CFA Newsletter

No.102 September 2023 ISSN 1750-6417

Contents:

Lead
- How forests can cut carbon

Forest Scenes
- Critics slam BC's logging transparency
- PNG acts against logging tax cheats
- Costs to protect forests falls on local people
- Chocolate production taking its toll on West African forests
- US forests losing ability to hold carbon
- Queensland native forestry can help with global goals
- Protected forests and climate goals
- Drought and conflict are hurting Kenya's forests
- Forests play critical role in Jamaica
- Electric timber trucks in Scotland
- Deforestation surges despite pledges
- Impact of climate change on Africa's forests

Publications
- CITES as a tool for sustainable development
- Forests and climate change
- Forests and human health

Around the World

CFA Newsletter
is the newsletter of the Commonwealth Forestry Association

Editor: Alan Pottinger

Contact: The Crib, Dinchope, Craven Arms, Shropshire SY7 9JJ, UK

Tel: + 44 (0) 1588 672868

Email: cfa@cfa-international.org

Web: www.cfa-international.org

The views expressed are not necessarily those of the CFA.

Publication of the CFA Newsletter is supported by a bequest from Jim Ball

How forests can cut carbon, restore ecosystems, and create jobs

A new analysis describes steps planners can take to make forests more effective "natural climate solutions"

Reforestation and afforestation are "natural climate solutions" that can help cut carbon, restore ecosystems, create jobs, and provide other environmental and social benefits. A new study explores how to make forestry-based NCS projects more effective (Photo courtesy of the World Business Council for Sustainable Development)

To limit the frequency and severity of droughts, wildfires, flooding, and other adverse consequences of climate change, nearly 200 countries committed to the Paris Agreement's long-term goal of keeping global warming well below 2 degrees Celsius. According to the latest United Nations Intergovernmental Panel on Climate Change (IPCC) Report, achieving that goal will require both large-scale greenhouse gas (GHG) emissions reduction and removal of GHGs from the atmosphere.

At present, the most efficient and scalable GHG-removal strategy is the massive planting of trees through reforestation or afforestation – a "natural climate solution" (NCS) that extracts atmospheric carbon dioxide through photosynthesis and soil carbon sequestration.

Despite the potential of forestry-based NCS projects to address climate change, biodiversity loss, unemployment, and other societal needs – and their appeal to policymakers, funders, and citizens – they have yet to achieve critical mass, and

often underperform due to a mix of interacting ecological, social, and financial constraints. To better understand these challenges and identify opportunities to overcome them, a team of researchers at Imperial College London and the MIT Joint Program on the Science and Policy of Global Change recently studied how environmental scientists, local stakeholders, and project funders perceive the risks and benefits of NCS projects, and how these perceptions impact project goals and performance. To that end, they surveyed and consulted with dozens of recognized experts and organizations spanning the fields of ecology, finance, climate policy, and social science.

The team's analysis, which appears in the journal *Frontiers in Climate,* found two main factors that have hindered the success of forestry-based NCS projects.

First, the ambition – levels of carbon removal, ecosystem restoration, job creation, and other environmental and social targets – of selected NCS projects is limited by funders' perceptions of their overall risk. Among other things, funders aim to minimize operational risk (e.g., Will newly planted trees survive and grow?), political risk (e.g., Just how secure is their access to the land where trees will be planted?); and reputational risk (e.g., Will the project be perceived as an exercise in "greenwashing," or fall way short of its promised environmental and social benefits?). Funders seeking a financial return on their initial investment are also concerned about the dependability of complex monitoring, reporting, and verification methods used to quantify atmospheric carbon removal, biodiversity gains, and other metrics of project performance.

Second, the environmental and social benefits of NCS projects are unlikely to be realized unless the local communities impacted by these projects are granted ownership over their implementation and outcomes. But while engaging with local communities is critical to project performance, it can be challenging both legally and financially to set up incentives (e.g., payment and other forms of compensation) to mobilize such engagement.

"Many carbon offset projects raise legitimate concerns about their effectiveness," says study lead author Bonnie Waring, a senior lecturer at the Grantham Institute on Climate Change and the Environment, Imperial College London. "However, if nature climate solution projects are done properly, they can help with sustainable development and empower local communities."

Drawing on surveys and consultations with NCS experts, stakeholders, and funders, the research team highlighted several recommendations on how to overcome key challenges faced by forestry-based NCS projects and boost their environmental and social performance.

These recommendations include encouraging funders to evaluate projects based on robust internal governance, support from regional and national governments, secure land tenure, material benefits for local communities, and full participation of community members from across a spectrum of socioeconomic groups; improving the credibility and verifiability of project emissions reductions and related co-benefits; and maintaining an open dialogue and shared costs and benefits among those who fund, implement, and benefit from these projects.

"Addressing climate change requires approaches that include emissions mitigation from economic activities paired with greenhouse gas reductions by natural ecosystems," says Sergey Paltsev, a co-author of the study and deputy director of the MIT Joint Program. "Guided by these recommendations, we advocate for a proper scaling-up of NCS activities from project levels to help assure integrity of emissions reductions across entire countries."

Mark Dwortzan | Joint Program on the Science and Policy of Global Change
news.mit.edu

Forest Scenes

In a historic win, Papua New Guinea acts against logging tax cheats. What happens next?

Papua New Guinea's government has taken big, bold action against a logging company.

The logging sector in Papua New Guinea (PNG) is infamous for its destruction of the country's forests – and with them, many Papua New Guineans' livelihoods. Now, following years of working with our partners to expose these abuses, the country's tax authority has imposed a historic £31 million assessment against a logging operator for tax evasion. It's amazing news that builds on years of investigations and campaigning – though our colleagues in PNG caution that much more needs to be done to support forest communities.

First, some background. Lying just north of Australia, the island nation of PNG is part of the world's third-largest rainforest. PNG is unusual in that local communities' land rights are codified in the national Constitution and in law. Most of the country's some 10 million people live in rural communities and depend directly on their environment for some or all of their sustenance, livelihoods, and cultural traditions. PNG is also a "megadiverse" country, home to endemic rarities like birds of paradise and tree kangaroos, many of which rely on those forests.

But the PNG government has tended to ignore its peoples' rights when it comes to forests. Time and again, our reporting – and that of many other organizations – has shown that loggers and agribusinesses face virtually no consequence if they violate rights and laws. Over the last decade of our work with PNG

Global Witness visits and documents a community's struggle against logging and palm oil developments that threaten the land and life of Papua New Guinea's communities.

activists and civil society, we've documented many logging and palm oil companies appearing to break national laws, stripping communities of their forests, and neglecting worker safety on plantations, leading to multiple deaths. Many of these companies have ties to international financiers and global brands.

The first of many?

Reporting by the Oakland Institute has alleged that there has been systematic tax evasion in the PNG logging sector for years through claims of huge losses, at immense cost to PNG taxpayers. We don't yet know the identity of the company targeted in this first audit, but Oakland Institute reporting has undoubtedly proved crucial to the PNG government's audits of logging companies, which are focused on tax evasion.

Internal Revenue Commissioner (IRC) General Sam Koim, who announced the audit findings on June 26, said: "The logging sector in PNG has long been suspected of involvement in tax evasion. Instead of turning a blind [eye], we have initiated over twenty audits since I took office... I am pleased to report that this is the first outcome of those audits."

Koim told us in an email he believed this tax assessment was the first such action against a logging company.

Much more to do

The news has been greeted with guarded optimism by some quarters of PNG civil society. Eddie Tanago, Act Now! campaign manager, told us: "We welcome the news and IRC and particularly Sam Koim must be congratulated for a job well done. But as yet, the monies remain unpaid and still another nineteen audits to be completed. Sadly, the news does nothing to stop the ongoing illegal logging of PNG forests."

Indeed, PNG forest cover loss spiked in 2022 after several years of improvements. And, even if the government is successful in recovering the unpaid taxes, the money will not reach the communities whose forests have been destroyed. Nor can a fine bring the forests back.

Instead, the PNG government should take urgent action now to safeguard community land rights and forests. It can begin by freezing the issuance of all new logging permits and cancelling existing ones, except where the holder can prove it complies with all national, customary, and international laws and has obtained free, prior and informed consent from local communities in order to operate.

And, crucially, it must ensure the other audits into logging companies are resourced, completed, and their outcomes made public. Under Koim's direction, the IRC has shown that the PNG government has the will to act on behalf of its people and forests. This is a first; it cannot be the last.

globalwitness.org

Cost to protect globally important forests falls disproportionately on those living closest

People living near the Eastern Arc Mountains use poles collected from the forests to build their homes. (Credit: Marije Schaafsma)

Local communities are not incentivised to protect tropical forests that are hugely valuable for global climate regulation, a new study has found. International funding could help smallholder farmers to boost yields on their existing land to incentivise long-term forest protection.

Biodiversity conservation delivers enormous global economic benefits, but net benefits vary widely for different groups of people – with international stakeholders gaining most, and local rural communities bearing substantial costs.

These are the findings of a decade-long study into the costs and benefits of conserving the forests and woodlands of Tanzania's Eastern Arc Mountains – a global biodiversity hotspot estimated to provide nature-based benefits to the world equivalent to US $8.2 billion.

Climate regulation is the primary global benefit from protecting large areas of tropical forest. And although the people living near these forests feel some of this benefit, they also bear substantial conservation costs – particularly through the loss of potential income gained by clearing trees to expand farming.

