CFA Newsletter

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CFA Newsletter
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Restoring forests at the edge of the Commonwealth

Genetic data will be collected from these Salix laurina trees as part of a project to develop a woodland strategy for The Shetland Islands, approximately 130 miles north of mainland Scotland (Credit: The Shetland Amenity Trust).

Future Woodlands Scotland (FWS) is a charity that was initially set up in 2012 to fund innovative thinking for trees and native woodlands in Scotland.

It has since branched out to launch a scheme to help farmers and landowners plant or restore native woodlands. And the charity is now turning its attention to Scotland's towns and cities.

We speak to Shireen Chambers, FICFor, the conservation charity's first ever CEO on the ways the charity is driving change through tackling the threats facing the country's trees and woodlands.

Scotland: One of the least forested places in Europe

With just 19 per cent forest cover compared to an average of 38% across much of Europe, Scotland has much less woodland than other European countries.

The Scottish Government aims to create 18,000 hectares of new woodland each year, providing new habitat for wildlife and much needed wood resources in addition to helping reach net zero emissions.

"Scotland has ambitions to reach net zero by 2045, so it's vital that its trees and woodlands are protected, restored and expanded if it is to meet this target," says Shireen.

A decade of research

Over the past 10 years, the charity's Research and Innovation Grants have helped individuals and organisations take on important questions relating to native woodlands and their impact on climate change and biodiversity.

"Our grants are relatively small, up to £10,000, but our criteria are very flexible, which encourages approaches that push

boundaries", says Shireen. "The main thing we are looking for is that the ideas enhance and benefit our native woodlands and their contribution to wildlife, communities and carbon sequestration".

This year, for example, the charity is funding a project that is testing the hypothesis that relative levels of avian species richness within woodlands can be measured by extracting and identifying DNA filtered from the air. A research team from the University of St Andrews are carrying out physical and chemical analysis of oak tree rings to track tree growth and carbon cycling. And specialists from University of York, The James Hutton Institute and Forest Research are developing the first microsatellite markers to enable population genetic study of the Shining Guest Ant, a British Action Plan woodland specialist species.

"We are also happy to be funding our first project on Shetland that will provide a better understanding of their native trees and help to ensure their propagation," explains Shireen. "By gathering genetic data, the Shetland Amenity Trust will support the development of a tree and woodland strategy which will include conservation actions required for relict Willow trees. In addition, this project will help in development of future research projects that focus on other relict tree species at risk in the wild.

"Most of our grants have been awarded to projects that contribute to the conservation of natural heritage and/or promote wider public understanding. However, we also welcome applications that intend to solve practical problems to increase professional and community capacity for expanding, managing, enhancing native woodland."

Juniper (Juniperus communis) growing in the Shetland Islands, 130 miles north of the Scottish mainland (Credit: The Shetland Amenity Trust).

Planting and restoring native woodlands

As well as funding research, in 2021 the charity began a three-year pilot scheme to help boost Scotland's native woodlands – the Future Woodlands Fund.

The fund is being delivered with financial support from energy company bp and is piloting an incentive-based approach to encourage the establishment of new native woodland and the restoration of 'ghost woods' – severely degraded former native woodlands that have high ecological potential.

'Ghost' woodlands are relicts of old, or ancient woodlands, where less than 20% of the canopy cover remains. They have the potential to be restored back to functioning woodland ecosystems but are often in decline due to the impacts of heavy grazing pressure from deer or domestic livestock.

The Future Woodlands Fund is specifically designed to address some of the perceived barriers to native woodland creation by providing free advice and financial incentives.

It offers a range of options that offer simplicity and financial certainty for land managers and farmers to plant or regenerate native trees. Working with the UK Woodland Carbon Code and Scottish Government's Forestry Grant Scheme, it covers the cost of site assessments and Woodland Carbon Code validation with annual payments or carbon ownership. It also gives free access to a professional forestry agent to draw up the Forestry Grant Scheme application. Land managers can retain the carbon sequestered by their woodland if they wish to.

"Our ambition is that 1 million native trees are planted or restored using funds from the scheme, with the potential to lock up 235,000 tonnes of CO2 by 2080. This will deliver a real boost to biodiversity by supporting connectivity between small native woods and the wider habitat network."

Greening Scotland's cities and towns

With Future Woodlands Fund schemes underway across much of Scotland's rural landscape, the charity is now turning its attention to the role of trees in helping to create better, healthier and greener towns and cities.

"If Scotland is to succeed in meeting its net zero targets, all ecosystems need to be considered," says Shireen. "And trees have a critical role to play outside of large woodlands and forests."

