate justice and the recognition of Indigenous territorial rights.

GLOBAL INDIGENOUS NEWS

The conference brought together roughly 5,000 Indigenous participants, the largest Indigenous presence ever recorded at a UN climate summit. Of these, about 900 were accredited to access the Blue Zone, the restricted area where government delegations negotiate and make formal decisions. The majority participated through the Green Zone, the public area of the conference dedicated to side events, assemblies, and civil society activities. It was there that Indigenous leaders gathered in significant numbers to organize, coordinate positions, and debate shared priorities across regions. The separation revealed a central contradiction of the summit. Indigenous peoples were visible and politically active, but largely absent from the spaces where binding climate decisions were negotiated.

During the two weeks of the conference, Indigenous Peoples called for the legal protection of their territories, framing land security as essential to confronting the accelerating impacts of climate change and environmental destruction. They demanded effective participation in climate negotiations and called for an end to extractive activities such as mining, oil, and logging on Indigenous lands, which continue to drive deforestation, pollution, and violence. Indigenous leaders also emphasized the recognition of ancestral knowledge as a basis for climate action, pointing to land management practices that have sustained forests, rivers, and biodiversity over generations. Additional demands included direct access to climate finance and the enforcement of Free, Prior, and Informed Consent, a legal safeguard requiring Indigenous approval before projects affecting their territories are authorized.

The conference closed with the delivery of a joint declaration to COP30 President André Corrêa do Lago and other authorities, setting out 15 points for consideration in the formal negotiations.



Women protesters hold a banner denouncing the criminalization of Indigenous peoples during a demonstration at COP30 in Belém, Pará, Brazil. Photo credit: Natalia Figueredo, November 2025.

That visibility, however, ran alongside negotiations still dominated by intergovernmental bargaining over emissions targets, carbon markets, and disputed financing mechanisms. Despite sustained efforts to engage officials through declarations and public advocacy, proposals developed by civil society rarely reached the spaces where binding decisions were taken. Unfortunately, there were no mechanisms to ensure that it translated into concrete decisions with in the negotiations.



Civil society activists and representatives of social movements gather in a plenary session at the People's Summit during COP30, hosted at the Federal University of Pará in Belém, Brazil. Photo credit: Natalia Figueredo, November 2025.



A protester displays a sign reading "They stole our land. Now they want to steal our future" during the People's Climate March at COP30 in Belém, Pará, Brazil. Photo credit: Natalia Figueredo, November 2025.

Against this backdrop, Indigenous Peoples and civil society took their demands to the streets of Belém, using public demonstrations to assert rights, defend territories, and press for climate justice. On November 11, hundreds of Indigenous land defenders from the Amazon, including leaders from the Tapajós River region in Pará, confronted security at the main entrance of the COP venue, rejecting climate solutions advanced without their participation. Days later, an estimated 70,000 people joined the Global Climate March marking the return of visible mass protest. The mobilization continued on November 17 with the Global Indigenous Climate March, marking Indigenous Peoples' Day, reinforcing calls for climate responses grounded in territorial realities and community-led solutions.

After two weeks, the 30th United Nations Climate Change Conference ended without delivering on its central expectation of a long-awaited roadmap to reduce global dependence on fossil fuels. For Indigenous organizations and civil society groups, the measures included in the so-called Belém Package, framed around technical support, fell short of core demands for climate finance and enforceable protections for Indigenous territories and rights.

But outside the UN process, some governments signaled alternative pathways. Colombia announced plans to host, together with the Netherlands, an international conference focused on moving beyond fossil fuels, aimed at advancing a rapid, just, and fully financed transition.

With Turkey and Australia set to jointly preside over COP30, pressure is mounting for a process that moves beyond procedural consensus and delivers concrete results. If COP30 left a defining legacy, it was the historic participation of Indigenous Peoples and the scale of civil society mobilization, which brought clearly articulated demands and proposals to Belém. A central challenge going forward will be ensuring the meaningful participation of these actors in coming conferences. The question for future negotiations is no longer whether Indigenous leadership matters, but whether governments are willing to transfer power and align climate governance with the realities unfolding in the territories most exposed to the crisis.

