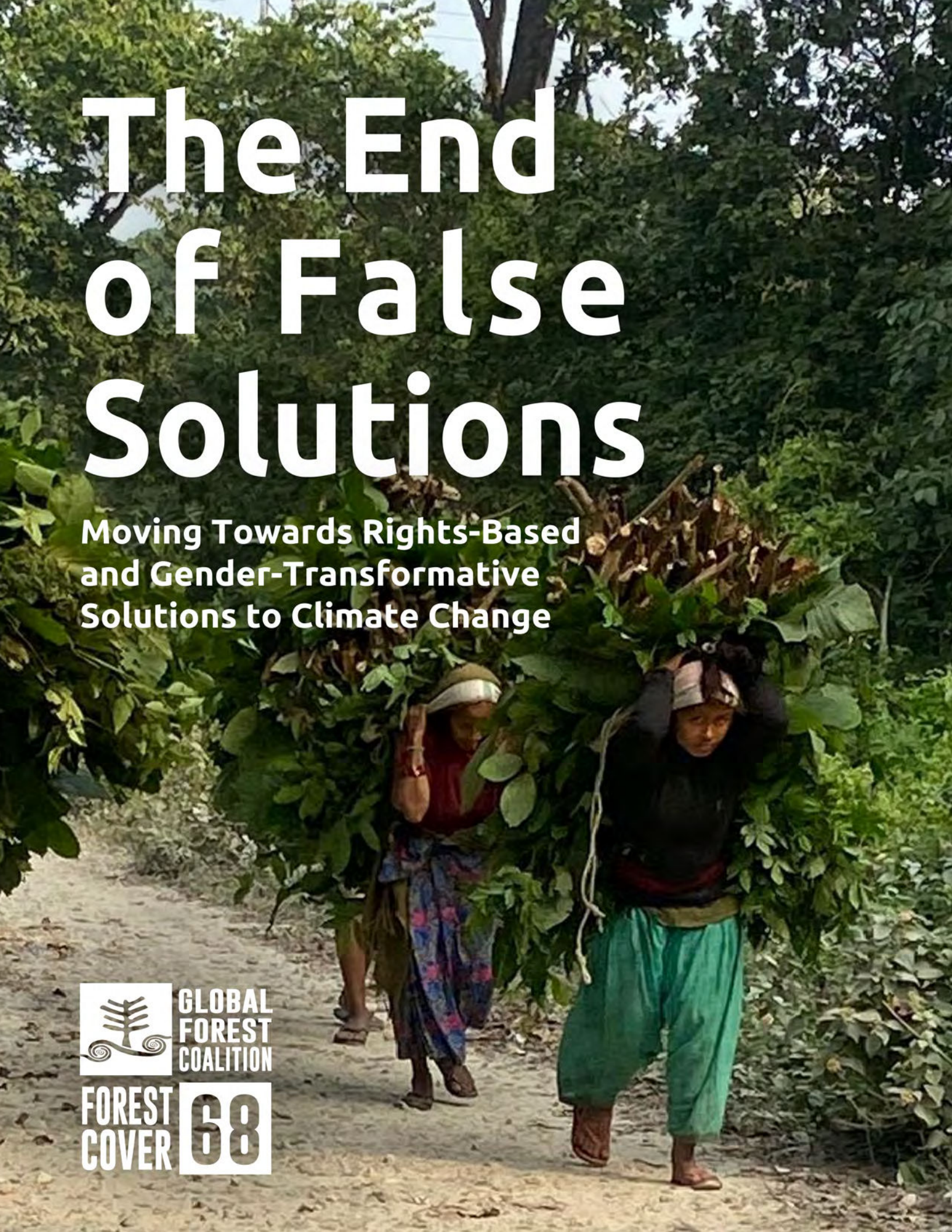

The End of False Solutions

Moving Towards Rights-Based and Gender-Transformative Solutions to Climate Change

GLOBAL FOREST COALITION

FOREST COVER 68

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About the Global Forest Coalition (GFC):

We are an international coalition of 124 NGOs and Indigenous Peoples' Organizations from 72 countries, defending social justice and the rights of forest peoples in forest policies. GFC carries out joint advocacy campaigns on the need to respect the rights, roles and needs of Indigenous Peoples, women and local communities in forest conservation and the need to address the underlying causes of forest loss.

Welcome to the 68th issue of Forest Cover,

a series of reports and other publications by the Global Forest Coalition connecting international forest policy to local views and experiences. To receive Forest Cover by email please **join our mailing list.**

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Photo: Bhola Bhattarai, NAFAN, Nepal

Background Image: Commercial tree plantations in South Africa. Photo: Elsmarie Owen

Acknowlegments

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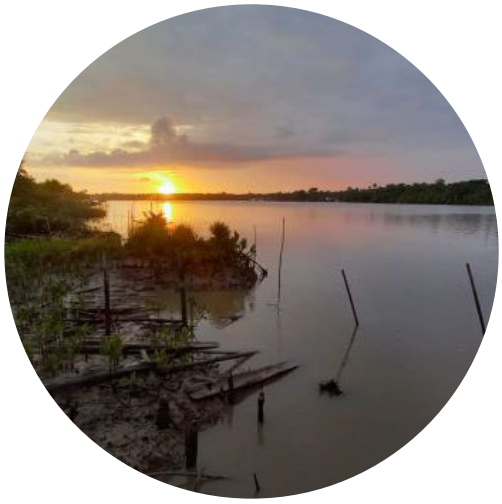
This publication has been produced with support from Women Engage for a Common Future (WECF) through the Green Livelihoods Alliance (GLA), financed by the Dutch Ministry of Foreign Affairs; the Swedish Society for Nature Conservation (SSNC); the Heinrich Boell Foundation (HBF); Bread for the World; the Environmental Paper Network; and the Urgent Action Fund. The contents of this publication are the sole responsibility of the Global Forest Coalition and can in no way be taken to reflect the views of donors.

Climate Colonialism and False Solutions

The Difficult Journey to Achieving Climate Justice



Forest Cover 68 exposes how the developed nations and northern corporations are shifting the burden of emissions reductions to vulnerable communities and their territories, using the climate crisis as a means for profiteering, dumping false solutions on the Global South and inflicting devastating consequences for frontline communities.

By Souparna Lahiri (GFC, India), with Maureen Santos (FASE, Brazil) and Kwami Kpondzo (GFC, Togo)

Intense heat waves, droughts, incessant rains and flooding, destructive typhoons, and forest-razing wildfires are invariable signs our planet is on the verge of breaching its tipping point: a global temperature increase of 1.5°C—the code red for humanity and living beings on Mother Earth. We are already witnessing and suffering from the devastating and irreversible impacts of a 0.8 °C to 1.1°C temperature rise.

The remedial actions are loud and clear; we must drastically reduce emissions. With fossil fuel emissions needing to peak by 2025, the Intergovernmental Panel on Climate Change (IPCC) has recommended a reduction in greenhouse gas emissions of 43% by 2030. Based on the pledges and commitments made by countries in the Nationally Determined Contributions (NDCs), not only are we going to overshoot 1.5°C, but current emission pathways point to a rise of over 3°C within the century.

While it seems the developed countries, apparently oblivious to this catastrophe and historically responsible for the crisis, are continuing business as usual, developing countries are bearing the brunt of climate change impacts to which they have contributed the least. The frontline communities—Indigenous Peoples and local communities, women, children, youth, farmers, and peasants—are fighting a battle to survive and protect their territories, food sovereignty, and livelihoods. Women, children, the elderly and gender-diverse people are disproportionately negatively affected by this global scenario of inequality and climate colonialism.

For over a decade, the developed countries have refused to implement obligations pledged in 2009 to provide US$100 billion a year towards climate adaptation and mitigation, let alone the reparations that developing countries and climate justice movements are demanding. Instead, countries and companies in the Global North systematically subvert global climate policy and multilateral agreements, infusing a false narrative and climate discourse that begins with climate denial and ends with dishing out false solutions. Global climate policy has been captured by corporations. Led by fossil fuel corporations, agribusiness, their financiers, and the big technology giants, they are using all their might to resist the systemic and structural changes required to overcome the climate crisis. They are drowning out the voices of the Global South and shifting the burden of emissions reductions to vulnerable communities and their territories—the Indigenous homelands, forests, pastures, fertile farmlands, and commons that are the lifelines of Global South communities.

At COP26 in Glasgow, with the world reeling under the COVID-19 pandemic, the Global North not only refused

Photo: Federation of Organs for Social and Educational Assistance (FASE), Brazil

to contribute and support calls for a dedicated facility to finance loss and damage caused by climate change, they outright rejected an immediate halt to fossil fuel production including coal burning. On the other hand, the UK presidency, backed by the same fossil fuel corporations and carbon cowboys, forced an agreement to operationalise an international carbon market and unleash false solutions that are not based on science, will not lead to emission reductions, and will further aggravate the climate crisis.

Why? Because the agreements reached in Glasgow on the market-based solutions under Articles 6.2 and 6.4 of the Paris Agreement do not provide real climate mitigation through international cooperation. They peddle a false solution pathway where the largest emitters can essentially buy carbon credits delivered from the climate actions and resilience of vulnerable countries and their communities in the Global South to offset their continuing emissions. In plain terms, countries in the Global North will be able to compensate for their over-consumption and production and the resultant emissions from their combustion-based economies through offsetting and paying for low-cost climate action in the Global South.

Article 6.2 refers to the trading of internationally transferred mitigation options (ITMOs) between two countries without adhering to environmental integrity, human rights obligations or any global rule-setting to regulate such trading. Article 6.4, originally referred to as a sustainable development mechanism, has now been transformed into a new avatar of the much-maligned and infamous clean development mechanism (CDM) which allows for forests and other ecosystems to be traded on the global market. Both these articles defy the very spirit of an otherwise weak Paris Agreement.

What does this translate into? The fossil fuel corporations buying out (read: grabbing) millions of hectares of land in Africa, Asia and South America under the guise of reforestation or reducing deforestation. What they are actually doing is investing in commercial monoculture tree plantations and other distorted REDD+ and forest carbon offset projects, fraudulently claiming rights to the carbon sequestered or "enhanced carbon sinks." Through this, they falsely claim to be well on their way to decarbonising their operations and achieving Net Zero emissions (not Real Zero). The scientific evidence shows this is an utterly false claim based on equating carbon from geological reservoirs with that of biological reservoirs. Emissions reduction and emissions absorption or removal do not have the same climate consequences and impacts.

These false solutions are fast moving towards a narrative promoting climate colonialism whereby Northern governments and corporations make inroads into and pillage the inviolate and intact ecosystems, homelands, and territories of Indigenous Peoples and forest communities. As this edition's article examining the IPCC's reports on mitigation and adaptation argues, current climate modelling still lacks a framework that recognises the traditional knowledge, wisdom, and role of Indigenous Peoples and local communities, nor their rights and practices of conservation and protection of nature and ecosystems. This has inevitably led to conflicts and will cause more, violating the rights of Indigenous Peoples and local communities, stoking violence against women and children, and turning natural resources into globally traded commodities. It reinforces all the dominant traits of colonialism, where social cohesion is destroyed, creating conflict and divisions between communities, races, colours and genders.

False climate action through offsets and carbon trading—as exposed in this issue's reports on projects in Colombia and Uganda—is not only the antithesis of a real climate solution and symbiotic relationship between people, communities, and nature, but it ignores the use of traditional knowledge in conservation and protection of nature and its ecosystems. It undermines the role of Indigenous Peoples and local communities, especially women, and their traditional knowledge, wisdom, and practices that for centuries have kept this planet habitable and liveable.

It challenges the very notion of human well-being.

However, the move toward climate colonialism through false solutions is not unchallenged. Climate justice movements have long been demanding reparations for the historical responsibility of the Global North in creating the climate crisis; and the voices are getting louder. The Global South is calling on the North to take responsibility and contribute its fair share to support the reconstruction after the loss and damage suffered by frontline communities.

As the effects of climate change worsen and the implications of false solutions are exposed, the struggles of frontline communities are getting stronger and sharper. They are not only fighting false solutions and their impacts, but they are also becoming more resilient and driving their own climate solutions—the real solutions.

In this 68th issue of Forest Cover, we unravel some of the false solutions to climate change, such as carbon offsetting and voluntary REDD+ schemes and reforestation through monocultures and their impacts on communities, women and their dependents and lands. We also shine a light on how ill-considered development policies can lead to failed climate "solutions," and failures at the international level to take a rights-based and gender-responsive approach to climate change adaptations and mitigation that recognises the traditional knowledge, wisdom and role of Indigenous Peoples and local communities.