"International gains from the conservation of this biodiversity hotspot far outweigh the gains to local communities directly involved in their conservation," said Andrew Balmford, Professor of Conservation Science at the University of Cambridge and senior author of the paper.

He added: "Local rural communities are not incentivised to protect globally important natural habitats. Understandably, their need to make a basic living– which often involves clearing forests and woodlands for agriculture, timber and charcoal – has to come first."

Intact tropical forests act as 'carbon sinks', removing carbon dioxide from the atmosphere and helping to regulate the global climate. Conversion of these natural habitats to agricultural land results in vast carbon emissions.

The researchers estimate that international funding of US $2 billion is needed to support people living near forests and woodlands of global importance in Tanzania's Eastern Arc Mountains. Investments could support smallholder farmers to enhance the productivity of their existing farmland, reducing the need to clear more trees to meet the growing local demand for food.

"Investments that help farmers boost yields on their land would potentially provide a long-term solution to the pressure

on natural habitats, without compromising local food production or livelihoods," said Pantaleo Munishi, Professor of Ecosystems, Biodiversity and Climate Change Management at Sokoine University of Agriculture, Tanzania, a co-author of the study.

He added: "Farmers degrade natural resources in search of livelihood options, due to declining productivity on land they own."

The study also found that the greatest overall global economic gains come from the most biologically important sites – but these are also most costly for locals to conserve. This means that without financial support, the incentives to clear natural habitats are highest in the most biologically important places.

"If we're serious about retaining these globally important places for society as a whole, the international community ought to be contributing more and not relying on local people to soak up these costs," said Dr Phil Platts at the University of York and BeZero Carbon, first author of the report.

He added: "Although vastly more money is required for the conservation of key regions than the international community is spending at the moment, in the wider scheme of things it's entirely doable."

"The huge demand for cropland in Tanzania, not just from smallholders, leads to clearing forests and woodlands – many of which aren't formally protected. Smallholders are pushed further and further into the mountains because they need to make a living," said Dr Marije Schaafsma at Vrije Universiteit Amsterdam, one of the study's lead authors.

This is the largest and most detailed study of its type ever undertaken in the tropics. The results are published in the journal *Environmental and Resource Economics*.

Tanzania's Eastern Arc Mountains are considered a global priority for conservation, and following extensive forest clearance, local and national governments have established a network of protected areas to help to conserve the remaining biodiversity and sustain ecosystem services.

The Eastern Arc is home to almost 500 species of plants not known to exist anywhere else in the world and many unusual animals including a tree-dwelling crab, and a monkey previously unknown to western science called the kipunji.

As well as supporting biodiversity, the forests draw carbon dioxide from the atmosphere, are home to widely used medicinal plants, provide drinking water to major cities, and support national and international tourism. But conserving them also leads to loss of potential income from agriculture and timber sales, and incurs significant management costs.

"Tropical forests should be viewed as essential global infrastructure, and richer countries have a responsibility to step up and enable their conservation in an equitable way," said Professor Brendan Fisher at the University of Vermont, a co-author of the study.

eurekalert.org

How the world's chocolate habit has taken a massive toll on the cocoa-growing forests of West Africa

The land area devoted to cocoa is enormous – at seven million hectares of plantations – across the world's major producing countries: Ghana and the Ivory Coast.

Chocolate sales have boomed in recent months. As the cost-of-living crisis bites, consumers are increasingly reaching for chocolate as a simple and affordable pleasure.

The most important ingredient in chocolate is cocoa beans, which come from plants grown in the tropics. About 70% of the world's cocoa comes from West Africa. The countries of Côte d'Ivoire (Ivory Coast) and Ghana are two of the biggest producers.

Meeting the world's insatiable appetite for chocolate has wrought a huge environmental cost, as the incredibly rich and diverse rainforests of West Africa are razed to make way for cocoa farms.

Research sheds new light on the problem. By generating a new high-resolution map of cocoa growing areas in Ghana and Côte d'Ivoire, we found the area under cocoa production is truly enormous – and may be associated with up to 37% of forest loss in protected areas.

Price of cocoa farming

The Upper Guinean forests of West Africa have been classified as a "global biodiversity hotspot", due to their exceptional concentrations of plant and animal species found nowhere else on Earth. But much of this forest has now been destroyed.

Since 1950, Côte d'Ivoire has lost up to 90% of its forest cover and Ghana has lost 65%. Cocoa has been a primary driver of this deforestation, together with other crops, mining and logging.

But the exact contribution of cocoa plantations to the problem is not well understood. This is due in part to a lack of an accurate, high-resolution map of cocoa-growing areas.

Without a map, we don't know where the chocolate we consume comes from. In particular, we don't know whether the cocoa was grown in formerly forested areas, or even illegally in protected areas.

What we did

My colleagues and I set out to determine the location and extent of cocoa plantations by using artificial intelligence.

We used a type of artificial intelligence known as a "neural network", which allows computers to recognise and predict patterns in data. When a neural network is trained on satellite images showing different land uses, it can apply this "understanding" to identify the same land uses in satellite images of other geographic areas.

Breaking cocoa pods at a farm in Sinfra in the Ivory Coast in April. (Photo: Reuters)

In our study, we trained the neural network to recognise cocoa plantations across Côte d'Ivoire and Ghana. We did this using satellite images, together with the known locations of more than 100,000 cocoa farms.

We then checked the accuracy of the information provided by the neural network, by engaging field teams to confirm the results at 2,000 random locations on the ground.

This combination of advanced technology and hard field-work allowed us to create the first high-resolution map of cocoa production across West Africa. And what the map tells us is worrying.

A cocao cultivator from the Ivory Coast. (Credit: KokoDZ, CC BY-SA 4.0, via Wikimedia Commons)

What we found

We found that the land area devoted to cocoa is enormous, comprising more than seven million hectares of plantations across both countries. The result is far greater than official figures – up to 40% higher in Ghana's case.

What's more, much of the cocoa plantation area exists in vast areas of what was once native forest. And more than 1.5 million hectares of land under cocoa production is located in protected areas.

Deforestation in protected areas is a major issue globally. Given where we found cocoa growing, and where forest loss has been observed, we estimate more than 37% of deforestation in protected areas can be linked to cocoa production in Côte d'Ivoire. For Ghana, the figure is 13%.

How do we fix this?

Our map demonstrates the massive role that cocoa may be playing in forest destruction in West Africa, including in protected areas.

This is a complex problem, with no easy fix. Cocoa is grown by an estimated two million mostly small-scale farmers, who typically live below the poverty line on less than US$1 a day. Expanding their cocoa farms into forest is one way farmers and their families can maintain or improve their livelihoods.

To fix this problem, we must help farmers manage existing farms in a more productive and sustainable way. Stronger law enforcement is also needed, to safeguard protected areas. Both will require action from governments and companies.

More money from chocolate sales should end up with the farmer. And consumers may also have to pay more for their chocolate.

Only determined changes on all these fronts will preserve the remaining forests of Côte d'Ivoire and Ghana.

Wilma Hart

Postdoctoral Research Fellow, School of Biological Sciences, The University of Queensland

Theconversation.com

Forests are losing their ability to hold carbon

A new USDA report finds forests could become a major emitter of carbon by 2070

Dead trees killed by a forest fire a year earlier in the Manti-La Sal National Forest in the La Sal Mountains near Moab, Utah. Wildfires are making forests less able to absorb carbon, a new Agriculture Department report says. (Credit: Jon G. Fuller/VWPics/Universal Images Group via Getty Images)

U.S. forests could worsen global warming instead of easing it because they are being destroyed by natural disasters and are losing their ability to absorb planet-warming gases as they get older, a new Agriculture Department report says.

The report predicts that the ability of forests to absorb carbon will start plummeting after 2025 and that forests could emit up to 100 million metric tons of carbon a year as their emissions from decaying trees exceed their carbon absorption. Forests could become a "substantial carbon source" by 2070, the USDA report says.

U.S. forests currently absorb 11 percent of U.S carbon emissions, or 150 million metric tons of carbon a year, equivalent to the combined emissions from 40 coal power plants, the report says.

The prediction suggests that the loss of forests as a natural carbon absorber will require the U.S. to cut emissions more rapidly to reach net zero, said Lynn Riley, a senior manager of climate science at the American Forest Foundation, a nonprofit conservation advocate not involved in the USDA report.

"Ten percent of our domestic emissions. That is a really significant portion," Riley said. "As we work to decarbonize … forests are one of the greatest tools at our disposal. If we were to lose that, it means the U.S. will contribute that much more" in emissions.

The USDA report published Monday assesses and predicts the extent of renewable resources provided by the nation's forests and undeveloped landscapes, including farmlands, wetlands and grasslands. The decennial report is mandated by Congress, which in 1990 added a requirement to study climate impacts on forests and rangelands.

The loss of carbon absorption is driven in part by natural disasters such as wildfires, tornadoes and hurricanes, which are increasing in frequency and strength as global temperatures rise. The disasters destroy forestland, disrupting their ecosystem and decreasing their ability to absorb carbon, Riley said.

Development in forested areas, which the report projects will continue to increase, is having the same effect as people increasingly move to the so-called wildland urban interface.

Aging forests also contribute. Older, mature trees absorb less carbon than younger trees of the same species, and the U.S. forests are rapidly aging, the report found.