Today, 80% of people in Scotland live in urban areas. To tackle climate change, create cleaner, more sustainable cities, and improve the lives of people within them, urban greening is being adopted by cities and organisations globally to build better relationships between people and places.

Research shows that planting trees can help control surface water flooding, improve air quality, save energy in buildings for heating and cooling, enhance human wellbeing and can bring significant economic benefits.

FWS believes that all of Scotland's town and cities should aspire to reach the 3-30-300 standard, developed by urban forestry academic Professor Cecil Konijnendijk van den Bosch.

The '3:30:300 rule' is an evidence-based rule which states that everyone should be able to see at least three trees from their home; there should be a minimum of 30% tree canopy cover in each neighbourhood; and 300 metres should be the maximum distance to the nearest high-quality public green space.

In August, FWS appointed Treeconomics and the Nature Based Solutions Institute for a four-month project to identify options and make recommendations to ensure a potential £10M urban forestry fund is delivered in a way that has maximum impact across Scotland.

Edinburgh, where woodland canopy cover is 17% (Credit: Future Woodlands Scotland).

They will explore the feasibility of projects and activities that include tree planting and greening initiatives, in consultation with communities, to deliver environmental, social and economic benefits.

"As a charity, I believe we have a small but important role to play in boosting biodiversity in our patch in the world," says Shireen.

futurewoodlands.org.uk

Association News

Prince of Wales announces pan-Commonwealth QCC commitment

Following initial commitment by seven countries at its launch at the Commonwealth Heads of Government Meeting (CHOGM) in Malta seven years ago, His Royal Highness The Prince of Wales announced pan-Commonwealth commitment to The Queen's Commonwealth Canopy (QCC) at the CHOGM Opening Ceremony in Rwanda

Announcing this achievement, The Prince of Wales remarked: "Throughout her Reign, The Queen has placed, and continues to place, the greatest importance on the common friendship, humanity, and values that all of us share… and I know how grateful she is that, in recognition of Her Majesty's unstinting service to our Commonwealth family, all Commonwealth Member States have announced that they have now committed themselves to The Queen's Commonwealth Canopy."

Since its launch, more than 115 sites and projects around the Commonwealth have been dedicated to the initiative, conserving more than 12 million hectares of indigenous forests and botanical gardens. From the dense tropical forests of Barbados and Papua New Guinea to the dry woodlands of Malawi, and from the coastal mangrove forests of Maldives to the native pine forests of Cyprus, the QCC demonstrates the value of the Commonwealth working together in common cause to conserve forests for future generations.

Conceived by the Rt. Hon. The Lord Field of Birkenhead, CH, PC, DL, the QCC has been led by the Royal Commonwealth Society, in partnership with Cool Earth and the Commonwealth

The then HRH The Prince of Wales announces pan-Commonwealth commitment to the QCC at CHOGM in June.

Forestry Association, and is the first environmental initiative in The Queen's name.

The Executive Chair of the Royal Commonwealth Society, Dr Linda Yueh, said: "The QCC is a truly remarkable example of the Commonwealth taking concrete action to create a brighter, common future for its 2.5 billion citizens.

This initiative has seen government and non-government actors come together to conserve a vast range of forest types around the Commonwealth, including several UNESCO World Heritage sites and forests that our Patron, The Queen, has visited during her 70 years of service to the Commonwealth. It is a delight to announce this pan-Commonwealth commitment during this momentous year and we look forward to welcoming new members to the QCC as the Commonwealth family grows in the future."

Alan Pottinger, Executive Director of the Commonwealth Forestry Association, said: "People and forests need each other, and it is this important concept that lays at the heart of this wonderful initiative. With project sizes varying from those covering millions of hectares to those covering just a few, the QCC demonstrates the ability of the Commonwealth to act together to conserve one of its most important habitats – forests."

From 'Commonwealth Voices – August 2022'
MORE INFORMATION https://www.royalcwsociety.org/qcc

Forest Scenes

COP27: Leaders boost sustainable forest management

Important progress on sustainable forest management and conservation has been made at the UN Climate Change Conference COP27 in Sharm el-Sheikh with the launch of the **Forest and Climate Leaders' Partnership (FCLP)**, which aims to unite action by governments, businesses and community leaders.

The Partnership aims to boost action to implement a commitment made by over 140 countries at COP26 in Glasgow last year to halt forest loss and land degradation by 2030 and to convert ambition into results on the ground.