About the author

Natalia Figueredo is a Latino-Amazonian architect, urbanist, and researcher from Brazil based in Barcelona. She is currently a PhD candidate in Anthropology at the University of Barcelona, where she researches urban development in Amazonian territories. She is also a member of the Observatory of Urban Conflict Anthropology (OACU) and collaborates with the European project Sonic Street Technologies, researching sound technologies in urban Amazonia. Her work engages research and communication through artistic practice, sound experimentation, writing, and lecturing, operating at the intersection of urbanism, cultural studies, and urban anthropology. Drawing from her Amazonian roots and global dialogues, her research focuses on critical ecologies, decolonial thought, and feminisms, challenging dominant ideas of territory, knowledge, and power.

GLOBAL INDIGENOUS NEWS

WHEN SALMON SAVE

BY VINCENT MONIZ

An atmospheric river is not a metaphor. It's an actual river flowing through the sky. A corridor of moisture streaming off from the Pacific Ocean. Sometimes a thousand miles long. Sometimes carrying as much water vapor as the Mississippi River carries. When one hit Washington state in December 2025, all that vapor became rain. Heavy rain.

More than nine million acre-feet of water fell on flooded areas for 10 days, according to KUOW, a Seattle public radio station. One weather station at Mount Rainier measured 21 inches, the Associated Press reported. Governor Bob Ferguson declared a state of emergency. One person died, and 100,000 people were evacuated.

But the roads held. The bridges stood. Water moved where it needed to move. The reason goes back two decades to something Washington didn't want to do.

In 2001, the Tulalip Tribes, Muckleshoot Indian Tribe, Puyallup Tribe of Indians, and Skokomish Indian Tribe were among 21 Native Nations that sued the state over salmon habitat. Court documents show that more than 1,000 culverts under state roads blocked fish from reaching spawning grounds. Federal District Judge Ricardo Martinez ruled in 2013 that this violated 1850s treaty rights. Washington appealed twice. The Supreme Court deadlocked in 2018, and the lower court ruling stood, according to Oregon Public Broadcasting. So the state started replacing narrow concrete pipes with wider bridges that let entire streams flow naturally.

Indigenous peoples of the Pacific Northwest have managed salmon for 10,000 years based on understanding how watersheds actually work. Traditional ecological knowledge recognizes you can't separate one part of a system from another. When state agencies started replacing culverts, they had to stop controlling water and start accommodating it.

The Indigenous Nations didn't sue to prepare for climate change. They sued to protect salmon. To protect their treaty rights. To protect their ability to feed their families. But protecting salmon meant protecting watersheds. And protecting watersheds meant understanding how water moves through landscapes.

Those structures turned out to handle a lot more water than anyone planned for. When water flows over bridges during floods, it does less damage than water backing up behind inadequate culverts. Water that spreads naturally recedes faster. Roads stay intact. *The Seattle Times* editorial board called this an "often-overlooked" advantage in 2023.

Washington State Climatologist Guillaume Mauger told KUOW in December 2025 that floods will become larger and more frequent. Those sky rivers are getting stronger. More water. More often. Washington's new stream crossings were built for that. When you build for fish passage, you build for natural systems. What worked for salmon worked for the winter deluge.

The pattern shows up elsewhere. The 1974 Boldt Decision guaranteed Native Nations half of Washington's salmon harvest. Non-Native fishers predicted economic disaster. The co-management framework that emerged is now studied internationally. In California, state agencies spent a century suppressing fire. Then the forests started burning in ways that couldn't be stopped. Now those same agencies are learning traditional burning practices from Indigenous Nations. Courts forced Washington to listen to salmon. Catastrophe forced California to listen to fire. The knowledge was there the whole time.

The Washington State Department of Transportation has rebuilt 319 fish passages in 25 years, according to federal court documents. The state legislature originally appropriated $3.8 billion to replace the culverts. Cascade PBS, a Seattle public broadcasting station, reported that the culvert replacement cost has climbed to $7.8 billion.