"Naturally, the forest is going to reach a saturation point where it plateaus in how quickly it is sequestering carbon from the atmosphere," Riley said, explaining why older forests often absorb less carbon.

More aggressive forest management can help by cutting down a small portion of aging forests to make ways for younger trees that absorb more carbon, Riley said. A thorough study of each forest should be done before removing older trees, Riley said, comparing forest management to prescribing the proper drugs to a patient.

The report considered a range of factors such as the speed of global warming, population growth and energy transition in making dozens of projections on forest size, land use change, wildfire risk, and the ability of forests to absorb and store carbon.

scientificamerican.com

Queensland native forestry can help achieve global environment goals

Research conducted by The University of Queensland has revealed that Queensland native forestry, including timber harvesting, could actually help conserve biodiversity and mitigate climate risks

Dr Tyron Venn from UQ's School of Agriculture and Food Sustainability reviewed more than 350 publications, studying the ecological and economic impacts of Queensland native forest management, which includes everything from fire management to timber harvesting.

"Stopping forestry in Queensland's native forests may sound like a positive outcome for the environment, but the research suggests that it would further shift our impacts offshore and increase carbon emissions, while generating little benefit for biodiversity conservation within Australia," Dr Venn said.

Since the 1990s, Australia's annual harvest of native hardwood sawlogs has dropped by 2.2 million cubic metres, as large areas of state-owned native forests have been declared National Parks or other types of conservation reserves in which harvesting is not allowed.

"Over the same time period, imports of hardwood products from less-well managed forests in Asia and the Pacific increased by a similar amount," Dr Venn said.

"In many developing countries, large international timber companies operate with disregard for the environment and often have negative impacts on traditional forest communities."

"Without realising it, many Australians buy products made with foreign timbers and threaten conservation efforts for the orangutan, Malayan tiger, Asian sun bear and Asian tapir.

The research found that Queensland's low-intensity forestry management techniques are informed by science to minimise environmental impacts.

Queensland law allows selection harvesting in some of the state's public and private native forests, which typically removes 10 to 20 trees per hectare every 20 to 40 years.

Strict rules regulate how this is conducted, such as by requiring minimum retention of trees of different sizes, including large old trees with hollows.

"Selection harvesting can restore wildlife habitat, promote and conserve floristic diversity and improve the resilience of large trees against climate change and bushfire," Dr Venn said.

Dr Venn said forestry is the twenty-fifth most important threat to biodiversity in Australia, and forestry in Queensland impacts only 0.8 per cent of Australia's 1,795 threatened species.

"There are 24 more important threats we should be focused on, including invasive weeds, invasive predators, urban development, and reduced fire frequency or intensity" he said.

Dr Venn said Queensland should continue to manage some of its forests for wood production, as recommended by the Intergovernmental Panel on Climate Change (IPCC).

"The IPCC has long argued that sustainably managing forests to produce timber, fibre and energy will generate the largest carbon sequestration benefit from forests," he said.

"If Queensland reduced its native forestry in the near future, the knock-on effect would be negative impacts on global efforts to conserve biodiversity and reduce carbon emissions due to increased consumption of timber imports and carbon polluting substitutes.

"Queensland can maximise its contribution to global biodiversity and climate goals by continuing to manage some of the state's native forests for timber production."

Journal Reference:

Tyron J. Venn. Reconciling timber harvesting, biodiversity conservation and carbon sequestration in Queensland, Australia. *Forest Policy and Economics*, 2023; 152: 102979 DOI: 10.1016/j.forpol.2023.102979

sciencedaily.com

Why protected forests are critical to reaching climate goals

- **Protected forests absorb and capture carbon more than new technologies attracting billions in funding.**
- **The voluntary carbon market could be a crucial source of financing to help bridge resourcing gap for protected forests.**
- **Data shows that protected forests store 28% more carbon than ecologically similar but unprotected forests.**

In the race to net zero, public and private funders are flocking to experimental technologies, such as direct air capture, to remove carbon from the atmosphere, investing tens of billions into mechanisms that could fend off the worst climate outcomes. The excitement is understandable; if there is a moonshot solution to be found, we're fuelling the rocket ship.

But here's the reality – right now, these technologies sequester negligible amounts of carbon. The 30 carbon capture and sequestration (CCS) facilities currently in operation capture just 42 megatons per year, roughly one-tenth of 1% of annual human emissions. Nealy all of the carbon that humans are able to sequester in a year comes through land management – chiefly forest protection.

Protected areas yield well-documented benefits for wildlife and biodiversity. But a new study from Conservation International and three research universities puts a finer point on just how vital protected forests are to our climate bottom line, too. Using spatial data from a NASA mission to build a first-of-its-kind global forests map in 3D, the Global Ecosystem Dynamic Investigation (GEDI) found that protected aboveground forests currently store more than 61 gigatons of carbon, equal to the annual emissions of 13 billion cars.

While protected areas represent approximately 11% of the measured forested area, they store 26% of the total estimated aboveground carbon. Brazil's Amazon has the highest total carbon stock in protected areas, accounting for as much as 30% of the global total found in protected areas.

Resourcing protection

The results here leave no ambiguity. Protected forests don't just safeguard biodiversity; they are imperative for meeting our climate goals. Still, relative to other climate solutions, protected areas are underfunded, receiving just $24 billion annually, roughly 35% of the minimum funding needed to manage existing protected areas adequately.

There is a common misconception that the work is done once an area is designated as protected. But protected status is a mere snapshot in time. Economic volatility, political turnover, lapses in enforcement and the discovery of new resources can all trigger rollbacks in protected status. In the absence of legal protections, or when those legal protections weaken, forests are more likely to be degraded and destroyed. These threats heighten when funding dries up.

Fortunately, the best mechanism to bridge the resource gap already exists. Global South countries receive crucial funding through the voluntary carbon market (VCM) to protect forests – a decentralized market to buy and sell carbon credits representing certified removals or reductions of greenhouse gases.

Credits issued through the VCM must provide an empirical reduction or avoidance of emissions as a result of the project, a concept known as "additionality." Protecting forests that are standing, critics say, produces no "additional" outcome.

> "Protected forests don't just safeguard biodiversity. They are imperative for meeting our climate goals." *Patrick Roehrdanz, Director – Climate Change and Biodiversity, Conservation International | Sébastien Costedoat, Senior Manager – Social Science and Impact Evaluation, Conservation International*

Investing in the future

The new research debunks that misconception once and for all. GEDI data shows that protected forests store 28% more carbon than ecologically similar but unprotected forests.

Critically, we've additionally saved roughly the equivalent of an entire year of global fossil fuel emissions (about 10 gigatons of additional carbon) through long-term and actively protected forests compared to ecologically similar but unprotected areas. And protecting these forests requires work, including funding for rangers and local communities to do that work and they need money to develop sustainable livelihoods. Funding protected forests still facing anthropogenic pressures, therefore, leads to clear and additional carbon sequestration.

Our best course of action is continued support of VCM investment through markets with robust verification standards. Doing so will strengthen biodiversity at a time of mass extinction, negate disastrous climate outcomes and fund Global South communities that do the heavy lifting in combating climate change.

Funders should think of their approach as an investment portfolio. Imagine you were handed $100. You're told to invest that money such that it yields $500 – the clock is ticking and the stakes are high. Would you sidle up to the roulette table and let it rip? Or would you set aside a chunk of that money for an index fund, bank the standard 10% annual return, and proceed from there?

That is the choice we face today. We don't have to choose between funding experimental technologies that could help tomorrow and protecting forests we know help today; we can and must do both.

weforum.org

Drought and conflict are hurting Kenyan forests. Can the army fix things?

Five seasons of drought and clashes caused by competition for scarce resources with nomadic herders have destroyed Kenya's forests on a large scale.

James Kagambi, an internationally acclaimed mountaineer who lives in Nyeri, Kenya, participates in a military tree-planting project (Credit: Kang-Chun Cheng/Al Jazeera)

Nyeri, Kenya – This March, rains returned to the Horn of Africa after 1,000 days of one of its most punishing droughts in four decades.

In Nyeri, just west of the Mount Kenya region, once expansive forests are drinking up the rains as fog hugs the high-altitude landscape like a familiar blanket. But much of the forests have been stripped of their former glory.

Decades of poor management by the Kenya Forest Service, the state agency tasked with managing forests and increasing forest cover, allowed large-scale logging and rampant firewood collection.

The impact has been severe. From 2002 to 2022, Global Forest Watch estimated that Kenya lost more than 50,000 hectares (193 sq miles) of primary forest or 14 percent of its tree cover.

At the peak of the drought, thousands of pastoralists from tribes such as the Samburu, Sakuye, Rendille, and Marakwet flocked from the more arid counties of Samburu and Laikipia to Nyeri. They made a beeline to what greenery was left in Mount Kenya National Park and Reserve, hundreds of kilometres away.

By doing so, these nomadic herders encroached on the Meru and Kikuyu communities' land in high-altitude central Kenya to give their animals a chance to survive.

The park, a UNESCO world heritage site, is home to Africa's second-highest peak and is 60km (40 miles) southeast of Nanyuki, one of Laikipia's biggest market towns. Born of an extinct volcano, the fragile afro-alpine terrain grows lichen, tussocky grasses, and moss, which is hardly prime grazing land.