A report from Uganda reveals how the Trees for Global Benefit project is imposing food insecurity on communities who have signed over scarce land for periods of up to 25 years to grow trees to sequester carbon sold as credits to mainly European companies. The project does not address poverty or improvement in land tenure or women's access to land and resources and binds communities in unilateral, one-sided contracts.

Photo: Federation of Organs for Social and Educational Assistance (FASE), Brazil

From Latin America, an article on REDD+ projects in Colombia also questions the false notion of reducing emission through carbon offsetting projects. It raises important issues related to the lack of information and knowledge of these schemes among impacted communities and the pittance they get from the international funding such projects receive. In turn, REDD+ projects deepen injustices while permitting polluters to continue their planet-destroying activities.

A report from Nepal examines how a small developing country (Nepal qualifies as a least developed country) can fall prey to false solutions in efforts to replace fossil fuels and provide energy access to its citizens. The government is seeking to industrialise bioenergy production by burning forests and forest biomass, with severe and long-term consequences for forests, biodiversity, and communities dependent on forests and forest products.

Our report from South Africa exposes the dangers of another major climate initiative falling victim to corporate capture, with the threat of commercial monoculture tree plantations being established under the guise of the African Forest Restoration Initiative (AFR100), which is supposed to facilitate the halting and reversal of degradation of ecosystems across the continent. The article highlights how these same commercial tree plantations have driven land and soil degradation over the past 40 years, bringing with them adverse impacts on local communities, especially women and girls.

In a critical look at the IPCC reports on adaptation and mitigation, we argue that climate modelling continues to miss a framework that recognises the traditional knowledge, wisdom and role of Indigenous Peoples and local communities. It argues that climate science must take a rights-based and gender-responsive approach if we are to have any hope of addressing climate change.

It is armed with this knowledge that we approach yet another COP. COP27, to be held in Egypt, is increasingly being referred to as an "African COP". Over the past year, the continent has suffered devastating floods in South Africa, Mozambique, and Uganda that

Photo: Federation of Organs for Social and Educational Assistance (FASE), Brazil

have killed hundreds and displaced tens of thousands. Meanwhile, the Horn of Africa is in its fourth year of drought, with over 18 million people suffering from food insecurity.

Africa, which contributes less than 4% of global greenhouse gas emissions, has been ravaged by 500 years of colonialism, extractivism, debt, and dispossession. Its development pathway has often been imposed by the Global North and transnational corporations. Fossil fuel colonialism through coal, oil, and gas extraction has devastated communities, inflicted human rights abuses, and destroyed local ecosystems while fuelling racism and gender violence.

While communities in Gabon, Mozambique, Nigeria, the Republic of Congo, South Africa, Sudan and others are fighting against the world's biggest polluters, today, they are also subjected to carbon colonialism. Everything they had conserved, protected, and nurtured for centuries—from forests, pastures, grasslands and farmlands to deserts in the Sahel—are colonised and carved out to implement the false climate solutions imposed by the Global North.

The conflict-ridden REDD+ projects, extensive monoculture plantations under the AFR100, the tree plantations to grow timber and bioenergy crops with support from the Green Climate Fund and private equity firms like the Arbaro Fund, millions of hectares grabbed by fossil fuel corporations to implement their net zero commitments, and a proliferation of CDM and forest carbon offsets—all of this looks like the opening of the floodgates of false solutions. The recent announcement by Gabon that it will open up its forests to the voluntary carbon market and mobilise 90 million credits before COP27 shows that the developed countries and their corporate allies are driving and reinforcing a development pathway in Africa that has proven to be a failure and the root cause of many crises, including the climate crisis. Nature, natural resources, Indigenous Peoples and local communities, women, and peasants are the sacrificial lambs.

But people in Africa, the climate justice movements, women's movements and Indigenous communities have a different view: they want to decolonise the economy and development model. They want to move away from the Northern-dominated models of economic growth. And they are demanding enabling conditions for a just transition to renewable energy through an equitable phase-out of fossil fuels. Their immediate priorities are public health, economic justice, food sovereignty, and agroecology.

In a recent statement, the African Climate Justice Collective demanded rich countries repay climate debts, fulfil climate finance obligations, reduce emissions to zero and stop false solutions. Northern corporations are using the climate crisis as a means for profiteering, dumping false solutions on the African continent and inflicting devastating consequences for frontline communities.

A climate COP has its own dynamics where global political issues and corporate lobbying often cloud the negotiating table, and COP27 may not tread a much different path. But its corridors will reverberate with the demands of the climate justice movement. Knowing that the UN climate talks and other UN multilateral platforms are dominated by rich countries and corporations, COPs may not be the only focus for climate campaigners and activists. But they can provide momentum to build local, regional, and global solidarity and action to force an overhaul of the multilateral system to address the climate crisis, inequity, and injustice, and build people's power for real change. It is our role to ensure the world is not blinded and deceived by the false solutions and empty promises trumpeted at these events. We need real action and real solutions.

This issue of Forest Cover reveals the size of the pitfalls of the official and corporate proposals and the importance of being informed. We must protect Mother Earth and achieve climate justice and equity by defending the rights of our communities, women, peasants, and workers to choose and drive their own climate solutions for real zero.

Hiding in Plain Sight

A Critical Look at the IPCC Reports from a Gender and Rights Perspective

By Coraina de la Plaza and Souparna Lahiri, Global Forest Coalition

The Intergovernmental Panel on Climate Change (IPCC)'s latest reports on adaptation and mitigation show that the world is at a crossroads. Atmospheric carbon dioxide levels reached over 420 ppm in 2022, well past the 350 ppm typically considered "safe". CO2 levels since 2000 are rising by about 20ppm per decade—ten times faster than during the past 800,000 years, and we are already seeing the devastating impacts of a 1.1°C temperature rise.

In 2019, approximately 34% of total net anthropogenic greenhouse gas emissions came from the energy supply sector; 24% from industry; 22% from agriculture, forestry, and other land use; 15% from transport; and 6% from buildings. To limit warming to 1.5°C and avoid the worst climate impacts, global greenhouse gas emissions must peak before 2025 and be reduced by 43% by 2030.

The IPCC's reports help us understand the various dimensions of climate change and contextualise the many intertwined challenges we face. And while the need for climate action is urgent, understanding *the context* for immediate action is paramount. Climate change arises from the growing inequality and wealth accumulation that capitalism fosters and feeds on. As the wealthy continue to over-consume and grab diminishing resources, contributing to increasing emissions, the world's most vulnerable groups, like Indigenous Peoples, women in all their diversity[1], and frontline communities are bearing the worst impacts of this crisis.

We need rapid transformations across all systems. Yet current climate policies, pledges, and promises made by governments and corporations will not take us to where we need to be.

The Proliferation of False Solutions to the Climate Crisis

False solutions, including carbon markets and offsets, net zero pledges, large-scale monoculture tree plantations, bioenergy with carbon capture and storage (BECCS), and 'smart' agriculture, among others, continue to bloom. Not only do these lucrative false solutions fail to address the climate crisis, but they also perpetuate and create new forms of inequality, including gender inequality. For instance, BECCS relies on large-scale monoculture tree plantations made of fast-growing and often invasive species that cause the conversion of forest and non-forest lands to plantations. These plantations are often used as part of afforestation and reforestation projects for bioenergy, as well as other extractive industries like pulp and paper. They frequently lead to a multitude of interconnected adverse impacts, including: land grabbing; loss of biodiversity and wildlife habitats; reduced overall ecological resilience; loss of traditional medicine and knowledge; increased labour burden; short-term and limited employment opportunities; encroachment on other ecosystems; pollution of freshwater resources due to the use of agrochemicals; and increased fire hazards and pests.

The IPCC report on adaptation acknowledges these impacts, many with 'very high confidence', noting that plantations or other large-scale land use conversion could result in maladaptation and malmitigation, including climate injustice, as they have disproportionate impacts on marginalised and vulnerable groups

1 When we refer to 'women' this should be understood as 'women in all their diversity', recognising the diverse intersecting identities which influence people's experience of the world such as age, ethnicity, sexuality, class, geographical location, religion, disability, etc.

Photo: Federation of Organs for Social and Educational Assistance (FASE), Brazil

including Indigenous Peoples and women. The gendered impacts in and around these plantations have also been widely reported, including increased sexual harassment and violence against women, damage to already insecure land tenure arrangements, food insecurity, loss of unique traditional and local knowledge, and reinforcement of the use of bioenergy with the associated harmful impacts on health and fertility, as well as other health problems associated with the use of agrochemicals.

However, despite all the associated risks and impacts, the current IPCC modelling approaches to restricting global temperature rises to below 2°C and 1.5°C of pre-industrial levels are still largely based on interventions in the land sector on a massive scale. Schemes like BECCS still figure too prominently in some mitigation pathways despite the IPCC acknowledging the potential risks. This is partly because the framework for modelling pathways to 1.5°C is overly focused on emission reductions alone. We need models that help conserve and enhance natural sinks, giving primacy to food sovereignty and security and securing the rights and access to the land of Indigenous Peoples, local communities, and women.

Real Climate Solutions

There is growing evidence that much of the required carbon removals could be achieved by conserving natural sinks and building ecosystem resilience through improved biodiversity protection. Restoring ecosystem integrity is fundamental to robust climate action in land and forests and should no longer be thought of as merely a co-benefit of climate action. According to the report 'Missing Pathways' to 1.5°C by the Climate Land Ambition and Rights Alliance (CLARA), there is the potential to restore one-quarter of the world's natural forests and protect them along with primary forests, leading to half of the global forest cover representing intact ecosystems.

Enhancing and protecting terrestrial ecosystems and natural sinks through better land governance and management and transformative agricultural practices under the stewardship of Indigenous Peoples, local communities, and women represents a far more equitable and cost-effective way of addressing our climate crisis. But even more importantly, it is also a more just and equitable pathway to achieving climate mitigation targets than other carbon capture and storage measures such as BECCS.

Indigenous Peoples' lands account for 37% of all remaining natural lands on Earth. At least 22% of the total carbon stored in tropical and subtropical forests lies in collectively managed lands, a third of which is found in areas where Indigenous Peoples and local communities lack legal recognition. Securing collective tenure rights for Indigenous Peoples and local communities results in lower rates of deforestation and soil degradation. Women are also traditional leaders in the conservation and protection of the biodiversity and ecosystem functions upon which these communities sustain themselves. Doubling the area of community-titled land and protecting and restoring degraded primary forests whilst ensuring the natural regeneration of recently deforested areas, including through the responsible use of managed forests to restore biodiversity and ecosystem function, would result in 6.1 Gt CO2eq per year in avoided emissions and 8.7 Gt CO2eq per year in carbon sequestered by 2050. Amazonian Indigenous territories alone store 102 Gt CO2, about a third of the Amazon region's above-ground carbon sinks (on roughly 30% of the land area).

Agroecological practices reflect the workings of natural ecosystems and aspects of those ecosystems that are essential to their functioning. We now have extensive evidence that agroecological systems are superior to industrial agriculture and are highly productive and sustainable. Moreover, they create livelihoods, give communities greater autonomy, promote climate resilience, and

bring multiple social, cultural, and environmental benefits. Women also play a vital role in ecosystem conservation, natural resource management, and sustainable agricultural practices such as agroecology. According to the IPCC, "gender-transformative and nutrition-sensitive agroecological approaches strengthen adaptive capacities and enable more resilient food systems by increasing leadership for women and their participation in decision-making and a gender-equitable domestic work [sic]."

Women are often knowledge keepers and conservationists. Consequently, they are particularly affected by forest and biodiversity loss and ecosystem degradation overall. However, laws, cultural restrictions, patriarchy, capitalism, and social structures like the sexual division of labour and discriminatory customary laws and norms often reduce women's capacity to support the sustainable use of land resources and possess tenure rights. In fact, the IPCC Land Report has acknowledged the relevance of women's land rights and participation in land governance, and the AR6 WG II report recommends a gender-responsive and transformative approach to climate policymaking to reduce climate risks and vulnerabilities. Meanwhile, the AR6 WG III finds strong evidence that empowering women benefits mitigation and adaptation and positively affects climate policy. These are good signs. But why are these recommendations failing to gain traction?