NASA reported the atmospheric river stretched nearly 7,000 miles from the Philippines. The Skagit and Snohomish Rivers, two major rivers north of Seattle, reached their highest recorded flood levels. Multiple levees failed. Yet the upgraded stream crossings held. The atmospheric rivers will keep coming. The climate will keep changing. What's built now matters. The bigger question is whether institutions will listen to people who've lived with this land for 10,000 years before the next crisis forces their hand.

Washington owes those 21 Native Nations. Not just for protecting salmon but for keeping the fight going for two decades through appeals, delays, and arguments about cost. Sometimes the right thing to do turns out to be exactly what saves you.

About the author

Vincent Moniz is an enrolled citizen of the Mandan Hidatsa Arikara Nation and a NuÉta Tribal member who grew up in the Little Earth of United Tribes housing projects in South Minneapolis. He has worked as a professional writer for more than three decades, including as Senior Producer of the PBS national ICT Newscast. His work spans narrative journalism, poetry, and creative nonfiction, and has received multiple awards.

WHEN THE LAND REMEMBERS: INDIGENOUS ECOLOGIES AGAINST EXTRACTIVE FUTURES

BY ISRAEL TEMMIE

In the face of climate collapse and accelerated extractive development, Indigenous relational worldviews—rooted in the understanding that people and environment are interdependent—are too often dismissed as symbolic or outdated rather than recognized as powerful, future-oriented practices of care, governance, and resistance. Yet across continents, Indigenous communities are showing that ecological care, resilience, and political resistance grow out of lived, land-based knowledge that rejects extractive ideas of disposability and ownership.

By "extractive," I am referring not only to mining, oil, gas, logging, and agribusiness, but to a broader worldview that treats land, water, and even people as resources to be used up for profit. Extractive logic assumes that the Earth exists to be owned, divided, and depleted, with little regard for long-term ecological balance or the communities that depend on it. Under this model, value is measured by what can be taken, rather than what can be sustained.

Indigenous land stewardship is not a passive conservation strategy. It is an embodied practice of ecological intelligence honed over generations. Research shows that Indigenous knowledge systems contribute directly to climate adaptation and resilience, using weather prediction, ecological indicators, and seasonal calendars to anticipate and respond to environmental change, from predicting monsoon patterns to interpreting animal behavior as climate signals. These practices, once dismissed as "traditional lore," are now understood as sophisticated forms of environmental monitoring deeply embedded in communities' survival strategies.

Across landscapes from Africa to the Arctic, Indigenous ecological practices offer practical models for resilience. In Australia, Aboriginal communities such as the Martu and Noongar peoples have long practiced cultural burning, intentional low-intensity fire management used to reduce fuel loads, promote biodiversity, and limit the severity of wildfires. This approach is now increasingly recognized by researchers as a form of climate-resilient landscape stewardship. In West Africa, Indigenous farming communities in Mali and Burkina Faso, including Mossi and Dogon farmers, use agroforestry systems in which food crops grow alongside native trees, reducing soil erosion, restoring soil fertility, and improving both climate adaptation and long-term food security.

Far from being isolated curiosities, these practices strengthen sustained political resistance to extractive pressures. In Ecuador, Indigenous women from Kichwa, Shuar, and Waorani nations, organized under **Mujeres Amazónicas**, have confronted government oil concessions that threatened their lands. Kichwa leader Nina Gualinga has emphasized that defending Indigenous territories is essential to the survival of her community, explaining that oil and extractive industries threaten not only land but "every aspect of our lives" and the future of children and their communities in the Amazon. This group's activism includes presenting comprehensive demands to national leaders aimed at protecting land rights, climate stability, and gender equity, yet they remain unmet, a testament to how extractive interests continue to overshadow Indigenous agency.

Similarly, grassroots organizations like the Indigenous Environmental Network in the so-called "United States" have become major mobilizers in pipeline resistance movements, foregrounding environmental protection as spiritual and ecological activism rather than abstract policy debates. Another community-led initiative in Kenya comes from the Mijikenda peoples, whose protection of the sacred Kaya forests integrates spiritual practice, biodiversity conservation, and local stewardship to safeguard watersheds. This approach contrasts sharply with top-down conservation models that have historically displaced Indigenous communities in the name of so-called "fortress conservation."