Tensions over land use

With the herders came violence too as they tussled for declining resources.

Before the drought, 50-year-old John Guthungu Mwangi had 35 head of cattle in Gaithuru, a western region of the Mount Kenya National Reserve, but they dwindled to a dozen. It was difficult sharing what little grass his community had with outsiders, he said.

"They wouldn't always respect our land," he told Al Jazeera. "Some even stole our animals as they were leaving."

Five back-to-back seasons of no rain have exacerbated stress over forest resources, said Emma Odera, a research scientist at the Nanyuki-based Centre for Training and Integrated Research for ASAL (arid and semi-arid landscapes) Development.

"Migratory corridors that connect the forest ecosystem with other landscapes face higher tensions over land use," she told Al Jazeera. "There are already tensions over land use and encroachment, … but these conditions are making it that much worse."

Over the past five years, there have been rising incidences of conflicts within local communities throughout Kenya, notably in Laikipia, just north of Nyeri, and neighbouring pastoral

Villagers from Gaithuru bring seedlings supplied by the military to plant in denuded parts of their forest (Credit: Kang-Chun Cheng/Al Jazeera)

counties, including Isiolo, Samburu, Baringo and Meru, all volatile areas in their own right.

According to the Armed Conflict Location and Event Data Project, pastoral violence constituted nearly a third of all political violence in the first quarter of 2023, resulting in at least 73 recorded casualties.

Although most roving herders have left Mount Kenya's forests since the rains have returned, the damage wrought – erosion, trampling, tree cutting for construction of temporary corrals and shelters – remains.

Kenyan researchers have long identified insufficient water and pasture for animals as well as unchecked small-arms trafficking across porous borders to Uganda, Ethiopia, and South Sudan as some of the factors intensifying communal clashes. National and county governments have also been accused of failing to address these root causes.

"It comes down to a highly political situation," said Susie Weeks, executive director of the Mount Kenya Trust, an organisation that partners with the government and communities for sustainable resource management.

Weeks says politicians or other powerful individuals funnel funds into cattle as a means of laundering money and hire young men for a pittance to watch over their animals. This relatively recent commercialisation of pastoralism breaks age-old bonds born of traditional values, in which livestock signals social status and serves as a means to marry. For mercenary herders, the incentive to respect community boundaries is slim to none.

"You have people who come in and say, 'Don't mess with my cattle or else,'" Weeks said.

There is licensing that certain forest stations around the Mount Kenya region have to manage grazing numbers – herders pay a small monthly fee (116 shillings, or $0.82, per month per head of cattle and 80 shillings, or $0.57 per month for each sheep). But enforcement remains lax due to a lack of manpower and possibly nefarious forces backing mercenary herders.

In the past, it was easier to ignore desperate small-scale herders turning up with a handful of cattle. But according to Weeks, during the drought years, they've been encroaching by the thousands and setting up pens in what the national government has demarcated as protected areas.

"Until the whole mountain is fenced, people will get in," Weeks said.

Section head

Given the complexities surrounding resource scarcity and how militarised interventions have previously worsened the conflict, Kenya's military is trying a more holistic approach.

A community member living near the Nanyuki barracks at one of the military's nurseries shows the volunteer schedule chart that he shares with other volunteers (Credit: Kang-Chun Cheng/Al Jazeera)

Soldiers are given seedlings from local nurseries as part of a series of military tree-planting initiatives (Credit: Kang-Chun Cheng/Al Jazeera)

Kenya's military is embarking on a tree-planting spree to counter Mount Kenya's present state of degradation and partnering with grassroots nonprofits to renew forest cover.

"We want to transform our humble environment into something that everyone can respect," Joel Maiyo, deputy commander of the 4th Brigade based in Nanyuki, said at a tree-planting exercise.

In late May, Maiyo's brigade of nearly 100 soldiers gathered on a cool morning in a section of the forest named Gathiuru and planted thousands of seedlings, including strangler figs, African pencil trees and muthiga trees. The military has planted an estimated 46,000 seedlings across Laikipia so far in 2023.

In 2008, former President Moi Kibaki launched Kenya Vision 2030, a developmental blueprint to industrialise the nation into a middle-income country. Part of the directive is planting 15 billion trees to make the ecosystem better and create jobs for young people, Maiyo said.

"We're seeing rains now. This can't happen without trees," he told Al Jazeera. "We even see many animals come because of the forest cover. We want to see the same activities taking place back at the barracks."

At its Nanyuki barracks, the military has five nurseries on 600 hectares (1,500 acres) of unfenced land. The environmental programme at the barracks has also established communal agricultural plots that locals can use to farm in exchange for helping with the military's nurseries.

More than 100 people farm on the land, according to Moira Chepakiror, an environmental coordinator for the military. She estimated that the survival rate for tree seedlings is about 33 percent and said the military is working to improve that number.

"People will tell you [Nanyuki] was very good for crops and animals," she told Al Jazeera. "The river used to be much higher."

Environmental officers in the military also said they have enlisted local scouts to help record illicit logging and monitor conflict within their communities. Rather than just relying on rain, the military is also digging boreholes and providing water tanks to communities, especially at the conflict-prone borders, they said.

"When you go back to [understand] these conflicts, the roots are in environmental change and resource scarcity," Chepakiror said. "Communities here don't have reliable sources of livelihood any more. We're trying to help establish that."

Mwangi is grateful to the military for stepping in to offer a hand but isn't putting much hope in the project. "Us from Gaithuru, we're glad they're planting trees to counter the degradation," he said but shrugged. "No one will be surprised when things get heated again."

aljazeera.com

Forests critical to clean, safe water supply

Chief Executive Officer of the Forestry Department and Conservator of Forests, Ainsley Morris, addresses the Ministry of Economic Growth and Job Creation's virtual townhall on the Draft Watershed Policy, on Tuesday, July 18. (Credit: DONALD DE LA HAYE)

The Forestry Department is playing a key role in safeguarding the country's forests, which are vital in sustaining watersheds and ensuring access to clean, fresh, water resources for both human and ecological needs.

Forests contribute to water regulation, soil conservation, water-quality maintenance, biodiversity conservation, climate resilience, and carbon sequestration, among other things.

Chief Executive Officer of the Forestry Department and Conservator of Forests, Ainsley Morris, said the entity manages 117,000 hectares of forests across the island.

The Department's work is guided by instruments such as the National Forest Management and Conservation Plan, the National Mangrove and Swamp Forest Management Plan and the Clustered Forest Management Plan.

Mr. Morris was speaking at the Ministry of Economic Growth and Job Creation's virtual townhall on the Draft Watershed Policy on Tuesday, July 18.

The Conservator of Forests informed that the Department has identified six forest cover categories in Jamaica – closed broadleaf forests, disturbed broadleaf forests, mangrove forests and open dry forests.

He said that the parishes with the most forest cover are Portland, St. Catherine, St. Ann and Trelawny, "which also coincides with the location of our largest forest reserves such as the Blue Mountain and the recently declared Cockpit Country Protected Area".

These areas, he noted, are the most prolific in terms of production of water, the monitoring of which is being done by the Water Resources Authority (WRA).

For his part, Deputy Managing Director of the WRA, Geoffrey Marshall, pointed out that "of the 26 watershed management units that are in Jamaica, in terms of what the WRA monitors, the greatest flows are from the Rio Bueno, White River or Dry Harbour Mountains basins".

Importantly, he noted that "each of these basins have multiple watersheds within them", improving our water quality, reducing the risk of flooding, reducing risk for invasive species to establish and increasing resilience within a changing climate.

jis.gov.jm

Electric timber trucks trialled in Scotland

Scottish Forestry has awarded £452,000 towards a three year trial which will test the use of state-of-the-art electric wagons to transport timber.

As part of the project, which is the first of its kind in the UK, two Scottish timber companies, James Jones & Sons Ltd and Scotlog Haulage, are partnering with the Volvo Group and Cleaner EV to undertake the demonstrator project.

Around 7 million tonnes of wood are harvested from Scotland's forests each year and transported to sawmills, board manufacturers and other processors, mostly on 44 tonne diesel lorries.

The forestry sector, whilst inherently green, is keen to use modern technology to tackle timber transport issues as part of its overall efforts to decarbonise and reach Net Zero.

Announcing the funding package, Rural Affairs Secretary Mairi Gougeon said: "Forestry is vital to helping Scotland achieve its net zero target by 2045. Around 7.6 million tonnes of harmful CO2 is taken out of the atmosphere from Scotland's trees each year and the timber used in houses and other wooden products lock away carbon for its lifetime.

"The forestry sector is innovative and always using new technology to increase its business efficiencies. I welcome this new trial and look forward to hearing more about the findings as we drive closer to Net Zero."

A key element of the three year trial is that all the partners involved are committed to sharing their experiences of running the electric lorries with others in the timber and rural haulage sectors.

Creel Maritime consultants will monitor the use of the lorries and arrange knowledge exchange opportunities over the course of the following three years.

Neil Stoddart, Director of Creel Maritime, who are managing the project, added: "In terms of road haulage, the timber industry is pretty advanced in looking for solutions to decarbonise. For example, we are reducing diesel lorry miles on many projects and opting for transport by sea. Additionally we are reviewing using an alternative fuelled barge to transport logs across a remote Loch in the Highlands.