Shifting Policy Focus to the Roots of the Crisis

Gender-responsive and transformative rights-based approaches have so far received little attention from policy-makers, who are yet to be offered pathways by the IPCC that incorporate

Photo: Federation of Organs for Social and Educational Assistance (FASE), Brazil

in a more comprehensive manner sociocultural and intersectoral strengthening of tenure rights and that are gender transformative and socially just. The IPCC, particularly through its AR6 WG II Report on adaptation, has finally begun to consider principles of distributive justice, procedural justice, and recognition in concluding that climate justice comprises justice that links development and human rights to achieve a rights-based approach to addressing climate change.

But its forthcoming AR6 Synthesis Report should be bold and decisive in presenting a framework for climate mitigation that does not rely on false solutions and clearly articulates the critical role of Indigenous Peoples and local communities and women, as well as their tenure rights and access to land and livelihoods. Without this, policymakers are bound to lead the world down the wrong path.

The IPCC should be instrumental in building up a global, science-based policy consensus to rapidly phase out and divest from extractive industries, halt deforestation and biodiversity loss, and address climate change drivers like industrial agriculture and the livestock sector and put an end to offsets. A global framework is needed for *real* climate solutions that must be gender transformative and community-governed, based on rights and socially just approaches. Climate policy-making must include comprehensive sociocultural and intersectoral measures that strengthen tenure rights and address inequity, inequality, climate vulnerability, risk, and resilience.

Luckily, the solutions are out there and communities and movements are increasingly mobilising to fight for their rights and to preserve ecosystems and natural resources. Many grassroots groups are already implementing genuine gender-responsive and gender-transformative climate solutions that emphasise environmental justice and human rights. They are fighting to secure collective rights to forests, land, and water for Indigenous Peoples, local communities, and women who are taking the lead to conserve and protect biodiversity and ecosystems.

All of this is not as complicated as it sounds. The solutions will not come from business as usual, with more inequality and profiteering, which is what brought us to this tipping point. Real climate action requires gender justice, social justice, and climate justice. We can achieve this if we focus on the *real solutions* that already exist.

Potentials and Risks of the African Forest Landscape Restoration (AFR100) Initiative

Commercial tree plantations are a major cause of land degradation and have no place in efforts to restore degraded ecosystems

By Philip Owen, GeaSphere, South Africa

Across Africa, commercial tree plantations are one of the driving forces of land degradation and all its devastating environmental and socioeconomic consequences. It's for that reason alarm bells are ringing amongst communities and activists that monoculture tree plantations are being promoted under the African Forest Landscape Restoration Program (AFR100), an Africa-wide initiative aiming to restore 100 million hectares of degraded forest land by 2030.

Launched in 2015 at the Paris Climate Summit, AFR100 aims to mobilise support from national governments, public and private sector partners, international development programs and local communities to restore productivity to deforested and degraded lands to improve livelihoods across the African continent. To date, 32 countries have pledged almost 130 million hectares to the project.

According to the UN Food and Agriculture Organisation (FAO), up to 65% of productive land in Africa is degraded and desertification affects 45% of the continent's land area. While the overall trend is moving downward, the net loss of forests is still increasing in Africa, with four million hectares of forest disappearing every year, it says. Removing carbon from the atmosphere through restoring forests and other ecosystems is vital to tackling the climate crisis, and initiatives like AFR100 can play an important role in this. Many of the projects associated with AFR100 and the momentum it has created are making highly valuable contributions to landscape restoration. But the initiative is not without its controversies and there are increasing concerns that corporate capture of the programme is leading to an unprecedented expansion of new commercial timber plantations across the continent—the very same industry driving the deforestation and soil degradation the initiative is supposed to be addressing.

Communities across Africa know first-hand the devastating effects of monoculture tree plantations. In South Africa's Kwa-Zulu Natal Province, social and environmental activist Sibongile Mtungwa remembers first noticing the changing landscape as a child. Walking with her grandmother to collect firewood, she recalls neat rows of perfectly planted pine trees where the natural forest had been. Companies had cut the indigenous trees down, she says, and replaced them with monoculture timber plantations. Sibongile is the director of the Women's Leadership and Training Program in southern Kwa-Zulu Natal Province. She works predominantly with young women between 12 and 19 in rural areas where many residents rely on small-scale agriculture.

The region is primarily species-rich grassland, with patches of indigenous forest along riparian zones in gullies and ravines. But she laments "as the pain of my heart, and the pain of my community" the land degradation brought on by the soil erosion of the past forty years. The environmental and socioeconomic impacts on local communities, especially women, have been devastating. Many residents have abandoned their eroded and degraded fields, leading to food insecurity, she says: "In the past, when more people were farming their plots of land, there was food, even if there was no money." By the time Sibongile was 16, the area under plantations had soared. There was less space for grazing cattle, which were confined to ever-diminishing and fragmented grassland. This led to over-grazing, which leads to soil erosion, she said. It was clear; the soil erosion accelerated with the expansion of timber plantations. South Africa's timber plantations cover 1.2 million hectares, with nearly 40% of those plantations in KwaZulu-Natal, covering over 5% of the province.

As with the broader impacts of climate change-induced natural disasters, land degradation and the spread of commercial tree plantations disproportionately affect poor and vulnerable communities living in rural areas. Women, children, and the elderly are most affected, as it is women who bear the primary responsibility of taking care of basic family needs such as the provision of water.

Across Africa, burning wood biomass remains a primary means of cooking, and collecting firewood is an essential daily task for many households. In most cases, this burden falls upon women and children, for whom it becomes more time-consuming, difficult and dangerous if they have to travel further from the safety of their homes and close community. As the indigenous forest was destroyed and resources were no longer accessible, Sibongile and her grandmother had to walk further—sometimes up to five miles—to get firewood, only to collect from a stand of invasive wattle trees, which is far inferior to the indigenous wood previously collectable in their nearby forest, she says.

Photo: Commercial tree plantations in South Africa, Elsmarie Owen

None of the commercially grown timber (eucalyptus, pine, and wattle) is suitable to use for cooking, says Sibongile; they burn too quickly, so you need to burn more and it produces more smoke, with a greater impact on air pollution and health. This disproportionately affects women who are primarily responsible for preparing food.

Commercial tree plantations were promoted as a form of 'development' which would lead to job opportunities. And indeed, some people were employed by the industry, says Sibongile, but not many. Once planted, the trees require relatively little attention until harvesting and therefore provide fewer employment opportunities than in traditional agriculture, where annual growing and harvesting occurs. The work is also dangerous. Lethal accidents are common, as are long-term health consequences due to exposure to chemical herbicides containing glyphosate, she says.

The adverse environmental, social, health and economic impacts of commercial tree plantations on the local community in Kwa-Zulu Natal Province are clear to see. There is an urgent and recognised need to protect against further degradation of natural resources and to restore ecological integrity to ecosystems across the continent in order to mitigate climate change impacts and alleviate the social, economic, and environmental suffering of marginalised communities across Africa, but considering tree plantations as one of the solutions is beyond reckless.

Yet high-impact monoculture plantations are being established under the guise of 'afforestation' or 'reforestation', including under the AFR100 initiative. These plantations

> *"New science proves that timber plantations actually cause carbon emissions due to disturbances to the soils. It is only when the forest system stabilises that it can sequester carbon, and then it is the 'living ecosystem' not the trees alone, which is responsible for carbon sequestration."*

are most often of alien timber species (such as pine and eucalyptus) with the primary aim of extracting the maximum amount of biomass. New science proves that timber plantations actually cause carbon emissions due to disturbances to the soils. It is only when the forest system stabilises that it can sequester carbon, and then it is the 'living ecosystem' not the trees alone, which is responsible for carbon sequestration. The more biodiverse, the better the natural ecosystem is at sequestering carbon. Grasslands are also important carbon sinks.

Natural grasslands also have a water retention function, holding the rainwater back and releasing it slowly into the underground aquifer. Destroying grassland by establishing timber plantations, compromises this natural process.

In an interview with Mamadou Diakhite, the Acting Head of the Environmental Sustainability Division at the African Union Development Agency, he expressed concern about the spread of monoculture plantations under the guise of restoration. According to Mamadou, NEPAD "totally disagrees with planting monoculture of trees not appropriate to a given location." However, despite his ideological objection, he acknowledged industrial plantations were among AFR100

Photo: Commercial tree plantations in South Africa, Elsmarie Owen

programmes, lamenting that with only 10 staff, the secretariat is small "and the continent is huge."

According to the Global Forest Coalition Briefing AFR100: Driving Commercial Plantation Expansion in Africa? "[half] of the 30 participating countries currently have targets involving commercial plantations that fall within or are concurrent with their AFR100 pledges. Put together, these involve over 4.5 million hectares of commercial tree plantation expansion and 770,000 hectares of improved plantation management. This is equivalent to a 91% increase in the land area currently occupied by commercial plantations in Africa."

This expansion of commercial timber plantations will have devastating impacts on ecological integrity, indigenous diversity and ecosystem services, compromising water and food security for many rural communities. The irony is not lost in the fact that the vast amount of 'invasive plants' responsible for soil erosion are a direct result of large-scale timber plantations under 'afforestation' initiatives. The seeds of pine, eucalyptus and wattle trees disperse into the adjoining natural environment by the wind, water, and equipment, often into the most difficult-to-control areas, such as steep ravines and sensitive streams and rivers. This uncontrolled spread of alien tree species impacts negatively on scarce and valuable water resources and diminishes indigenous biodiversity by out-competing indigenous plants.

South Africa itself has pledged 3.6 million hectares of land to AFR100. Its published priorities under the initiative include increasing water retention and landscape stability by controlling erosion and combating desertification but it is not yet clear which methods will be employed to achieve this. Dense stands of invasive plants are drying up streams and rivers in South Africa, and the AFR100 could yet assist government public works programmes, such as Working for Water (WfW), in this monumental and much-needed effort. South Africa also says it will use AFR100 programmes to combat bush encroachment, a phenomenon where indigenous pioneer species invade and transform primary grasslands, diminishing natural biodiversity and harming the production capacity of the land.

It is not clear if South Africa plans to utilise AFR100 funding to establish more commercial tree plantations, as there is very little publicly accessible information on the initiative. Yet, under South Africa's forest 2030 roadmap, which coincides with the AFR100

implementation phase, there is a 100,000-hectare target for commercial tree plantations.

The only publicly available means of monitoring AFR100 implementation is through the Bonn Challenge Barometer. After two years into the Bonn Challenge and the AFR100 implementation phase (2020–2030), only a handful of countries have reported some progress and South Africa is not one of them. This lack of transparency and accountability makes it extremely difficult to monitor its implementation.

As a multi-stakeholder initiative with an emphasis on public-private partnerships and leveraging private-sector investment, AFR100 is inherently susceptible to corporate capture, which will seek to push commercial tree plantations and other profitable yet false solutions to the climate crisis. This makes the need for transparency and accountability critical, not only for implementing governments but also for the companies and governments from the Global North that are funding and supporting them.

Among the AFR100 technical partners are Europan-based climate consultancies and firms, such as Unique, a 'forest management and consultant firm' headquartered in Germany, which promotes and is linked to the setting up of commercial plantations in several African countries, including Madagascar, Kenya, and Mozambique. Germany's Federal Ministry for Economic Cooperation and Development (BMZ) is also a founding partner of the AFR100, providing support for the structure of the initiative and selected AFR100 countries, via GIZ for technical cooperation and KfW for financial cooperation.

Governments and technical and financial partners of the AFR100 must ensure funding and support under the initiative goes towards genuinely effective efforts that reverse land degradation and deforestation whilst also benefiting rural communities and addressing historical grievances and structural inequalities for marginalised communities, including women.

The impact of commercial tree plantations on the natural environment depletes water resources and negatively affects biodiversity resources and ecosystem services, which directly impacts communities living in these rural areas. As the African Biomass Working Group so candidly put it: "Monoculture Tree Plantations Are Not Forests!"

Addressing land degradation in Africa is central to the global battle against climate change and biodiversity loss. The key to sustainability is diversity. Ecologically diverse landscapes should be cultivated on all levels to enhance ecological services, such as natural water retention and prevention of soil erosion. Monoculture timber is not a solution to, but a cause of land degradation and must not be permitted under the AFR100.