Experts familiar with Indigenous land struggles emphasize the deeply interconnected nature of ecological knowledge and political sovereignty. "When land is treated as sacred and relational rather than as property or a carbon offset, communities are better positioned to build resilience and challenge extractive frameworks," said Kyle Powys Whyte, a Potawatomi climate justice scholar, highlighting that Indigenous stewardship is inseparable from collective governance and long-term ecosystem health.

GLOBAL INDIGENOUS NEWS

Indeed, protecting Indigenous land rights is not merely symbolic; it is ecologically strategic. A global review finds that Indigenous-managed lands hold disproportionate levels of biodiversity and remain among the most intact ecosystems on Earth, a reality rooted in systemic stewardship practices that have endured despite centuries of colonial displacement and resource exploitation.

At the same time, Indigenous worldviews bring an ethical lens to ecological governance that challenges the core assumptions of Western environmentalism. Rather than seeing nature as a resource to be quantified and managed, many Indigenous frameworks view the land as kin, a living entity with which humans are in a reciprocal relationship. As Chadian Indigenous rights activist Hindou Oumarou Ibrahim explains, "For indigenous peoples, there is no difference between the environment and life. We are connected to nature, we find our resources in nature, we protect it," underscoring that Indigenous stewardship emerges from relationships of reciprocity rather than extraction. This relational worldview directly contests dominant climate solutions that prioritize market mechanisms over community sovereignty. Indigenous leaders have repeatedly called for climate strategies that reject carbon markets and other "false solutions" that privatize communal resources and sideline local governance.

The stakes of this epistemological divide are visceral. Indigenous communities, despite shouldering a fraction of global emissions, bear the brunt of climate impacts and environmental degradation. Last year alone, Indigenous peoples accounted for a disproportionate share of lethal violence against land and environmental defenders worldwide, with roughly 43 % of those killed coming from Indigenous communities despite comprising only about 6 % of the global population, according to a Global Witness report on defender killings, an indicator that ecological resistance is not just environmental but deeply political.

Yet, in communities from the Arctic tundra to the Philippines' upland forests, Indigenous groups are revitalizing ancestral practices to regenerate degraded ecosystems and secure water, soil, and life systems. In the Philippines, youth networks are re-establishing sacred grove protection and traditional forestry techniques to slow erosion and recharge watersheds, actions that generate climate resilience at the local scale while challenging extractive land use.

Ultimately, Indigenous ecological practices compel a rethinking of what environmentalism and climate action look like in a world shaped by colonial extraction. They remind us that ecosystems do not need to be saved from Indigenous peoples; they need to be defended with them. As Kyle Powys Whyte reflects, "When you listen to the land through Indigenous knowledge, you begin to see that resilience is less about mitigation targets and more about reciprocal care, cultural continuity, and rights-based stewardship."

To chart equitable futures in the face of climate collapse, environmental movements must shift from symbolic inclusion to substantive power-sharing, placing Indigenous voices, knowledge, and governance at the heart of global climate strategies.



A Kichwa Indigenous elder tends to a young plant during a land-based planting practice at the edge of the Napo River, in the Ecuadorian Amazon, reflecting traditions of care, stewardship, and intergenerational ecological knowledge. Photo credit: Eri'ife Micheal, January 20, 2026.

About the author

Israel Temmie is a freelance writer and researcher exploring power, land, and cultural memory. His work centers on Indigenous and frontline communities' responses to climate, extraction, and social change. You can view his portfolio at https://mymainportfolio.carrd.co.



Photo: Natalia Figueredo, November 2025.

EARTH RISING FOUNDATION

This edition of *The Magazine* was funded thanks to a generous grant received from Earth Rising Foundation through their Indigenous Voices Grant Program.

DONATE TO SUPPORT OUR MISSION

VISIT OUR ONLINE EDITION

As a non-profit organization (501c3 in the "U.S."), your donations go directly towards supporting our small but growing organization, and its mission to produce high-quality news that is free and accessible to Indigenous communities and their allies around the world. Please consider contributing today at CrushingColonialism.org/donate.