"This is a very exciting project but there are big challenges in running articulated lorries on electric power, mainly on cost grounds and infrastructure. This three year trial will look into all these aspects and I'm keen to share as much detail on this with the industry."

James Jones & Sons Ltd, one of the largest sawmill groups in the UK, will trial a 40 tonne articulated lorry from their sawmill in Lockerbie to transport timber to their Hangingshaws national distribution centre.

Scotlog Haulage will trial a 44 tonne truck in the Highlands, moving roundwood timber from Inverness Harbour to West Fraser and other local mills. During the three year trial, the vehicles will be evaluated for their achievable mileage vs battery consumption, durability, viability and total cost of ownership.

The two new Volvo electric timber vehicles are currently being manufactured in Gothenburg and are expected to be ready for use later this summer.

thescottishfarmer.co.uk

Climate change: Deforestation surges despite pledges

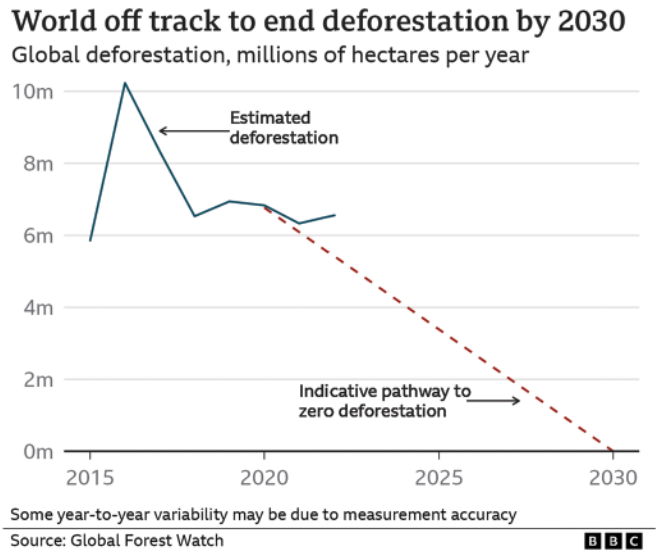
An area of tropical forest the size of Switzerland was lost last year as tree losses surged, according to new research. It means that a political pledge to end deforestation made at COP26 by world leaders is well off track.

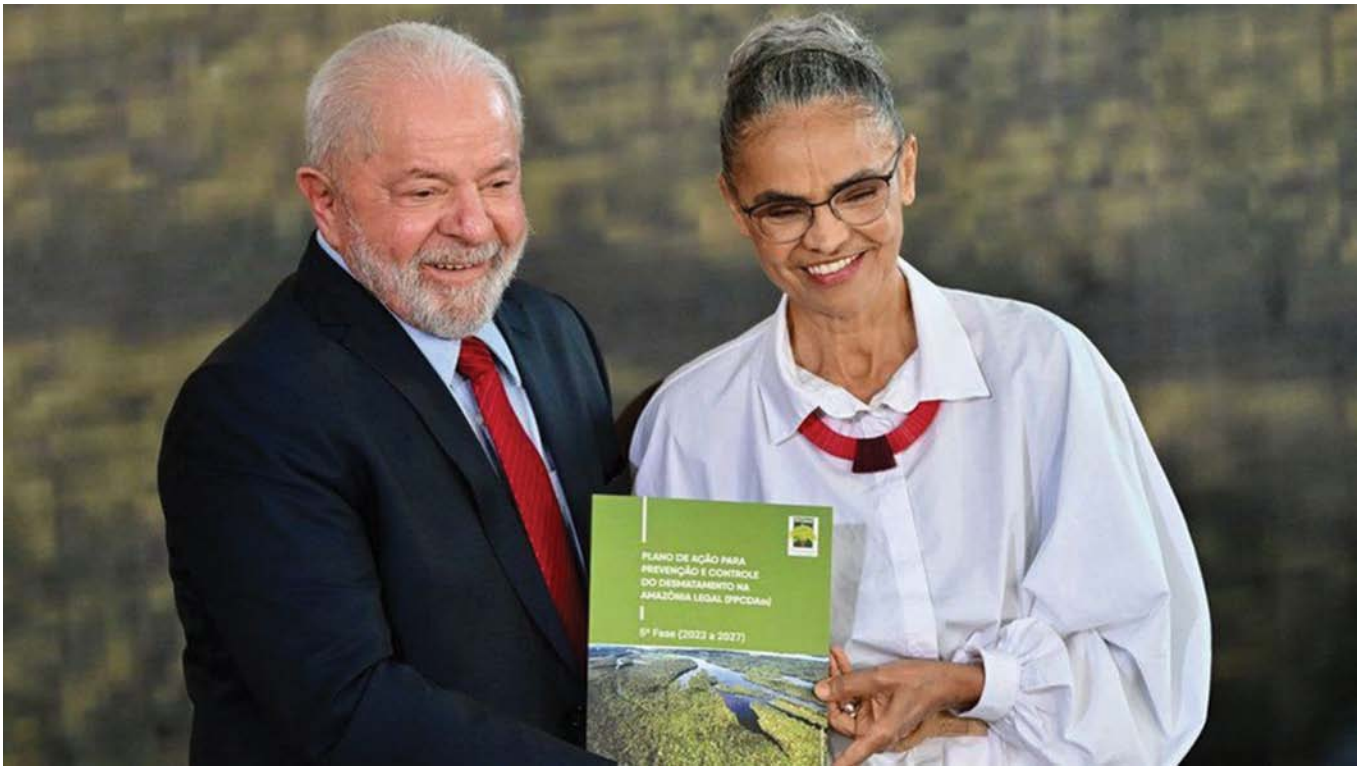
Some 11 football pitches of forest were lost every minute in 2022, with Brazil dominating the destruction. But a sharp reduction in forest loss in Indonesia shows that reversing this trend is achievable.

One of the key moments at the COP26 climate meeting in 2021 saw over 100 world leaders sign the Glasgow Declaration on forests, where they committed to work collectively to "halt and reverse forest loss and land degradation by 2030".

In total, leaders from countries covering around 85% of global forests signed up. This included former Brazilian president Jair Bolsonaro, who had relaxed the enforcement of environmental laws to allow development in the Amazon rainforest.

The Glasgow pact was agreed after a previous agreement signed in 2014 failed to stem the relentless loss of trees.





President Lula and his environment minister have promised to end deforestation in Brazil (Credit: EVARISTO SA)

Indonesia has stepped up fire monitoring and restricted new palm plantations
It's a similar story in Malaysia. In both countries, oil palm corporations also appear to be taking action, with some 83% of palm oil refining capacity now operating under no deforestation, no peatland and no exploitation commitments.
(Credit: SULTAN IQBAL ABIYYU)

Now a new analysis carried out by Global Forest Watch shows that the new promise made in Glasgow is not being kept. Losses of tropical primary (old-growth) forest are seen as particularly critical for global warming and biodiversity.

Rainforests in Brazil, Democratic Republic of Congo and Indonesia absorb huge amounts of greenhouse gases.

Clearing or burning these older forests sees that stored carbon released to the atmosphere, driving up temperatures around the world. These forests are also critical for maintaining biodiversity and the livelihoods of millions of people.

Scientists warn that these functions – or "ecosystem services" – can't easily be replaced by planting trees elsewhere, because these forests have developed over such a long period of time.

According to the new data, gathered by the University of Maryland, the tropics lost 10% more primary rainforest in 2022 than in 2021, with just over 4m hectares (nearly 16,000 sq miles) felled or burned in total. This released an amount of carbon dioxide equivalent to the annual fossil fuel emissions of India. "The question is, are we on track to halt deforestation by 2030? And the short answer is a simple no," said Rod Taylor from the World Resources Institute (WRI) which runs the Global Forest Watch.

"Globally, we are far off track and trending in the wrong direction. Our analysis shows that global deforestation in 2022 was over 1 million hectares above the level needed to be on track to zero deforestation by 2030." Brazil dominates the losses of primary tropical forest and in 2022 this increased by over 14%. In Amazonas state, which is home to over half of Brazil's intact forests, the rate of deforestation has almost doubled over the past three years.

Bucking the trend

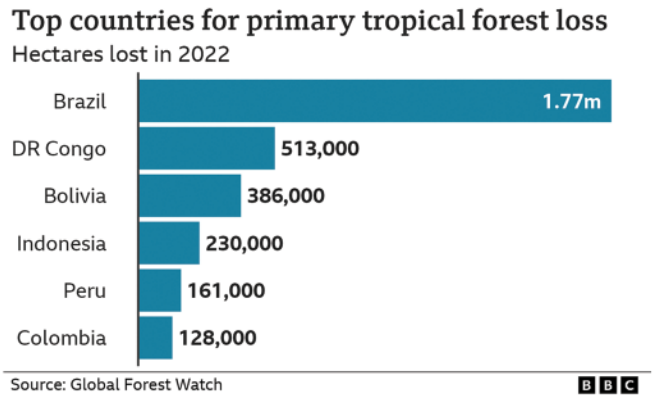
While the overall picture is not good, there are some positive developments that show that it is possible to rein in deforestation. Indonesia has reduced its primary tropical forest loss more than any other country in recent years since recording an all-time high in 2016.

Analysis suggests this is down to both government and corporate actions.

A moratorium on logging in new palm oil plantations was made permanent in 2019, while efforts to monitor and limit fires have been stepped up.