Photo: Commercial tree plantations in South Africa, Elsmarie Owen

Assessing Trees for Global Benefit Uganda

A Case Study on the Failures of Carbon Offsetting

Companies purchasing carbon credits as offsets are guilty of greenwashing and inflicting adverse impacts on local communities

By D.K. and Marvin Kamukama, Uganda

Since 2003, thousands of farmers in Uganda have planted over two million trees as part of Trees for Global Benefit (TGB), a carbon offsetting programme whose designers claim to be a model of climate mitigation and social and economic development. However, research shows that the project, run by the Environmental Conservation Trust of Uganda (ECOTRUST) and facilitated by Plan Vivo, is one of a growing number of global greenwashing exercises that are not only failing to reduce the amount of carbon being released into the atmosphere but also inflicting adverse environmental, social, and economic impacts on the local communities involved.

In July 2022, a Global Forest Coalition (GFC) member organisation visited communities involved in the project in Hoima and Kukuube districts in Western Uganda. Participants raised concerns about food security, economic hardship, and other negative impacts, particularly on women and other marginalised groups. Desk research further identified companies, predominantly in Sweden and other Scandinavian and European countries purchasing carbon credits through the TGB programme, directly contributing to the negative impacts on local communities.

Trees for Global Benefit—Positive Innovation or Climate and Carbon Colonialism?

TGB describes itself as an "innovative forest-based landscape restoration initiative that integrates biodiversity conservation outcomes with climate change adaptation and mitigation outcomes within the context of landscape reforestation linked to improved livelihoods and sustainable landscapes."

Since 2003, ECOTRUST says it has signed contracts with over 15,000 farmer households across 14 districts in Uganda, planting approximately 2.3 million trees. According to the latest project report, these trees have sequestered over two million tonnes of CO2, which ECOTRUST has sold as credits on the voluntary carbon market to national and international companies and individuals over the past 18 years. However, we can safely conclude from the Intergovernmental Panel on Climate Change (IPCC) findings in their AR6 reports that there is no further room for offsets. The more we use offsets, the more we are delaying the immediate emission reduction

The four main sites where TGB has expanded and is operating in Uganda since it was initiated in the Bushenyi District of South-Western Uganda

target by 2030, and moving towards a point where the temperature increase will offshoot 1.5. Offsets are a barrier to real climate solutions.

The TGB project was initiated in the Bushenyi District of South-Western Uganda and has since expanded, operating across four main sites: the Murchison Falls National Park in the Northern Albertine Rift, which includes Hoima and Kukuube districts, the Queen Elizabeth National Park in the escarpment areas of the Albertine Rift valley, and districts neighbouring the Mt. Elgon National Park and the Rwenzori mountains bordering Congo, a UNESCO heritage site. Under the Plan Vivo standard, there is no requirement for new assessments or registration to be carried out for the project's expansion to new districts.

In essence, ECOTRUST signs contracts with small-scale farmers to plant and grow certain species of trees on their land for 15-25 years in exchange for payments for the "carbon" being sequestered in the trees. ECOTRUST acts as the broker for a farmer's "cooperative", aggregating and then selling carbon credits on the international market.
Plan Vivo Foundation says the project "operates as a market-based solution that reduces unsustainable exploitation of forest resources and the decline of ecosystem quality while diversifying and increasing incomes for rural farmers and their families." It claims to provide economic benefits through direct payments to farmers for planting trees and contribute to "income stability, food security, and fuel security" at the community level. It also mentions that tree planting is turned into sustainable forestry or agroforestry.

But do these claims hold up to scrutiny? What are the experiences of the local farmers and landowners who have signed contracts with ECOTRUST? Do they understand the processes involved and the concepts that they are taking on the burden of sequestering CO2 being released into the atmosphere by companies, mainly in the global North? Has the project helped decrease deforestation in the areas it is being implemented? Has it helped local communities with access to wealth, employment, and food security? Or has it led to further inequity and sowed divisions and conflict within communities? What has the specific impact been on women and other marginalised groups?

Beyond the fact that carbon offsetting is not the answer to climate change, these other important questions on justice, equity, and local economic, health, and social impacts of these projects require scrutiny. Discussions with community members in Hoima and Kukuube revealed significant problems with the project that suggest it has failed to achieve its objectives and is causing more harm than benefit and must therefore be rethought.

Voices from the Ground: "You Can't Eat Money!"

In July 2022, a GFC member organisation travelled to Hoima and Kukkube districts in Western Uganda, where they spoke with over 100 community members—both participants and non-participants of the TGB project—including 60 women. The research was conducted in the communities of Kigaaga A, Kigaaga Parish, Kabale Sub-County in Hoima District, and in the communities of Kyakayemba Village, Kidoma Parish, and Kiziranfumbi Sub-County in Kikuube District. Interviews were carried out in one-on-one settings, including visits to TGB plantations, and group consultations with community members.

> *"No longer able to farm food on agricultural land, now assigned to grow trees to "capture" carbon and offset the CO2 being released into the atmosphere by multinational companies, they told GFC they were now facing economic hardship and food insecurity."*

The clear message from all communities was that the project was not delivering its promised benefits, and participants were growing increasingly bitter and desperate. All respondents said they felt trapped by the lengthy contracts they had signed and were not receiving the money and security they had expected. No longer able to farm food on agricultural land, now assigned to grow trees to "capture" carbon and offset the CO2 being released into the atmosphere by multinational companies, they told GFC they were now facing economic hardship and food insecurity.

As women in the region often lack the same access to land ownership and alternative employment as men, they have borne the brunt of these adverse impacts. In terms of economic justice, women have fewer opportunities to become financially independent since they are culturally responsible for unpaid domestic and care work. Women also collect wood and water and grow food, which makes them crucial actors in the community's food security. This unequal sexual division of work has negative impacts on women's opportunities in the region, including providing less time to develop other remunerated work and high levels of burnout and physical demand.

Access to power and control of resources is also limited for women. When different companies arrived in the region to build the Hoima international airport and exploit oil and gas through massive extractive projects, they forced the people of the community off of their lands. Beyond the significant impacts on their livelihoods and customary practices, this land grabbing resulted in inadequate compensation for many women, since the money from the compensation would often go to male account holders who actually own the land. There is no evidence of any gender action plan to compensate women, who are responsible for the continuation of life and preservation of food security, after this intervention. Not a single woman in the communities visited is in charge of any of the carbon credit projects. Most of the coordination, contract signing, and decision-making is controlled by men, which undermines women's ability to make choices and decide on the particular uses of the resources.

The TGB project is run as a cooperative, with ECOTRUST purchasing carbon credits from small-scale farmers and then selling those on the market. According to a contract seen by GFC, ECOTRUST makes performance-based payments to land owners or "producers" over 10 years based on the Terms of Agreement. These payments are made in years 1, 3, 5, 7, and 10, but only if the farmers meet the performance targets as set out in the contracts. For the first three years, the focus is on the survival of the trees; after that, it shifts to tree parameters such as breast height, crown width and total height—supposedly a way of measuring the amount of carbon sequestered.

According to ECOTRUSTS's latest annual report on the TGB project, in Hoima, only 51% of farmers (146 out of 287 monitored) met their target—meaning the rest did not receive the expected payments. In Kikuube, the success rate was slightly higher at 63% (170 out of 267 monitored). According to ECOTRUST, "the farmers [sic] poor performance in Hoima and Kikuube was a result of the drought resulting in farmers [sic] failure to plant and meet their targets." Regardless of the cause, the project appears indifferent to the struggles and suffering of small-scale farmers who have not seen the benefits they were promised by ECOTRUST when it convinced them to sign up for the project.

Tables 1 and 2 below show the performance rates of farmers in each of the districts, broken down by which year of the project their plantations are in, as published in the TGB annual report.

Economic Hardship and Food Insecurity
Many of the participants GFC spoke to said they were suffering from economic hardship and food insecurity. They said the money received from TGB contracts was insufficient to support their families, and they had converted land previously being used for food crops to grow trees. As one local NGO representative told GFC: "You can't eat money."

Underlying issues uncovered through this research suggest ECOTRUST failed to inform participants of the technicalities of the project, including payment schedules and details and even what specifically ECOTRUST was paying them for. One of the most common complaints was that the initial payments upon signing the contract with ECOTRUST did not sufficiently cover the cost of establishing the trees. Almost all participants said they had not received the expected payments. ECOTRUST can only make the performance-based payments after a formal monitoring visit to ensure farmers have met their contractually agreed targets, which many failed to meet. Issues were also raised regarding delays in ECOTRUST monitoring visits to assess whether targets had been met and to approve the performance-related payments, potentially because of the rapid expansion of the project into new areas. Participants also said ECOTRUST often makes payments through its mobile money application and usually to the male member of the household. GFC heard of situations where husbands did not inform their wives and children of these payments, leading to increased tensions and, in some cases, domestic violence.

These experiences uncover a central failing of the TGB project (beyond the fact that climate offsetting does not work)—its lack of recognition of the dynamic nature of rural economies and that land use preferences will alter over the duration of the contract. The chief issue of the communities involved in TBG who spoke to GFC is food security or the lack of it. Almost all participants GFC spoke with in Hoima and Kukuube districts said they were facing food security issues.

Table 1

Years of monitoring	Qualified	Not Qualified	Total
0	**6**	**15**	**21**
1	45	52	97
3	42	14	56
5	29	44	73
10	24	16	40
Grand Total	**146**	**141**	**287**

Table 2

Years of monitoring	Qualified	Not Qualified	Total
0	2	2	4
1	168	95	253
Grand Total	**170**	**97**	**257**

Photo: A community meeting to discuss the implications of TGB on food sovereignty and community livelihoods, Marvin Kamukama

Before joining the TGB project, farmers had control over their crops. They could decide which trees and food crops to grow and when and how to rotate them. Under the contracts with ECOTRUST, they are tied in for at least 15 years. The money they receive from ECOTRUST is insufficient to purchase food, and as the trees grow, they cannot grow other crops in between. Not only does this impact those farmers directly involved in the project, but also access to food in the wider community.

Furthermore, the project requires a certain amount of land ownership, the project excludes poorer members of the community or incentivises the purchase of additional land (potentially through borrowing) or conversion of food-growing land to enable poorer farmers to participate.

The relative benefits of different land use depend entirely on a farmer's specific circumstances, which may change over time. Thus, farmers are unaware of the contractual consequences of changing land uses, so they and their children become bound to lengthy contracts, significantly limiting their ability to manoeuvre in the future. It was evident through the field research that some farmers in Kigaaga Village in Hoima District have converted all available land, including in their house compounds, to growing trees in the expectation of making more money. This is an unsustainable model and leads to increased food insecurity among those involved in the project. Simply put, people cannot achieve food sovereignty by converting their prime food-growing land into tree plantations.

Transparency and Communication

Through discussions with TGB project participants, it is clear that many lack detailed information on the project and feel they cannot engage with ECOTRUST to request information or air grievances or complaints. A fundamental failure in this regard is the level of information and detail in the contract signed by ECOTRUST and farmers or "producers". For example, the agreement signed by farmers does not provide essential information such as what would happen if either the producers or the buyers reneged on their agreement and what would happen if trees were lost through malicious acts or natural disasters. Furthermore, farmers were frustrated that the contract was only available in English. It was also evident that some farmers did not seem to have a copy of the agreement, and it was frequently unclear to them how much they would be paid and when. Lack of access to advice and information from non-project sources increased the risk that potentially vulnerable people might take decisions not currently in their best interests or reduce their ability to adapt their land use to changing circumstances in the future.

The latest audit of the project confirms the findings regarding a lack of understanding among farmers of what they have signed, stating: "Site visit interviews with producers/farmers indicated that a majority had an actual copy of their contract, however many were unclear on the actual details of the contract."

Carbon Offsetting Doesn't Work: Time to End the Practice of Greenwashing

As TGB is primarily a carbon offsetting project, it is inherently flawed. It is motivated by and dictated to by the global carbon market. It supports corporate public relations initiatives that are contrary to actual climate mitigation solutions and the interests of those small-scale farmers convinced to take part.

Key decisions regarding the project design and implementation are made at levels inaccessible to the farmers actually implementing the project on the ground and often against their best interests. Pressures from global capital mean ECOTRUST is motivated and accountable to international carbon markets, in this case, the Plan Vivo standard. These include requirements

> *Projects based on market-based approaches, including carbon offsets, are typically envisioned and designed in the Global North and implemented in the Global South. Thus, they are a form of climate and carbon neocolonialism and commercialisation of nature.*

on specific tree species to be grown, even if they may not be the most economically viable or profitable in the long term. These issues have been well analysed and raised in numerous studies, including a 2017 study by Carton and Andersson, and a 2017 paper by Fisher et al.