A key report published this year by the UN's Food and Agriculture Organization (FAO) – the **State of the World's Forests Report 2022** – highlights the need to step up action to unlock the potential of forests in tackling climate change and biodiversity loss.

Only by stepping up efforts to reduce deforestation and implementing other mitigation activities in the forest sector can the Paris Agreement goal of limiting global average temperature rise to 1.5 degrees above pre-industrial levels be reached.

Twenty-seven countries, representing over 60% of global GDP and 33% of the world's forests, have already joined the new partnership and are committed to leading by example on one or more of the FCLP's action areas.

These include mobilizing public and donor finance to support implementation, supporting Indigenous Peoples' and local communities' initiatives, and incentivizing the conservation of high-integrity forests.

Credit: Crystal Mirallegro/Pixabay.

"This alliance is an opportunity to implement solutions that reduce deforestation, that increase forest restoration and strengthen the livelihoods of people living in forest areas," said Gustavo Manrique Miranda, Minister of the Environment and Water, Ecuador.

President of the European Commission, Ursula von der Leyen, on behalf of the European Union, said: *"Only with healthy forests can we deliver on our shared climate commitments under the Paris Agreement. And only with intact, lively forests can we address biodiversity."*

Ensuring accountability

Government representatives meeting at COP27 announced that of the $12 billion committed in Glasgow to protect and restore forests over 2021–2025, $2.67 billion have already been spent and that public and private donors have committed a further $4.5 billion since COP26.

To ensure accountability, the FCLP will hold annual meetings and publish an annual Global Progress Report that includes independent assessments of global progress toward the 2030 goal, and progress made by the FCLP itself.

A new momentum for REDD+

Meanwhile, developing countries are taking ongoing concrete actions to protect forests under the Reducing Emissions from Deforestation and forest Degradation (REDD+) mechanism.

REDD+ provides a holistic framework for forest climate action, including by providing results-based payments for emission reductions achieved in the forestry sector. The renewed political and financial commitment towards forest climate action shown at COP27 is creating a new momentum for REDD+.

The framework for measuring, reporting and verifying forest-related emissions under UN Climate Change, included in the Paris Agreement, serves as a guide for all mitigation action in the forestry sector, independently of the source of results-based finance.

Around 60 developing countries are already implementing REDD+ activities under UN Climate Change, resulting in over nine gigatons of verified emission reductions.

Read more about REDD+ activities under UN Climate Change in a **new infographic** (at redd.unfccc.int/files/redd__infographic.pdf) and access information on REDD+ payments at the **UNFCCC REDD+ Info Hub** (at redd.unfccc.int/info-hub.html).

unfccc.int

Brazil election: Lula win hailed as victory for the Amazon

Luiz Inácio Lula da Silva, who campaigned to protect the rainforest, narrowly beat Jair Bolsonaro in the Brazilian presidential election

Defenders of the Amazon rainforest were overwhelmed with relief on 30 October as Luiz Inácio Lula da Silva narrowly secured Brazil's presidency.

Lula, who was president from 2003 to 2010, beat incumbent Jair Bolsonaro by just 1.8 per cent of votes in the divisive presidential election.

The tight victory could save the Amazon just as it has reached a crucial tipping point, say Brazilian environmentalists.

"During the past four years, the Amazon has been threatened, attacked and destroyed as the government openly promoted environmental crimes," says Erika Berenguer at the University of Oxford, who was in tears as she spoke to *New Scientist*. "It was like having to silence a scream inside you every day as you watched the object of your life, your career and passion destroyed. Lula's election is a victory not only for the region, but for humanity and life itself."

Deforestation soared to a 15-year-high as Bolsonaro publicly promoted the development of the rainforest, diluted environmental regulation and gutted key environmental institutions of funding and expertise.

The amount of the Amazon being cleared is now nearly 75 per cent higher than when Bolsonaro took office in 2019 and the 13,000 hectares lost in 2021 was the largest annual figure since 2008.

In contrast, Lula has campaigned to protect the rainforest and deforestation plummeted by 72 per cent between 2004 and 2016, when Lula and his successor, Dilma Rousseff, were in power.

Lula has pledged to remove illegal miners and ranchers clearing the Amazon. Among his more ambitious proposals are the subsidisation of sustainable farming, the creation of a ministry dedicated to Indigenous peoples and a national climate change authority that ensures Brazil's policies are in line with its Paris Agreement goals.

His administration is expected to set new climate targets after they were rolled back by Bolsonaro, says Natalie Unterstell, a Brazilian climate change policy expert at the think tank Talanoa.