Bolivia, one of the few countries not to sign the Glasgow Declaration, also saw a rapid acceleration of forest losses in 2022, up almost a third in a year. Commodity agriculture is the main driver, according to researchers. Soybean expansion has resulted in nearly a million hectares of deforestation in Bolivia since the turn of the century.

Although Ghana in West Africa has only a small amount of primary forest remaining, it saw a massive 71% increase in losses in 2022, mostly in protected areas. Some of these losses are close to existing cocoa farms.



With a new president in Brazil committing to end deforestation in the Amazon by 2030, there is renewed hope that the promises made in Glasgow in 2021 might fare better in the coming years. But if the world wants to keep global temperatures under the critical 1.5C threshold, the time for action on forests is very short indeed, say the researchers. "There's an urgency to get a peak and decline in deforestation, even more urgent than the peak and decline in carbon emissions," said Rod Taylor from WRI. "Because once you lose forests, they're just so much harder to recover. They're kind of irrecoverable assets."

How is deforestation measured?

The loss of tree cover can be monitored relatively easily by analysing satellite images – although there's sometimes uncertainty about the precise year in which trees have been lost. Measuring deforestation – which typically refers to human-caused, permanent removal of natural forest cover - is more complicated, because not all tree-cover loss counts as deforestation.

For example, losses from fire, disease or storms, as well as losses within sustainable production forests, would not usually count as deforestation. There are difficulties with this – for instance, some fires may have been started deliberately to clear a forest, rather than being natural. Scientists try to take all of these factors into account to come up with an estimate for deforestation.

The latest figures suggests a rise in (human-caused) global deforestation of about 3.6% in 2022 compared with 2021 – the opposite direction to what was pledged in Glasgow. Interestingly, whilst losses of the particularly important primary tropical forests rose by nearly 10% in 2022, overall global tree cover loss from all causes actually fell by nearly 10%. But researchers say this was because losses from forest fires were down in 2022, particularly in Russia. This is not thought to be part of a long-term trend. In fact, tree cover losses from fires have generally increased in the last two decades, and fires are expected to become more common in future due to climate change and alterations to the way land is used.

Matt McGrath & Mark Poynting
BBC News Climate & Science
bbc.co.uk

Research shows impact of climate change on Africa's forests

The African PhD students in forest and climate who presented their findings at a knowledge sharing workshop in Nairobi, Kenya

The research results of a group of young PhD and masters students have shown the challenges, and also some solutions, related to climate change and forests in Africa – highlighting that, if adopted by decision-makers, research can make a societal impact.

Some 15 PhD and three masters students in forest conservation management, representing 10 African countries, who benefited from African Forest Forum, or AFF, funding, presented their findings at a regional workshop in Nairobi, Kenya from 3–7 July to about 70 forest stakeholders from 18 countries on the continent.

The AFF has been working with African governments and other international partners to support research, innovation and knowledge innovation in the forestry sector, aiming at an improvement in livelihoods and in strengthening the fight against climate change on the continent.

According to AFF, the young researchers conducted studies to deepen the understanding of the complex relationships between a changing climate and forests as well as tree resources to enable those in the forestry sector to develop appropriate mitigation and adaptation responses to address the impacts of climate change.

Environmental experts present agreed that the research findings yielded results that will help to benefit efforts to tackle climate change and can improve the livelihoods of the population on the continent.

"The findings show a lot of challenges but, at the same time, opportunities and resources that will go a long way towards driving the fight against climate change," said Ben Chikamai, the executive secretary of the Network for Natural Gums and Resins in Africa, or NGARA, and one of the chairs of a discussion and exchange session at the workshop.

He added that the research findings will reinforce synergy in the global fight against climate change and the push to achieve the United Nations' Sustainable Development Goals (SDGs), in particular SDG13, namely taking climate action, and including a call for the improvement of human and institutional capacity to deal with climate change.

What were the studies about?

It is against this backdrop that the knowledge-sharing workshop focused on the theme, 'Forest and Tree-based ecosystems services for socio-ecological resilence to climate change in Africa', according to the AFF.

The students carried out their studies in different ecosystems (Sahel parklands, moist forest, mangroves and woodlands) on varied forest issues such as forest cover dynamics, forest ecosystems, goods and services, the dynamics of fruit trees, and the reduction of the vulnerability of populations to climate change.

Other topics explored the contribution of coffee and cocoa agroforests in adapting to climate change, as well as climate justice.

Basiru Adeniyi Okanlawon, a PhD student from Nigeria, worked on the topic 'Climate change and climate justice: a gender analysis of REDD+ in the South of Cross River, Nigeria'. REDD+ stands for Reducing Emissions from Deforestation and Forest Degradation in Developing Countries.

He notes in his findings that international NGOs and organisations were more concerned in driving gender mainstreaming than local NGOs and the government, as evidenced by the number of available funded projects on the ground.

"In Nigeria, cultural norms impede women from getting involved with men in development actions. They must seek and get the consent of men [such as their husbands], who are reluctant to accept," Okanlawon said.

This explains why, according to his findings, only 7% of women in the South of Cross River in Nigeria are engaged in REDD+ activities.

Alice Jebiwott, another PhD research student from Kenya, worked on a study titled, 'An assessment of Mau forest cover, climate change and impacts of evictions on livelihoods in the Rift Valley, Kenya'.

She notes in her findings that the eviction of Rift Valley forest populations from their natural habitat has brought misery to their lives, depriving them of their sources of income, indigenous knowledge and their land rights.

"Their lives before and after the eviction have completely changed for the worse. Those who earned their living as herbalists, non-timber forest products, and so on, can no longer do so. Women who took care of their households through trade in such products have been deprived of these opportunities," Jebiwott said.

Danielle Chimi, a PhD student from Cameroon, researched 'The dynamics of fruit tree growing, ecosystem services and reducing the vulnerability of the populations to climate change in the West Highlands region of Cameroon'. She notes that agroforestry systems are one of the best alternatives for forest populations in the African continent.

"Fruit tree planting is an important ecosystem service that can [protect] the forest population from poverty and [help them in] the fight against climate change," she said.

She notes that, with the fall in world market prices of cash crops such as coffee, on which forest populations relied, as well as climate threats to food crops traditionally favoured, the forest population moved to agroforestry, growing mostly fruits.

"These resilience measures have really improved the livelihood of the farming population of the west region in Cameroon," Chimi revealed in her research.

A growing innovation among forest communities as revealed by the different research studies is the increasing use of ecosystem services and efforts to add value by the different stakeholders in the production chain.

"Ecosystem services obtained naturally from the forest such as stable clean water supplies, productive soil, and carbon sequestration, are increasingly exploited by government, the private sector and the forest population.

"If managed sustainably, this will potentially help in the fight against climate change," said Yaya Doumbia from Côte d'Ivoire who researched the topic, 'Climate change vulnerability of forest cover in Southwest Ivory Coast'.

Importance of knowledge-generation

Highlighting the importance of research, Dr Joshua K Cheboiwo, the chief research officer and director at the Kenya Forestry Research Institute, or KEFRI, said there was an urgent need for Africa to advance economic activities in forestry that will enhance sustainable economic development, lead to poverty alleviation, employment creation, environmental goods and services and fight climate change.

"Africa needs huge investment in forest production, processing and trade. Manufactured products like paper, [those used in] construction, furniture, packaging, printing, textile will generate surplus forex," he said.

AFF Executive Secretary Professor Godwin Kowero pointed out that the population of Africa is expected to rise to 2.5 billion by 2050.

The projected demand for industrial wood is estimated to grow from about 75 million cubic metres per year in 2020 to 250 million cubic metres per year by 2030.

Consequently, the strain on African forests and trees outside forests has to be carefully managed, especially in the context of increasing deforestation and forest degradation on the continent that are increasingly being made worse by the adverse effects of climate change.

"These resources consist of a myriad of different tree species, good for timber and other building materials, as well as an abundance of non-timber forest products, offering ecosystem resources to improve the lives of the population," Kowero said.

"We can see from the presentations the in-depth research carried out in the different countries and we encourage stakeholders to take the findings very seriously," he added.

According to Professor Marie-Louise Avana, the director of programmes at AFF and a university lecturer, reseachers also have to work as teams to better exchange and improve the quality of their work.

"Collaboration and the exchange of experiences only helps to improve knowledge and performance. That is one of the objectives of this AFF-organised workshop," she said.

universityworldnews.com

Publications

CITES as a Tool for Sustainable Development

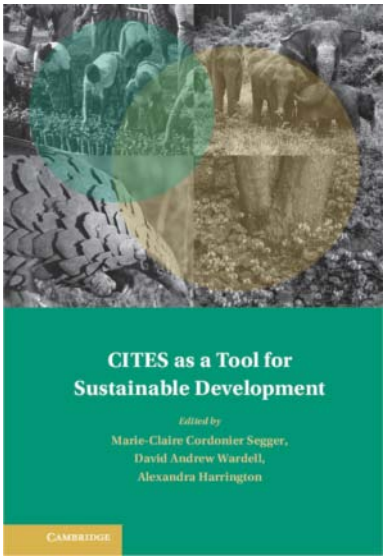
Marie-Claire Cordonier Segger
University of Cambridge

David Andrew Wardell
Center for International Forestry Research (CIFOR)

Alexandra Harrington
Albany Law School

Saving endangered species presents a critical and increasingly pressing challenge for conservation and sustainability movements, and is also matter of survival and livelihoods for the world's poorest and vulnerable communities. In 1973, a global Convention on International Trade in Endangered Species (CITES) was adopted to stem the extinction of many species. In 2015, as part of the Sustainable Development

Goals (SDG 15) the United Nations called for urgent action to protect endangered species and their natural habitats. This volume focuses on the legal implementation of CITES to achieve the global SDGs. Activating interdisciplinary analysis and case studies across jurisdictions, the contributors analyse the potential for CITES to promote more sustainable development, proposing international and national regulatory innovations for implementing CITES. They consider recent innovations and key intervention points along flora and fauna value chains, advancing coherent recommendations to strengthen CITES implementation, including in endangered species globally and locally.