Simply put, carbon offsetting does not work. Offsetting means emissions are still being generated, not reduced and avoided, and offset somewhere else, allowing companies to continue their unsustainable practices. Projects based on market-based approaches, including carbon offsets, are typically envisioned and designed in the Global North and implemented in the Global South. Thus, they are a form of climate and carbon neocolonialism and commercialisation of nature.

Nowadays, land-based carbon offsets projects typically rely on tree planting schemes, as is the case of the TGB project in Uganda, which adds the problem of permanence: carbon dioxide stored in trees will sooner or later be released back into the atmosphere, including through fires and pests, which are now more frequent and extreme due to climate change.

Under the Plan Vivo standard, 60% of carbon credit sales must go to the farmers. The latest audit of the TGB project raises concerns about the information provided and whether ECOTRUST is meeting this minimum target. According to the audit, "incomplete information was provided to verifiers to confirm this requirement. It was not clear from the files provided if, for instance, payments to SACCOs [Savings and Credit Co-Operative Societies] included issuance numbers, files were linked to external files with no supporting data, and files did not cover the entire verification period."

Published operational costs from the latest annual report of ECOTRUST show that nearly $480,000 USD of carbon sales from trees planted by Ugandan farmers in 2020 went into the running costs of the project rather than to the farmers growing the trees that produce the carbon credits—this included over $280,000 of carbon credits grown by Ugandan farmers going to "staff time." This compares to $682,889 distributed to thousands of farmers in 2020.

During the last published annual reporting period (2020), the project says it sold tCO2 285,694 to various buyers. Most of these purchases were through Zero Mission and My Climate (see Table 3 below). Most companies purchasing carbon credits through Zero Mission are based in Sweden or elsewhere in Scandinavia and Europe, including companies in France and Germany. Key companies purchasing TGB carbon credits over the past two years include fast food and retail food chains, dairy and food processing companies, as well as entertainment, fashion, real estate, aviation, and automobile companies. Interestingly, purchasers also included sustainable development and climate solution consultants. A complete list is available on the Mer Markit website through this link.

These companies are guilty of greenwashing and exporting their climate responsibilities to poor African communities in Uganda. Companies should instead address their own practices to ensure a reduction in carbon emissions whilst supporting genuine social, environmental, and economic development programs in poorer communities, particularly those bearing the brunt of climate change.

Trees for Global Benefit does not achieve what it claims. Rather, it should be labelled Trees for Climate Greenwashing. All the information is there. The corporate, capitalist capture of climate change mitigation is a risk to the planet and must be stopped. The greenwashing of carbon offsetting programmes must end and real, gender-just, community-led and governed solutions must be supported. This will not only contribute to climate change mitigation and adaptation but also to social, gender, and climate justice, and equity among the world's poorer communities.

Name of purchaser/ source of funds	Number of PVCs purchased
ZeroMission P.O. 521	433
Classic Africa Safaris (UCB)	71
Kaffeekoop GmbH	209
ZeroMission P.O. 520:	2697
ZeroMission P.O. 520:	2070
Myclimate	20,000
KUA	54
International School of Uganda	276
ZeroMission P.O. 520:	2081
ZeroMission P.O. 482 Arla Foods & others	51,143
ZeroMission P.O. 463:	869
ZeroMission P.O. 476 :	98,914
ZeroMission P.O. 504	1,850
C Level	1811
COTAP	3,287
Myclimate	50,000
Myclimate	50,000
Grand Total	**285,765**

The Industrialisation of Forest-Based Bioenergy Production in Nepal

And Its Impacts on Women and Other Forest-Dependent Peoples

By Bhola Bhattarai, NAFAN, Nepal

Introduction

The large-scale burning of forest biomass for energy, primarily through the use of wood pellets, has proliferated over the past 15 years. This growth has largely been fuelled by the false claim that the burning of forest biomass is carbon neutral—a flawed approach exploited in the climate accounting that helps the European Union, United Kingdom, United States, South Korea, Japan, and other industrialised nations "meet" emissions reduction targets under the Paris Agreement.

Bioenergy is a form of so-called renewable energy, generated from the conversion of biomass into heat, electricity, biogas, and liquid fuels. Biomass is organic matter derived from forestry, agriculture, or waste streams.

According to Bioenergy Europe's Supply Report 2021, since 2000, the overall use of bioenergy has tripled from 41 million tonnes of oil equivalent (Mtoe) in 2000 to 117 Mtoe in 2020, with over 70% of that coming from forest biomass, largely in the form of wood pellets. In 2018, the global demand for industrial wood pellets exceeded 52 million tonnes, with the EU and UK being by far the largest pellet consumers in the world with an annual consumption of 27 million tonnes. The market for wood pellets in Asia is also continuing to grow, largely led by South Korea and Japan, and is becoming the driving force of the global pellet market alongside Europe. Between 2012 and 2019, the sector saw an annual growth rate of 11.6%, with the highest growth rate in Asia at 49%, followed by Oceania at 30%, according to the World Bioenergy Association. Without urgent policy intervention, this demand is projected to continue to grow over the coming years as countries continue to expand the use of bioenergy to meet increasing energy demands.

Not only is burning forest biomass not carbon neutral, it also actively harms the climate, emitting large quantities of greenhouse gases into the atmosphere, as well as emissions from the supply chain and logging industry. It also directly harms forests, threatening biodiversity and climate resilience. Furthermore, it brings harm to people and threatens the rights, interests, lives, livelihoods, and cultural values of Indigenous Peoples, local communities, and women. Nepal has recently sought to capitalise on the growth of the global forest biomass market and take advantage of government policies, largely under the Biomass Energy Strategy 2017, by supporting the expansion of industrial biomass production. This report looks at the development of the forest biomass industry in Nepal and its economic, social, and environmental impacts, specifically on women and forest-dependent communities in Sarlahi District in Southern Nepal.

Government Bioenergy Policies and the Growth of Industrial Biomass Production

Traditional biomass energy, including firewood, cattle dung, and agricultural residues, is still the major source of energy in Nepali rural communities, providing 77% of the country's energy needs.

From the perspective of the bioenergy industry, with 45% of the country under forest cover, Nepal is "rich" in forest biomass. According to government figures, the total above-ground air-dried biomass of trees in the forests of Nepal is equal to 1,159.65 million tonnes—an average of 194.51 tonnes per hectare. According to government calculations, around 2.76 million tonnes (Mt) of biomass in the form of pellets are potentially available from forest-based biomass.

Over the past decade, Nepal has placed an ever-greater focus on industrialising its bioenergy production. Through its Biomass Energy Strategy 2017,

Nepal has identified forest-based bioenergy, along with hydro, wind, and solar power, as a key element in charting the country's sustainable energy development and transition to "clean energy solutions." Under this strategy, the government is promoting the development of industrial forest biomass production. The strategy aims to provide technical and financial assistance for the research and development of modern, efficient, and affordable biomass energy technologies and industries. This plan contradicts the science and increasing awareness that the industrialisation of the bioeconomy is harmful to the climate, nature, and biodiversity, harmful to human rights, and incompatible with a just transition from the fossil fuel economy.

Patle Community Forestry in Sindhupalchok, Bhola Bhattarai, NAFAN, Nepal

According to Nepal's second Nationally Determined Contributions (NDC) submitted to the United Nations Framework Convention on Climate Change (UNFCCC) on December 8, 2020, the country aims to be net zero by 2050, with transitions to "clean" energies as a central element to achieving that goal. To achieve this, it will expand clean energy generation from approximately 1,400 MW to 15,000 MW by 2030 in the form of mini- and micro-hydro power, solar, wind, and bioenergy. At the same time, it has committed to maintaining 45% of the total area of the country under forest cover (including other wooded land limited to less than 4%) by 2030, as well as managing 50% of Tarai and Inner Tarai forests and 25% of middle hills and mountain forests sustainably.
The government strategy falsely claims that a shift to industrial biomass energy production from agricultural residues, forest biomass and residues, as well as organic waste can be achieved alongside supporting environmental conservation through the sustainable production of biomass energy.

The promotion of alternative energy sources, including bioenergy, is also present in the Fifteenth Periodic Plan of the Government of Nepal 2019-24. The Government of Nepal also plans to mobilise resources from the Green Climate Fund and other national and international environment and climate change funds to promote alternative energy, including wood pellet production.

Under these initiatives, private companies have proliferated, benefiting from international climate funding and favourable financing and loans from local commercial banks, including NMB Bank. In a recent interview, Sushil Gyawali, the chair of the Biomass Entrepreneur Association Nepal (BEAN), said companies producing biomass and charcoal briquettes and wood pellets are "fully sourcing their raw materials from forest waste, and the quantity of fresh biomass that will be converted to prepare charcoal will be around 15,000 metric tonnes per year." However, the sourcing of fresh biomass from Nepal's forests for the production of wood pellets is double that, at some 30,000 metric tonnes a year, he said. At current rates, that is equal to just 1–2% of the total available biomass, he said, adding that this rate is likely to increase rapidly, especially to fuel enterprises in more remote areas of the country as Nepal seeks to increase development over the next 20 years.

As highlighted by Biofuelwatch and other NGOs, including the Global Forest Coalition (GFC), it will take huge areas of land and huge quantities of wood to supply a tiny fraction of the energy we use—directly threatening forests, local communities, and climate mitigation targets. Arguments that biomass emissions should be considered to be zero at the point of combustion because carbon has been absorbed during the growth of the trees are not credible. Burning biomass immediately releases CO2 into the atmosphere and it can take years for that same amount of CO2 to be locked into biomass by a plant. Biomass also emits more greenhouse gases per unit of energy than most fossil fuels.
A new report from the US—the world's leading wood pellet exporter—shows how the global pellet industry is devastating US forests. A recent report from the BBC also exposed how an industrial wood pellet company in the UK was directly responsible for the cutting down of primary forests in Canada. This should act as an alarm for countries such as Nepal not to follow in their footsteps and instead focus on truly renewable energies.

Industrial Biomass Wood Pellet Production in Sarlahi District, Southern Nepal

Founded in 2016, Bakas Renewable Energy Ltd. is the first company to produce bioenergy from forest biomass on an industrial scale in Nepal. In 2021, it began sourcing and producing wood pellets from forest biomass in the state-owned Sagarnath Forest Development Project in Sarlahi District of southern Nepal, with a projected production capacity of 20,000 tonnes of wood pellets per year.

Under a 20-year agreement with the state Forest Products Development Board, Bakas, in partnership with Arbonaut Ltd, Finland, is collecting raw material from the forest undergrowth of the government-owned, 13,000-hectare Sagarnath Forest Development Project (personal communication with a representative of Bakas, August 07, 2022). According to the terms of the agreement, Bakas can collect 30,000 metric tons of forest biomass per year—equivalent to 50% of the existing biomass on the forest floor—from 27 types of species including grass, bushes, and invasive species. However, the amount of biomass being removed is not yet being monitored and local forestry officials and community members told GFC that the company was removing more biomass from the forest than permitted under the agreement. Bakas is also authorised to use forest land to collect and store biomass at five sites in the area.

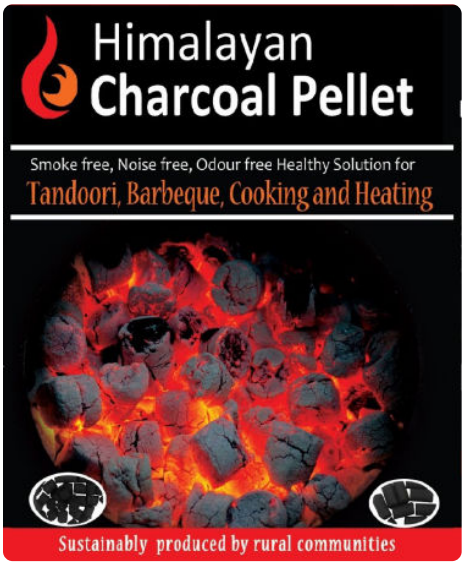


Photo: Design of Pellet Bag

The project has equity investment from the competitive climate challenge fund of the Nordic Climate Facility Grant, financed by the Nordic Development Fund, as well as financing from Business Oxygen, an SME Venture Fund in partnership with the International Finance Corporation. The NMB Bank of Nepal is also providing debt financing and a working capital loan for the production of biomass pellets, reflecting strong investment interest in industrial biomass production from local commercial banks.

According to the representative of the company, about 27,000 tonnes of raw materials including forest biomass, farm field biomass, sawdust, and agricultural byproducts (e.g. bagasse/ply waste, dried biomass/agricultural waste, sawdust/cut pieces) are being collected every year. According to the company, they have been extracting around 15,000-20,000 tonnes of forest biomass from the Sagarnath Forest Development Project in Sarahi and Mahottari for the past year, but the project is still in its infancy, with a recently set up manufacturing unit, and its pellets will be on the market soon.

The company claims light detection and ranging (LiDAR) technology has been used to map forest undergrowth biomass at high resolution. They also say they use Arbonaut's GIS platforms and mobile apps for the sustainable harvest of biomass resources along with forest fire risk assessment and management. The company also says it reduces CO2 emissions through the removal of highly flammable biomass and the use of advanced forest fire management systems. This claim is misleading as research shows that thinning forests can actually *increase* fire severity, as well as increase carbon emissions and reduce forest carbon storage.

The company also claims to be supporting the local economy through employment opportunities. They say that through engaging women and other marginalised groups in the collection and processing of raw materials from the forest floor, as well as farmers' fields, the local community will get a 10% equity share of the industry. They employ around 200 local people.

However, these claims do not live up to scrutiny. During a recent field visit, GFC member organisation National Forum for Advocacy Nepal (NAFAN) heard complaints from local community members regarding several issues with the project, including potential breaches of the agreement between the Nepal Government and Bakas, which are placing the community in direct conflict with Bakas and its biomass energy project.

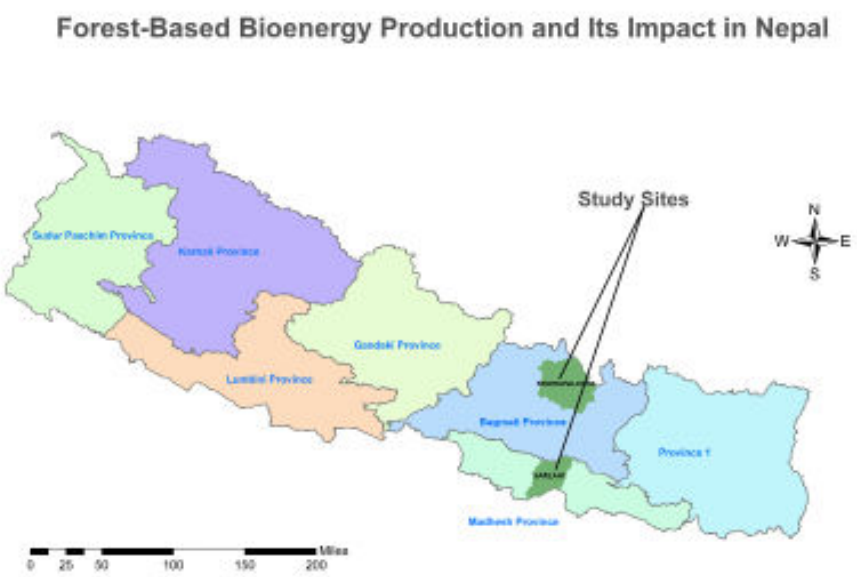
In August 2022, NAFAN conducted a field visit to Sarlahi District in Southeastern Nepal, where we spoke with local community members, including community forestry leaders, biomass collectors, porters, government forestry officials and others. The research exposed a list of concerns and issues that require urgent attention and underlines how the continued expansion of biomass energy production in Nepal will undoubtedly lead to negative environmental, social, economic, and health impacts on the local community, in particular women.

Forest biomass conserves landscapes, soil, and water resources. The collection of forest residues like branches, leaves, and bark can eventually reduce the organic matter and minerals in the topsoil of the forest if collected frequently, exposing the forest soil to various harsh environments. Meanwhile, cutting down trees for pellet production is not ecologically beneficial. It can lead to the loss of microbes in the soil, eventually leading to the loss of biodiversity from the forest floor as every living organism in the forest tends to directly or indirectly depend on forest biomass for food or shelter. Habitat loss can be a major impact of forest biomass collection in the long term.

During recent NAFAN field observations, some of the chief concerns regarding the expansion of industrial-scale bioenergy production included; reduced access and scarcity of forest resources; lack of access to grazing lands for community livestock; increased air pollution and negative health impacts; unfair payments from the company for biomass; unsustainable collection of forest biomass, including tree branches; and undermining of community forestry decision making and authority, all of which has led to increased conflict between local communities and companies involved in bioenergy production.

A major concern raised by the local community in Salahi District concerned restrictions on access to and collection of forest products. According to those we spoke to, the local community is restricted from collecting forest waste at the project sites because of agreements between Bakas and the State Forest Development Board. Women from local communities are particularly impacted by this, as they are primarily responsible for collecting grass, fodder, and firewood.

Another issue raised by the local community and local officials was that



the company was potentially removing more biomass from the forest than permitted in its agreement with the Nepal government. Without a proper monitoring mechanism, there is no official data on the amount and form of biomass being collected by the company, when, and from where.

A further issue surrounds allegations the company is removing prohibited forms of biomass from the forest, beyond those permitted by its agreement with the government. NAFAN heard from local community members and government forestry officials that Bakas was removing living wood, tree branches, and other non-permitted forms of forest biomass. Beyond that, we also heard complaints from community members that the company was not paying the agreed rates for biomass collection, failing to fulfil its obligations and commitments, and causing further economic hardship to the local community.

Marginalised, Indigenous and tribal communities still depend on forest products for their day-to-day existence, for food, shelter, employment, and trade. Over-exploitation of forest resources to meet industrial-scale biomass production will inevitably disturb forest biodiversity, degrade the soil and eventually affect the bioculture, medicinal values, and wild food production of the forest from which the Indigenous communities have traditionally survived.

Women from the local community who spoke to NAFAN said that the increasing scarcity of grass, fodder and other forest products will lead to increased conflict within their communities. As women are mainly responsible for collecting firewood, fodder, and leaf litter, this will disproportionately impact them, forcing them to travel further to source these materials.

Household and small-scale farmers rearing goats, cows, and buffaloes raised similar concerns. They told NAFAN, that due to the establishment of eucalyptus plantations and rampant biomass production, farmers face a scarcity of grass, fodder, leaf litter, and other forest products they need for their cattle. “The grass and fodder are not easily available in our forest after the monoculture plantation,” a female farmer, 56, told NAFAN.

The removal of forest biomass from the forest floor on a large scale also affects the water retention capacity of the forest soil, which lowers the groundwater recharge, eventually leading to the drying up of natural springs and small rivers inside the forest. As animals like deer, monkeys, and wild hogs depend on the forest

undergrowth for their food, harvesting shrubs and grasses leads to food loss for those animals. This leads to increased agricultural crop damage as the animals search for other food sources.

Just one year into operations, these issues have led to conflict between the community and the company over the project and they have made calls for the agreement between Bakas and the government to be rescinded. As many of these issues disproportionately affect women, including restricted access to forest-derived products, they are at the forefront of this conflict. Any expansion of the project would worsen these negative impacts and conflict in the area.

There has been no positive response from Bakas or the government to these economic, social, health, and environmental impacts.

Conclusion and Recommendations

Nepal's energy strategy fails to address the full impact of promoting industrial bioenergy production from forest biomass. Evidence on the ground shows that even in its nascent stage, the industrialisation of the sector is negatively impacting local communities and forests.

Forests provide essential services and products that sustain the lives of millions of humans and animals across the planet. Many marginalised Indigenous and tribal communities still depend on forest products for their day-to-day survival involving food, shelter, employment, and trade. As the above research on the impacts in Sarlahi District shows, industrial bioenergy production from forest-sourced biomass threatens the rights of Indigenous Peoples and other forest-dependent peoples and communities. Any forest-sourced bioenergy production on an industrial scale will inevitably harm the local environment and communities, in particular women in all their diversity, and fail to contribute to global efforts to mitigate climate change.

Photo: Biomass burning inside the forest
Sushil Gyawali

The **Government of Nepal** should implement the following recommendations to protect Nepal's forests from exploitation by the bioenergy industry and ensure the rights of forest-dependent people and communities;

Halt and avoid the implementation of industrialised, large-scale production and use of forest biomass for energy. Nepal should amend its bioenergy strategy and policy to focus on genuine renewable energy. Policy focus should instead be on expanding genuine low-emissions renewable sources, such as solar and wind, that do not damage biodiversity or the carbon density and sequestration capacity of forests, in line with Nepal's international human rights and climate change commitments.

Ensure and protect the rights of forest-dependent peoples, including women and other marginalised communities: Government policies and laws, including those related to forest management and the use of forest resources, should ensure the primacy of rights protections for Indigenous Peoples and other marginalised communities, including youth and women in all their diversities, over private companies seeking to exploit forest resources.

Establish an inclusive and transparent bioenergy governance mechanism that ensures effective regulation and oversight of biomass energy for local, domestic use and implements social and environmental safeguards including regulations on greenhouse gas emissions, pollution, and air quality, and guarantees access of marginalised communities to clean, dependable and affordable sources of energy.

“The Land is Not For Sale, The Air is Not For Sale”

REDD+ in Colombia

> *“Colonization passed belatedly through women, we were considered so insignificant that our thinking was worthless. That's why we maintain the ancestral, the sacred, the will to take care of nature without setting prices.”*
>
> *-Lourdes Contreras, World March of Women Macronorte Peru. Rights of Nature Forum*

By Andrea Echeverri, Censat Agua Viva, Friends of the Earth Colombia

Colombia’s climate policies have enthusiastically replicated international guidelines. With its ratification of the Kyoto Protocol in 2000, Colombia began promoting climate flexibility mechanisms, especially clean development mechanisms (CDM), and since the 2000s has recognised wide possibilities for forest carbon offsetting. Following its ratification of the Paris Agreement in 1997, Colombia has focussed its responses on offsetting greenhouse gas emissions (GHGs) through carbon pricing instruments rather than actually reducing them. This dedication to carbon offsetting has even earned the country international accolades. In 2018, the International Emissions Trading Association (IEAT) and the Climate Markets and Investment Association presented the Carbon Pricing Champion Award to Colombia at COP24 for its “leadership… in the promotion of carbon pricing and offsetting as instruments to address climate change.”

One of the key instruments for Colombia’s carbon offsetting programmes is REDD+—a major global initiative launched in 2013 supposedly to reduce emissions that cause climate change by offering financial incentives to countries to avoid deforestation. REDD+ (Reducing Emissions from Deforestation and Forest Degradation) has been promoted as an inclusive and creative way to address the climate crisis and deforestation by benefitting communities through the conservation and enhancement of forest carbon stocks. However, REDD+ is increasingly being called out as a threat to mitigation efforts that shifts the burden onto the people and places least responsible for climate change and least able to cope with it whilst acting as a distraction from the need to reduce emissions at their source.

Colombia has multiple characteristics that have created favourable conditions for REDD+: 59% of its emissions are from land use change, and 31% from deforestation. As of 2018, some 52.6% of continental Colombia was natural forest cover, with roughly 33.6% (about 25.5 million hectares) of the national territory titled to ethnic or peasant communities, according to government statistics. The country currently hosts jurisdictional and project-based REDD+ programmes, such as Visión Amazonía and the Biocarbon Project in the Colombian Orinoquia, promoted by the Colombian state, as well as an undetermined number of private-sector projects. In the International Database on REDD+ projects and programmes, 55 projects were listed as of 2021, including Improved Forest Management (IFM), Afforestation, Reforestation and Revegetation (ARR) and REDD projects.

In 2018, the Ministry of Environment and Sustainable Development issued Resolution 1447, establishing the monitoring, reporting, and verification system of national mitigation actions and specifically the National Registry of Greenhouse Gas Emissions Reduction (RENARE). However, the system has not been without its flaws and the RENARE registry was inaccessible for several months of 2022, including at the time of writing. RENARE aims to “manage information at the national level on GHG mitigation initiatives that intend to qualify for payments for results or offsets”, i.e., it is covered by a logic of offsets and not of actual reductions. All REDD+, CDM, low carbon and other programmes and projects must be registered on RENARE. Colombia has also imposed a carbon tax since 2017, but this can be evaded by acquiring carbon credits that companies can use to proclaim their carbon neutrality and thus not only deepen the climate

Women from the Indigenous Women's Association -ASOMI- at the opening ritual of a planning workshop in 2022. The meeting concluded that 'The Earth is not for sale, water is not for sale, air is not for sale!' Andrea Echeverri

crisis, but also the territorialised impacts of extractive industries that benefit from this image washing.