Part I. Endangered Species, Sustainable Development and the Law 1. Introduction 2. Origins, Evolution and Contribution of CITES to Achieving Sustainable Development 3. Protected Species, Global Commodities and Law for Sustainable Development Part II. Sustainable Development in Law and Policy on Endangered Species 4 . Shifting the Burden of Wildlife Protection: The Role of Extra-Territorial Jurisdiction in Implementing CITES 5. Analysing CITES Trade Measures 6. CAFTA-DR Environmental Submission Process as a Public Participation Alternative and a Way to Protect CITES-listed Species Part III. Global Implementation of CITES by Key Species / Commodity 7. Power, Profits and Policy: A Reality Check on CITES and the Prunus Africana Bark Trade 8. The Inclusion of the Scalloped Hammerhead Shark (Sphyrna lewini) in Appendix II of CITES 9. Understanding Markets to Conserve CITES-listed Species 10. Criminal Prosecution and Enforcement Challenges in CITES Part IV. Case Studies of National Implementation of CITES 11. Sustainable Enterprise Development: Protection of Endangered Species in Omo and Other Potential Biosphere Reserves 12. Biodiversity MEAs Matrix in India: Synergies, Implementation Status and Future Challenges 13. Tanzania's Fight against Illegal Ivory Trade: Law-Enforcement Failures and Non-Compliance with International Environmental Laws 14. The Impact of CITES COP 12 2002 Decision on Mahogany on Peru's Timber Trade 15. Strengthening CITES Compliance: Improving the Management of Resources Preservation and Cross-Border Wildlife Trade in China 16. How to Reverse the Fallacy of Command-and-Control in Combatting Illegal Trade of Exotic Pets in Brazil 17. Lessons on Sustainable Development and Challenges to Illegal Trade: The Case of Chilean Larch 18. The Return of the Markhor: Why CITES Matters 19. New Technologies for Effective Biodiversity Governance: Lessons from Orangutans in Indonesia 20. Regulation of Import of Hunting Trophies of Exotic Species Into India By Framing a Look-Alike Policy to Conserve Indigenous Wild Fauna 21. Legislation for the Control of the Timber Trade in the Democratic Republic of Congo and the Congo Basin 22. Sustaining the Global Frankincense Trade through CITES: Governance Challenges and Complexities Part V. Emerging Issues and Synergies for CITES in the Context of Sustainable Development: 23. Sustaining Commercial Marine Fisheries for This Generation and Future Generations Using CITES Appendix I and II for Trade Traceability 24. CITES as a Tool for Monitoring and Adaptive Management 25. Linking Global Processes: Institutional Interplay and the Global Sustainable Development Agenda 26. Trade and Zoonotic Diseases 27. The Convention on Biological Diversity (1992) and other Biodiversity Conservation Regimes: Looking through the Lens of Synergy and an Ethical Shift Part VI. Conclusions 28. New Directions for Law and Policy on Sustainable Development in the Context of CITES and Endangered Species.

For more information, and to order, visit:

www.cambridge.org/9781108420006

and enter the code CTSD2023 at the checkout for 20% discount

Forests and climate change: an Oscar-winning alliance – Michelle Yeoh on the UN Forest Podcast

The world is falling behind on lowering global carbon emissions. We only have a narrow chance of limiting global warming to 1.5°C above pre-industrial levels (IPCC, Sixth Assessment Report) or as the United Nations Secretary-General says, "our world needs climate action on all fronts – everything, everywhere, all at once."

The latter is the best introduction to UNECE's brand-new second UN Forest Podcast episode and its host **Michelle Yeoh,** 2023 Oscar-winning actress and Goodwill Ambassador for the United Nations Development Programme (UNDP). Together with Professor **Almut Arneth**, Coordinating Lead Author of the IPCC Special Report on land and climate change, Ms. Yeoh unpacks the unique relationship between climate change and forests in this podcast episode.

Forests harbour 80% of terrestrial biodiversity and provide essential ecosystem services as a watershed, sources of food, materials, and genetic discovery. Forests are also the biggest terrestrial carbon sink, therefore they must be part of any climate action plan. But as former forest areas are being lost to different land uses or fall victim to rising temperature incidents such as wildfires, insect outbreaks or droughts, what are the strategies to face this complex reality?

The role of forests as carbon sponges is well established. Trees absorb carbon dioxide. If not for forests, much of the carbon would remain in the atmosphere, further driving global warming. But what Ms. Yeoh and Ms. Arneth explore together in the new episode is the more complex reality of trees and forests' role in climate change. Forests, they both stress, are not only saviors, but also victims, beneficiaries, and potential culprits of a changing climate. So, is increasing the forest area a feasible solution to offset carbon emissions? Are climate-change-induced extreme weather events and disturbances not already

2023 Oscar-winning actress and Goodwill Ambassador for the United Nations Development Programme (UNDP), Michelle Yeoh.

too prevalent, increasing the risk of forests releasing more carbon than they absorb, turning from carbon sink to carbon source?

With this new episode, we invite you into the world of forest in times of climate change brought to us in an inspiring conversation between two leading personalities of our times. While a lot has to change at all levels in all areas all at once, there is no denying that forests are a critical part of the solution. If the

global community is to succeed in accelerating progress on our climate ambition, and link nature and Sustainable Development Goals, then there is an urgent need to invest more in reversing deforestation and forest degradation in ways that benefit people and the planet.

Note

You can listen to the episode "Climate change and forests hosted by Michelle Yeoh" on Spotify, SoundCloud, Apple Podcasts, and Amazon Music. The UN Forest Podcast is a series produced by the Joint UNECE/FAO Forestry and Timber Section to showcase that the potential of forests goes beyond trees. Each episode features special guests and speakers who bring insights on forests as our strongest allies in fighting climate change and creating a sustainable future now and for generations to come.

undp.org

Expert Panel on Forests and Human Health 2023

REPORT

FORESTS AND TREES FOR HUMAN HEALTH: PATHWAYS, IMPACTS, CHALLENGES AND RESPONSE OPTIONS

The United Nations estimates that less than half of the global population is covered by essential health services. Adding to the low rate of coverage, the ongoing COVID-19 pandemic has caused further healthcare disruptions that could reverse decades of improvements. Moreover, in recent years, there has been a surge in zoonotic diseases such as COVID-19, SARS, MERS, Ebola, Malaria, and the avian flu, and illness and deaths from such diseases are expected to spike in the future. Several studies have concluded that nature, particularly forests, contribute to physical and mental well-being and can notably improve human health.

The implementation of the 2030 Agenda for Sustainable Development and its 17 Sustainable Development Goals (SDGs) can strengthen the momentum for combatting these pressing challenges. The third Sustainable Development Goal (SDG 3) aims to ensure healthy lives and promote well-being for all at all ages. This global assessment report aims to contribute to the implementation of the 2030 Agenda for Sustainable Development by highlighting the nexus between SDG 3: Good Health and Well-Being and SDG 15: Life on Land, as well as relevant links to other SDGs.

A total of 44 scientists and experts contributed to this assessment, with a core Expert Panel of 16 scientists with diverse expertise, including forestry, ecology, landscape design, psychology, medicine, epidemiology and public health. The report was launched on the International Day of Forests 2023. You can watch the video of the event on our IUFRO YouTube channel.

Full Report

Forests and Trees for Human Health: Pathways, Impacts, Challenges and Response Options. A Global Assessment Report.

Editors: Cecil Konijnendijk, Dikshya Devkota, Stephanie Mansourian and Christoph Wildburger

For hard copies of the global assessment report, please write to schimpf(at)iufro.org.
For download:

Full report (high resolution) - high resolution (PDF, 55.2 MB)
Full report (low resolution) - low resolution (PDF, 6.6 MB)

POLICY BRIEF

FORESTS AND TREES FOR HUMAN HEALTH: PATHWAYS, IMPACTS, CHALLENGES AND RESPONSE OPTIONS

This policy brief summarizes the key messages of the GFEP report "Forests and Trees for Human Health: Pathways, Impacts, Challenges and Response Options" and reaches out to international as well as national policymakers and other stakeholders. The following key messages are highlighted:

- Forests, trees and green spaces impact human health across all life stages
- Positive health outcomes of forests, trees and green spaces significantly outweigh negative ones
- The health outcomes of forests are the result of several pathways that are dependent on context and individual lifestyles
- Forest-health relations need to be considered when dealing with global crises
- Integrative and cross-sectoral approaches need to be adopted to improve the forest-health link

Policy Brief

Forests and Trees for Human Health: Pathways, Impacts, Challenges and Response Options

For download:
Policy Brief English (high resolution) (PDF, 19.69 MB)
Policy Brief English (low resolution) (PDF, 1.11 MB)
Policy Brief Spanish (high resolution) (PDF, 24.1 MB)
Policy Brief Spanish (low resolution) (PDF, 1.1 MB)

Around the World

Bangladesh: Experts for protecting forests to solve water crisis in CHT

Experts at a workshop stressed protecting forests to solve water crisis in the Chittagong Hill Tracts (CHT).