Another major concern around Colombia's REDD+ initiatives is the lack of information and understanding among affected communities engaging with these projects, particularly Indigenous Peoples. "These terms are unfamiliar to the communities where the projects are implemented. The communities think they are selling oxygen, which will be canned or packed in sacks, to be sent to countries that have polluted their air; in exchange for nothing. However, they are selling their territorial use rights, it is not really in exchange for nothing," says Luz Mery Panche Chocue, a Nasa Indigenous woman from San Vicente del Caguán in Colombia's southern Amazon region.

Furthermore, questions have been raised about the share of profits that go to communities on the ground. A report published in 2016 by Forest Trends on the monitoring of REDD+ financing from 2009 to 2014 points out that, of about USD $55 million disbursed by international funding over that period, only $6.4 million went to community-based organisations as the primary beneficiaries, compared to $14.5 million received by international companies and consulting firms, and $16 million to national and international foundations and non-governmental organisations.

> *"Agreements are usually signed by men, leaving aside the needs, participatory roles, and subjectivities of women, as well as the ways of life of the community."*

Visits to territories where REDD+ projects are implemented in the country (even within the framework of the regulated market) have revealed that these resources sometimes do not reach the hands of the community, but rather are given to male leaders who use them for their personal benefit, such as buying motorcycles and even financing political campaigns, which has raised concerns among women in the communities. Despite the great difficulties in accessing REDD+ contracts, both Luz Mery Panche and María Rosario Chicunque, an Indigenous Kamnsá woman and founder of the Indigenous Women's Association (ASOMI), have pointed out that these agreements are usually signed by men, leaving aside the needs, participatory roles, and subjectivities of women, as well as the ways of life of the community. Indigenous men in their communities have increasingly been involved in acts of corruption, raising the suspicions of women in Indigenous territories and creating divisions within the community.

At the macro level, the picture also appears to be unfavourable for women. Despite the intention to portray the gender perspective in the United Nations REDD+ programmes, for example, with the publication of a 2011 report entitled The Business Case for Mainstreaming Gender in REDD+, the effective participation of women in these mechanisms is subordinated to a hegemonic "development" project linked to the commodification of the climate and the environment, instead of creating real benefits for the communities of women who live in and protect forests. As Hannah Yore analyses, this report "justifies the importance of a gender perspective based on the assumption that women are 'productive' and 'profitable' investments, rather than positing the idea that they have the right to express their views on what kind of development they want or whether they actually seek any kind of 'development' at all."

This climate regime contradicts the need to respect the traditional ways of life of Indigenous and rural women in biomes. Getting beyond the Western construction of feminine identities is another complex debate, one that involves problematising the multiple forms of colonisation and resistance in Latin America.

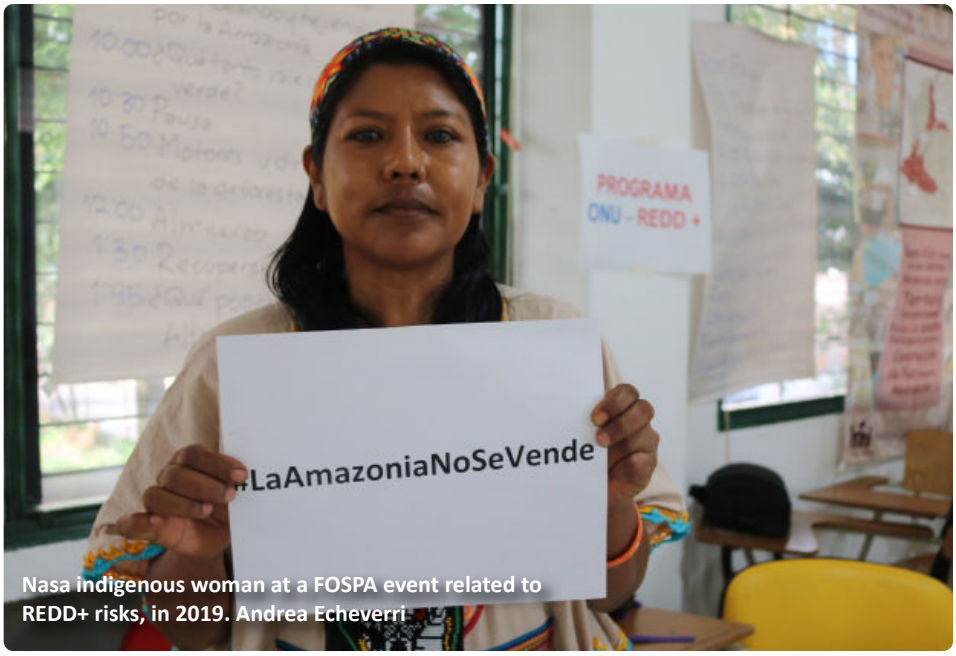
"The UN-REDD programme ignores how women in Latin America have resisted—and continue to resist—neoliberal development initiatives. Certainly, in order to get a better idea of what women want and need, one must contextualise how individuals construct their own identities, not only in terms of their gender, but in relation to their cultural practices, worldviews, and place-anchored lifeworlds," asserts Yore. Latin America is a complex territory, historically impacted by extractivism, which demands climate solutions based not on simplistic and commodified constructions, but on mitigation mechanisms built from the

communities, which include women as political subjects in resistance to any form of domination.

Communities' lack of information and understanding about carbon projects, and specifically of REDD+ projects, has been exploited by companies whose ecological, social, and even legal credentials are often questionable, framed in a voluntary carbon market that has proliferated unchecked in Colombia.

In this regard, two statements from government entities are enlightening. The first was issued by Corpoamazonia, the first environmental authority at the regional level in the Southern Colombian Amazon, which, in a public statement in 2019, recommended communities refrain from giving documentation, money, or information to cooperatives or NGOs for projects for the sale or purchase of carbon bonds due to the risk of fraud or scams. Most of these projects tend to be REDD+ projects. The second is found in a 2020 report on deforestation in the Amazon, the Comptroller General's Office published responses from the Ministry of Environment to citizen complaints about the REDD+ project in the "Selva de Matavén Unified Indigenous Reserve"—the largest REDD+ project in Colombia, covering over 1.5 million hectares. The project aims to mitigate greenhouse gas emissions. However, its claims to have reduced emissions equivalent to 19.6 million tons of CO2, certified by Verra, have been questioned as the calculations are based on a deforestation baseline higher than the rest of the Amazon.

The response of the Ministry of Environment is the following: "Given that it is a market, 'it does not have operating rules established in normative instruments or others of a binding nature issued by national governments,' so the National Government has no direct interference in this type of projects." This shows



Nasa indigenous woman at a FOSPA event related to REDD+ risks, in 2019. Andrea Echeverri

that the Colombian government has no control over the climate accounting of these projects, nor can it guarantee the rights of the population in the areas where they are located.

The Selva de Matavén project is indicative of the climate risks involved in this type of mechanism, and there are many other equally problematic projects, especially those where REDD+ carbon offset initiatives permit and promote the continuation of climate change-inducing activities. One of the most glaring examples of this is Glencore's open-pit coal mines in the Colombian Caribbean, the world's largest of their kind. Glencore's record of violence and human rights violations is well known, and the mines have devastated Indigenous and Afro-Colombian communities in the department of La Guajira, who suffer from a deadly shortage of water, among other deprivations.

Glencore claims "carbon neutrality" through the purchase of carbon credits from REDD+, allowing it to expand its geographical borders and continue contributing to the increase of emissions, as well as to the harmful socio-ecological effects at the local level. This particular case involves Glencore but is illustrative of a trend and a possibility for polluting companies across Colombia.

Although the carbon emission reductions are not real, the pollution is—as is the avoidance of real measures to address deforestation. In Colombia, deforestation has not been drastically transformed by REDD+ projects, whether they come from the state or private sector. Although over half of the country is covered by forests, between 1900 and 2018, more than five million hectares of forests disappeared. As a market-based mechanism that seeks to maximise profits or results, REDD+ deepens socio-ecological injustices, particularly in relation to cultural sovereignty, access to land, and benefit sharing. On one hand, it allows large polluters to greenwash their image and continue to expand, while, on the other, it imposes conditions on the peoples who inhabit the territories to be "conserved", and modifies their culture, which has been central to the care and preservation of forests and jungles.

Although successive Colombian government administrations have touted REDD+—and more broadly, the flexibility mechanisms—as a great success, the criticisms and fears it has raised can be seen in the reality on

the ground. Despite Colombia having created an avant-garde architecture to include its forests in carbon schemes, REDD+ has not managed to protect them, nor prevent the advance of fossil extractivism, which threatens the future of all forms of life. Unfortunately, the signs coming from the current government of Gustavo Petro do not suggest a shift away from the logic of the financialisation of nature that characterises REDD+ and its various mechanisms.

> *Concerned by the loss of identity, culture, and spirituality that has guaranteed their livelihoods and ways of life, women are defiantly opposing projects that dictate how to care for and understand their forests and territories.*

Nevertheless, objections to these types of projects, which years ago were limited to a few voices in the country, seem to have found new momentum thanks to the facts, and not in the misleading figures presented by REDD+ proponents. It is telling that women's voices have been at the forefront in different territories across the Caribbean, the Andes, and the Amazon. Concerned by the loss of identity, culture, and spirituality that has guaranteed their livelihoods and ways of life, women are defiantly opposing projects that dictate how to care for and understand their forests and territories.

For this reason, visits to socio-biodiverse territories in Colombia have allowed us to see how women and young people warn of the risks of conceding their lands of decades or hundreds of years to actors whose interests are unclear to them. They call attention to the need to strengthen spirituality to heal the current environmental wounds, for which they are often marginalised from community decision-making spaces. These determined voices are a call to the wisdom of asking for profound changes to a system that colonises women, nature, and peoples. We join these women in their cry: "The water is not for sale, the land is not for sale, the air is not for sale!"

Members of the Agua Negra community

are facing eviction due to a proposed REDD+ carbon offset project on the Indigenous Territory of the Coreguaje Indigenous People in Colombia. Obtaining clear information about the project, developed by the Allcot Group, has been difficult for the community and activists. Questions have been raised over the contracts drawn up by Allcot, which appear to sign over access to Indigenous land to Allcot and its partners and place the blame for deforestation on the shoulders of the Coreguaje Indigenous People, who are considered at risk of physical and cultural disappearance. The current status of the project is unclear with some Coreguaje authorities reportedly rejecting Allcot's approach.

Coreguaje Indigenous Territory: Agua Negra. REDD+ projects have been carried out in this area. 2021.

Global Resistance to False Solutions

How powerful interests ignore the roots of the climate crisis, and what people are doing about it

By Megan Morrissey, Global Forest Coalition

False solutions to the climate crisis fail to address the problems at hand and deceive people into thinking they make a difference, often under manipulative branding by corporations and governments. Sadly, they trigger further problems that worsen climate change and biodiversity loss, displacing communities and destroying livelihoods.

This fact is well known by the member groups of the Global Forest Coalition around the world. They have seen first-hand the impacts of greenwashing, where "attractive" projects devised in the North have devastated local environments and communities.

To benefit from their expertise, we held a series of webinars demystifying false solutions to the climate crisis as they are experienced on the ground and looking at alternatives in Latin America, Asia, and Africa. Three multilingual gatherings were held in August and September of 2022 with experts and activists from the three regions, who shared their perspectives with us. This article gathers insights from these sessions.

Defining False Solutions

False solutions to the climate crisis are numerous and tough to define succinctly, but they are unmistakeable—we know them when we see them. One clue is that they are embraced by powerful actors like oil company executives. Participants in the webinars had common and complementary ideas about what false solutions are, and offered similar stories about the damage they have done to communities and societies across the three continents.

As a definition of false solutions, Stephen Leonard of Climate Justice Programme in Australia offered the following: "[False solutions are] solutions that pretend to address the key issues, while in reality, only perpetuating the unsustainable status quo, and even worse, 'solutions' that may affect and violate even more of Nature's Rights." He outlined five core elements of false solutions:

- They often represent the interests of large corporations and high-emitting countries
- They perpetuate climate change, biodiversity destruction, and the erosion of people's rights
- They cause displacement and rights violations for Indigenous Peoples and local communities
- They are covered up by certification schemes, standards and criteria that promote environmentally damaging activities as "sustainable"
- They don't address the root causes of climate change, and can worsen it

False solutions ignore the social, economic, and environmental situations of the community, and particularly women, according to Titi Soentoro of Aksi! for Gender, Social and Ecological Justice in Indonesia. They violate people's rights to information, decision-making, a healthy environment, access to water, and other basic household necessities. This is why there will be no climate justice without gender justice, she said: "Real solutions need to pay attention to the situations of women."