Speaking as the chief guest at the workshop, Chittagong Hill Tracts Affairs Secretary Md Mashiur Rahman said the CHT has favourable climate and environmental factors for restoring natural ecosystems, including forests and water bodies.

"However, factors such as climate change and the growing demands of the developing economy are increasing biotic pressure on the CHT forest ecosystems," he added.

The "Lessons Learned and Way Forward" workshop on 'Chittagong Hill Tracts Watershed Co-Management Activity (CHTWCA) of Strengthening Inclusive Development in Chittagong Hill Tracts (SID-CHT) project' was held at Hasina CHT Complex in Dhaka.

The project's primary focus has been on uniting stakeholders to manage watersheds comprehensively. Participants of the workshop engaged in dynamic discussions, sharing success stories and insights derived from implementing integrated watershed management practices. These practices have not only bolstered community and ecosystem resilience to climate change but have also promoted sustainable resource management within the region.

In her remarks, Sonali Dayaratne, Deputy Resident Representative, UNDP Bangladesh, said, "Central to our mission is the elevation of conservation awareness. Through educational initiatives, outreach programs, and capacity-building endeavours, we have instilled a deep-seated understanding of the vulnerability of our ecosystems and their indispensable role within the broader fabric of life."

Muhammad Khan, Economic Growth Office Director, USAID Bangladesh, attended the workshop as a special guest.

He said, "Ecosystem conservation and management is critical to ensure CHT's long-term resilience. USAID continues to consider CHT as one of its priority regions."

During the workshop, the speakers highlighted community involvement in formulating and implementing conservation projects. The integration of local knowledge into project planning is a critical factor for achieving lasting outcomes.

Government representatives and CHT institutions also examined policy landscapes and institutional frameworks necessary to maintain and expand successful participatory watershed management practices. Aligning project goals with broader CHT development objectives and policies was underscored as paramount for sustained progress. A strategic roadmap for watershed management was also mapped out as a way forward.

Under this initiative, USAID and UNDP worked together to enhance climate and ecological security in CHT, collaborating closely with local communities to build resilient livelihoods and community-based forest management systems, a UNDP press release said.

Funded by USAID and implemented by UNDP Bangladesh in collaboration with its local and government partners, the Chittagong Hill Tracts Watershed Co-Management Activity (CHTWCA) of Strengthening Inclusive Development in Chittagong Hill Tracts (SID-CHT) project has established itself as a pioneering project in integrated watershed co-management.

CHTWCA was initiated in August 2013, and supported community-government co-led conservation efforts in nearly 65,000 hectares of Village Common Forests, Reserved Forest and Protected Areas. CHTWCA partnered with the Ministry of Chittagong Hill Tracts Affairs, Ministry of Environment, Forest and Climate Change, Hill District Councils, Bangladesh Forest Department, Ashika, Tahzingdong, and Trinamul.

bssnews.net

Amazon deal lacks concrete measures say climate activists

The eight countries that share the Amazon basin have fallen short of an agreed goal to end deforestation.

Delegates from the countries met in the Brazilian city of Belém for a two-day summit on the issue in August. A joint declaration created an alliance to combat deforestation, but left each country to pursue its own conservation goals.

Climate activists said the deal lacked concrete measures at a time "when the planet is melting".

"Temperature records are broken every day, it's not possible that under those circumstances, the eight presidents of the Amazon nations can't include a line in the declaration stating, in bold letters, that deforestation needs to be zero, that it won't be tolerated any more," Márcio Astrini of the Climate Observatory group said.

Around 60% of the Amazon, the largest rainforest in the world, lies in Brazil. The other countries represented at the gathering are Bolivia, Colombia, Ecuador, Guyana, Peru, Suriname and Venezuela.

Preserving the Amazon is a central part of efforts to tackle climate change and ahead of the summit, its host, Brazilian President Luiz Inácio Lula da Silva, had called for a common goal of ending deforestation by 2030.

Brazil has already adopted the policy but hopes for it to be adopted jointly by all the eight nations gathered in Belém were dashed on Tuesday. Mr Astrini said the declaration lacked "something more forceful". Haug Larsen of the Rainforest Foundation Norway also bemoaned the fact that a commitment to zero deforestation, the "guiding star for the agreement", had not been achieved. But he welcomed an agreement by the eight nations to work together to combat illegal activities in the Amazon, which he said had been allowed to "rage freely", particularly in the border areas.

He said concrete plans had been made to co-ordinate air space surveillance and exchange information to combat illegal mining and logging.

If properly implemented, the agreement would be "a giant leap in the right direction", he concluded. Brazil's President Lula said in his opening speech that action had "never been so urgent. The challenges of our era, and the opportunities arising from them, demand we act in unison".

Deforestation in Brazil has fallen dramatically since Lula won the presidency from predecessor Jair Bolsonaro, who favoured development over conservation, but thousands of square kilometres continue to be lost each year.

The joint statement, named the Belém declaration, said the new alliance would aim to "prevent the Amazon from reaching a point of no return". It also included commitments to enhance co-operation on issues like water management, health, sustainable development and common negotiating positions at global climate summits. But there have been differences in opinion in some areas.

Colombia's President, Gustavo Petro, for example, wants other countries to match his pledge to ban new oil exploration, while Brazil is considering exploring new areas at the mouth of the Amazon river.

Despite the differences, the gathering has undoubtedly given this region a voice when it comes to combatting climate change, and is being viewed as a precursor to the 2025 UN Climate Change conference, which will also be held in Belém.

The summit opened on the same day that the European Union's climate change panel confirmed that July had been the hottest month on record globally.

The billions of trees that make up the Amazon hold vast amounts of carbon, accumulated over centuries, and every year their leaves continue to absorb carbon dioxide that would otherwise remain in the atmosphere and contribute to the rise in global temperatures.

The world has already warmed by about 1.1C since the industrial era began and temperatures will keep rising unless governments around the world make steep cuts to emissions.

bbc.co.uk

PNG: Forests source of wealth for Papua's local communities

Papuas Office of Forestry and Environment (DKLH) has said that forests constitute a source of wealth for the local communities in the province.

"Papuan people who live in villages still treat forests as their source of life," the head of Papua DKLH, Jan Jap Ormusery, said in Sentani sub-district. Jayapura district, Papua province, on Saturday.

People are still obtaining food, medicines, and other various necessities from natural resources found in forests, he added.

According to him, the province is home to protected forests, nature reserve and conservation areas, permanent production forests, as well as production forests that can be conserved.

"Forests wield economic potential that can be used to elevate the living standard of the people, because forests do not merely serve their purpose as the lungs of the planet, but also as the source of life of communities," he pointed out.

Papuan forest's wealth can be used to fulfill the needs of local residents, especially those living in the forests or their surroundings, he elaborated.

"We are tasked with guiding and inviting the people to jointly optimize the wealth of our forests in a productive, sustainable, and responsible manner," Omusery said.

He informed that the provincial government is working in collaboration with mining company PT Freeport Indonesia to plant as many as 4,655,200 tree seeds on land in Jayapura District.

"We are striving to plant much more trees in order to expand the area of the conservation forest, which, in turn, is expected to help us preserve biodiversity," Omusery explained.

en.antaranews.com

India: Human development in forests leading to wildlife attacks

AP Chief Conservator of Forests says discarded food waste on roads and hills is attracting the wildlife, requests TTD officials to install flood lights along pathways

The incident involving a six-year-old girl falling victim to a leopard attack in the Tirumala region has sent shockwaves across the State. However, such attacks are not new, as several similar incidents have occurred quite frequently in the past. These occurrences raise questions about the factors leading to these attacks within the Seshachalam hills.

The Seshachalam hills, a range stretching from North West to South East over a length of approximately 80 km and a width varying between 32 to 40 km, is located within the Tirupati and Kadapa districts of the Rayalaseema. These hills, which form a part of the Eastern Ghats, are primarily situated in the Tirupati district.

"The Seshachalam hills have long been a natural habitat for the big cats, with a historical presence that rivals even the renowned temple itself. However, as human development progressed, including the construction of the Ghat roads, the balance of the leopards' environment has been disturbed to some extent," said Andhra Pradesh Chief Conservator of Forests, Shantipriya Pandey, while talking to TNIE.

Citing what factors might have contributed to leopards' preference for hunting humans instead of their natural prey, she observed, "Leopards are nocturnal creatures, often hunting under cover of darkness. The unfortunate young girl found alone and not in a group, became a vulnerable target due to the dimly lit walking track. The lack of light and isolated presence made her an easy prey for the predator."

Speaking to TNIE, wildlife expert Aditya Panda shed light on the nature of these incidents. "Most leopard attacks are accidental kills, often followed by the animal retreating after the incident. Leopards, as opportunistic predators, occasionally focus on children. It is important to note that a single attack on a person doesn't necessarily indicate a repeat behaviour."

newindianexpress.com