To explain false solutions, Catalina Gonda of Fundación Ambiente y Recursos Naturales (FARN) in Argentina used the metaphor of a solution versus a suspension in chemistry. A solution is a homogeneous mixture of two or more substances, but in a suspension, the substances do not blend (picture a layered cocktail). False solutions to the climate crisis are like these "suspensions," she said, because they treat issues separately and ignore the interrelatedness and interdependence

Photo: Federation of Organs for Social and Educational Assistance (FASE), Brazil

of the components of our complex planetary system. On the other hand, real solutions take a holistic approach to concerns such as ecosystems and livelihoods. Gonda warned that we should be wary of:

- Actions that only seek to modify some elements of the system and avoid structural change
- Actions that are presented as a panacea
- Actions that compromise or harm other parts of the system
- Actions that rely on prospective technologies or far-off future benefits
- Actions that perpetuate structural inequalities

The multiple social and environmental crises we are experiencing cannot be addressed separately, and their complexity requires a systemic approach and structural change, Gonda said. False solutions avoid such deep shifts in how we interact with the planet and instead *prop up existing power relations*. This is clearly seen in the following examples of specific false solutions that were provided in the sessions.

Examples from the Global South

Nature-Based Solutions are often "a wolf in sheep's clothing," Stephen Leonard said, because they lead to monoculture tree plantations and other old schemes with new branding. The science shows that plantations have little to no mitigation potential compared to other approaches such as the protection and restoration of natural ecosystems.

Bioenergy is one such "solution" that backfires; it uses trees in similar ways to coal, and a lot of biofuel comes from monoculture tree plantations that put more stress on land and squeeze out small farmers. The international market around bioenergy moves finance away from renewables and diverts attention away from phasing out fossil fuels. For example, there is a trend toward the continued use of coal plants and upgrading them to burn biomass—a "dodgy deal" that keeps the same dirty infrastructure in place.

REDD is another example of the ways that powerful interests have found to avoid tackling the real roots of the climate crisis, said Andrea Echeverri of Censat Agua Viva in Colombia. Colombia has been a fertile ground for REDD and REDD+ projects, to the detriment of communities and forests (see her article in this issue). REDD puts a price on forests, and has serious climate risks and gender impacts, she warned.

Carbon markets that focus on trading carbon credits force the countries of the Global South to deal with problems caused by the North and do the actual work to meet climate goals, said Maureen Santos of the Federation of Organs for Social and Educational Assistance (FASE) in Brazil. They also fail to consider environmental integrity, which is about all ecosystems and all populations in the territories.

Market mechanisms like those embraced at COP21 in Paris fail to address rights issues and reduce the climate debate to the issue of emissions, and you can't translate the complexity of the climate crisis into the terms of carbon accounting, Santos said. Similarly, Echeverri pointed out that "we've all had to learn to "speak carbonese" (a phrase borrowed from Brazilian researcher Camila Moreno) to discuss the climate crisis in terms of units of carbon when it is in fact a social, political, and environmental crisis.

Carbon offsetting through reforestation and other REDD projects facilitates land grabbing, explained Vanessa Cabanelas of Justiça Ambiental in Mozambique. In countries where high rates of poverty exist alongside abundant natural resources, governments court foreign direct investment from the Global North in the form of large-scale, land- and resource-intensive projects like monoculture plantations, dams, and fossil fuels exploitation. The powerful international financial institutions that provide half of the budget in a country like Mozambique support these types of extractive projects, and the country

has reviewed the national land policy and forest policy to accommodate false solutions involving offsetting and make it more favorable to companies like Portucel, Cabanelas said.

Net zero is *not zero*, several panelists in the workshops pointed out, although it's often portrayed as being zero. This is a popular offsetting approach that was advanced in the Paris Agreement. Stephen Leonard explained that net zero gives the false sense that you can balance out rising emissions with CO2 removals by sinks, which in fact are not permanent, because "as we know, forests burn, ecosystems degrade, especially in a warmer world. So those removals become what's called reversals and those emissions go back into the atmosphere."

Geoengineering technologies aim to remove greenhouse gases from the atmosphere, explained Neth Daño of ETC Group in the Philippines, through methods that focus on carbon dioxide removals or CDRs. Three big CDR methods that are getting a lot of attention from corporations are Direct Air Capture (to suck out carbon or methane from the atmosphere), Carbon Capture and Storage, and Bioenergy with Carbon Capture and Storage (BECCS) to burn biomass, capture the carbon, and store it in geological formations—with devastating impacts on land, water, and biodiversity.

Removals are not mitigation, Daño warned, because they are not about preventing or reducing greenhouse gas emissions, but rather, allowing them to continue. However, the terms have been wrongly used interchangeably, even by negotiators at UN climate talks.

Photo: Federation of Organs for Social and Educational Assistance (FASE), Brazil

What's Beneath the Surface

False solutions are the façade that neoliberal governments and corporations use to continue profiting and polluting, and they deepen the climate crisis, affecting the most vulnerable populations, including girls and women—particularly peasant, Indigenous, Afro-descendant, and immigrant groups and others that are historically excluded and discriminated against.

This argument was presented by Johanna Molina of Colectivo VientoSur in Chile, who gave an ecofeminist analysis of the impacts of false solutions. She explained how this situation leads to poverty, inequality, and forced migration, which adds to the obstacles faced by feminised bodies.

In the colonialist and patriarchal capitalist system, which transforms all of life into merchandise and puts it at the service of capital, we usually only see the "tip of the iceberg," or the masculinised space of the market, Molina said. Beneath the surface is the bulk of the activity that sustains the system and life as a whole: relationships, processes, the reproductive sphere, domestic and care work, and community participation—all that which doesn't pass through the market but is required to sustain it.

This non-monetary work is devalued and made invisible. Yet it is the "bulk of the activity" which ensures daily survival, and it is traditionally in the hands of women and feminised bodies, as is taking care of nature, seeds, gardens, and forests, Molina said. This is related to the sexual division of labor in a patriarchal system, which assigns greater value to men's work. In this scenario, the relationship with nature is one of exploitation and domination, and women are similarly oppressed through the domination of their bodies, work, and territories.

What does this have to do with false climate solutions? Everything, in a way. We know that these "dirty tricks" avoid addressing the climate crisis and even worsen it, making daily survival more difficult and increasing the burden on the exploited. Care work becomes difficult because of land grabbing and water scarcity due to its indiscriminate use in mega-projects like forest

Photo: Federation of Organs for Social and Educational Assistance (FASE), Brazil

plantations that replace native forests and arable land. It becomes harder to produce food, there is chemical poisoning, forest fires, and increased gender-based violence. In Chile, forestry companies like Arauco (which was certified as "carbon neutral" in 2020) have taken 90% of the territory of the Curanilahue community, causing dispossession and poverty.

Looking at gender and energy projects, Titi Soentoro shared women's stories from Indonesia, including from a village in Central Java that had its drinking water polluted and incomes and livelihoods destroyed by a geothermal project. A local woman said: "We are no longer able to make ends meet. My household burden became heavier… Depriving us of clean water is violence against us, the women and girls."

This is happening all over Latin America, Africa, and Asia. As Molina explained, water scarcity drives food insecurity, women must go further to find water, rural schools are closed, there is forced migration and loss of cultures and livelihoods. This inflicts illness, fear, and stress, with higher rates of chronic illness, birth defects, and poisoning—what the patriarchy does to our bodies resembles what the extractivist economy does to the land. Women and nature get the same treatment from extractivist activities, she explained, and therefore, the female body and nature have a common struggle for liberation from domination and the violence of the patriarchy.

Real solutions

The world is facing a persistent conflict between capitalist accumulation and sustainability that affects how we organise ourselves as a society, because we are deeply eco-dependent and interdependent, panelists like Molina reminded us. It's no surprise, then, that women in their life-sustaining roles have often been at the vanguard of proposing real solutions, like food sovereignty and agroecology, local economies that are feminist and solidarity-based, recovering ancestral wisdom, and finding other ways to organise ourselves, with self-determination for communities.

Real solutions exist, and several panelists described their common characteristics. Peter Riggs of the Climate Land Ambition and Rights Alliance (CLARA) explained that *real climate solutions* have the following positive impacts:

- They strengthen land rights for communities
- They increase local community control
- They increase biodiversity
- They allow for the regeneration of natural forests
- They protect livelihoods

Rights-based solutions, he said, are the true and necessary solutions. The idea of ecosystem-based approaches is now in the Convention on Biological Diversity and should be part of the climate discussion. In the face of ill-informed Nature-Based Solutions, Riggs said, "we respond with protect, restore, and sustainably manage nature"—the three-step process that CLARA advocates for and uses as a barometer for measuring what a real solution is. "When they talk about carbon markets, we talk about non-market approaches, community-led solutions, the solidarity economy, and meeting the SDGs," he said.

We need transformative economies that move away from extractive practices and towards a regenerative and low-carbon economy, Titi Soentoro indicated. It's not just about changing our energy practices, but a fundamental transformation that focuses on the rights of the marginalised and allows communities to determine their energy needs. Care work must be recognised and redistributed in communities, and women's wisdom and experiences must be the basis of decisions regarding climate, development, or investment projects.

Real solutions deal with real people on the ground who are the traditional guardians of ecosystems and biodiversity, said Pasang Dolma Sherpa of the Center for Indigenous Peoples' Research and Development (CIPRED) in Nepal. She pointed out that many negotiators and agencies still aren't sensitised to the role of women and Indigenous Peoples and their contributions to protecting

Photo: Federation of Organs for Social and Educational Assistance (FASE), Brazil

biodiversity. They ignore on-the-ground realities. For that reason, women, Indigenous Peoples and local communities must be involved in national climate plans, NDCs, and climate communication. The rights, knowledge, skills, and traditional livelihoods of Indigenous Peoples must be protected and enhanced, for they are the main protectors of the earth's fragile ecosystems. In Asia alone, 150 million people live in protected areas.

The question of multilateral spaces was also raised by Martin Vilela of Corporate Accountability, who spoke about the corporate capture of UN climate negotiations and how this has fueled false solutions. Corporations are aware of climate change and put experts in the negotiations to guide the talks and protect their interests. UN conferences are increasingly exclusive spaces that are hard to access and understand, and civil society has less and less of a role. Some campaigns of note that are working against this are Make Big Polluters Pay and Kick Big Polluters Out.

The UNFCCC has the stated aim of helping governments and social actors to jointly address dangerous human interference with the climate system, which means the root causes of the climate crisis and the voices of those most affected must be included in the negotiations and decisions. A real global response to climate change has to include more effective and equitable participation of Indigenous peoples, rural women and other marginalised rightsholder groups and fewer corporations. An effective feminist, decolonial and intersectional approach in multilateral implementation mechanisms allows us to address power imbalances and structures of privilege in environmental policymaking.

Another UNFCCC climate conference is fast approaching: COP27 in Egypt. GFC's Kwami Kpondzo of Togo noted that none of the climate COPs held on the continent have been rooted in the realities and needs of Africans. An "African" COP27, he said, should limit the participation of false solutions promoters and polluters and provide more space for civil society, youth activists, and Indigenous and local communities affected by the climate crisis. We need more and better critiques in the mainstream media of these false solutions being placed on the negotiating table. We also need more events and joint actions on real solutions, he added.

The Way Forward

Across three continents, GFC member organisations were united in their condemnation of false solutions to the climate and biodiversity crises.

Real solutions are not quick fixes, they recognized, but they are the way forward. To counter the seductive narrative of false solutions, speakers suggested that we need to highlight the importance of restoring natural forests and ecosystems, work more on recognising the rights of Indigenous Peoples and women, emphasise the adaptation needs of communities (shifting the narrative from mitigation), and elevate systems-change initiatives like the Fossil Fuel Non-Proliferation Treaty.

Real solutions involve guaranteeing collective rights to forests, land, and water; conserving and protecting biodiversity and ecosystem functions; and ensuring gender, climate, and social justice.

These are ambitious but worthy goals.

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Demystifying False Climate Solutions and their Imapacts:

Perspectives from
The Asia-Pacific Region
The African Continent
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