Rebuilding environmental institutions and removing illegal groups from the Amazon will be challenging, particularly with a divided congress and a narrow electoral mandate, environmental campaigners warn.

"Stopping the slaughter of indigenous peoples and the devastation of the Amazon will require countering powerful gangs and, very often, the interests of allies and supporters in local governments and the Parliament," said Marcio Astrini, executive secretary of the Brazilian Climate Observatory, in a statement.

A series of bills proposed by Bolsonaro, including the legalisation of mining on Indigenous land, could also be approved in the two months before Lula takes office on 1 January.

Environmental groups have said that they won't hesitate to call out Lula – who has been criticised for overseeing the construction of a megadam in the Amazon – for missteps, and that they expect him to do more than simply reverse the damage caused by his predecessor.

"As the leader of one of the six biggest carbon emitters at a time when the effects of climate change are accelerating around the world, Lula needs to ensure that Brazil increases the ambition of its pledges to the Paris Agreement. Humanity has just 84 months to cut emissions to safeguard the 1.5°C target. Brazil is part of both the problem and the solution," said Astrini.

Lula's victory should be a boon not just for the Amazon, but also for Brazilian universities, healthcare and broader science, where Bolsonaro has also cut funding and filled senior posts with unqualified allies.

He slashed public funding for science and technology research by almost half, to its lowest level in more than a decade, and accused public research institutions of falsifying data.

A 2021 inquiry by the Federal Senate of Brazil concluded that Bolsonaro should be charged with "crimes against humanity" for allowing covid-19 to tear through the country, leaving 687,000 Brazilians dead.

The narrow margin of Lula's victory added to concerns that Bolsonaro could contest the result. The outspoken president has regularly alleged that voting machines are manipulated, without providing evidence.

"We are content that the elections have been held according to the law and, in spite of some incidents, hope that President-elect Lula will give Education and Science, as well as Health, the Environment and Culture the importance they had in his previous government," says Renato Janine Ribeiro, president of the Brazilian Society for the Advancement of Science.

newscientist.com

Various ways to represent timber yield sustainability from selectively logged forests

The concept of sustainability, formulated by foresters centuries ago, has since been extended to other resources and realms to the point that the concept has lost much of its meaning. Lamentably, 'sustainable' often means no more than 'responsible' (Figure 1); there is even a Journal of Sustainable Mining. In a recent review of concept of sustainability as it pertains to timber volume yields points out many of the available options for evaluating what foresters long-ago envisioned (Putz et al. 2022). Most pointedly, the authors explore three different accounting practices that can disguise diminished yields. First, yields can be sustained but at a lower level than the first harvest – the authors refer to the difference as the 'primary forest premium.' If with every harvest, new species can be included in the mix, which is referred to as 'logging down the value chain,' species can be sequentially extirpated. Finally, if with each harvest smaller trees with worse qualities are included, yields might appear to be sustained while the forest is degraded. While this review provides useful clarifications of an important concept, it overlooked the approach used to evaluate the sustainability of timber harvests in Central Africa.

In contrast to the approaches reviewed by Putz et al. (2022), stock recovery in the six Congo Basin countries is typically reckoned by the numbers of trees expected to grow to be larger than the minimum cutting diameter by the end of the cutting cycle (e.g., Picard et al. 2009). In some countries, concessionaires could base sustainability on expected recovery of timber volumes as predicted with the same data and matrix models, but few exercise this allowable harvest-reducing option. Government-required recovery of exploitable stock expected at the end of

the cutting cycle to that stock at the beginning of the cutting cycle varies from 50–100% depending on regulations, species, stocking, and expected tree growth and mortality rates of trees smaller than the minimum cutting diameter (i.e., future crop trees). Required recovery values less than 100% could reflect the 'primary forest premium' for first harvests but represents stock depletion when applied subsequently. Data on species-specific size-class frequency distributions are derived from inventory data whereas growth and mortality rate data need to come from permanent sample plots as supplemented with scattered trees (i.e., 'sentiers') of commercial species (e.g., Ligot et al. 2022). The approach to timber stock reconstitution based on numbers of trees larger than species-specific minimum cutting diameters is referred to as 'ecological' as opposed to 'economic' or 'volumetric' sustainability insofar as it prioritizes maintenance of genetic diversity within species populations rather than timber volumes (Collectif DYNAFAC 2022). Concerns about the potential for diminishing volumes notwithstanding, this straighforward approach deserves consideration when formulating policies for assessing the sustainability of timber yields from selectively logged forests.

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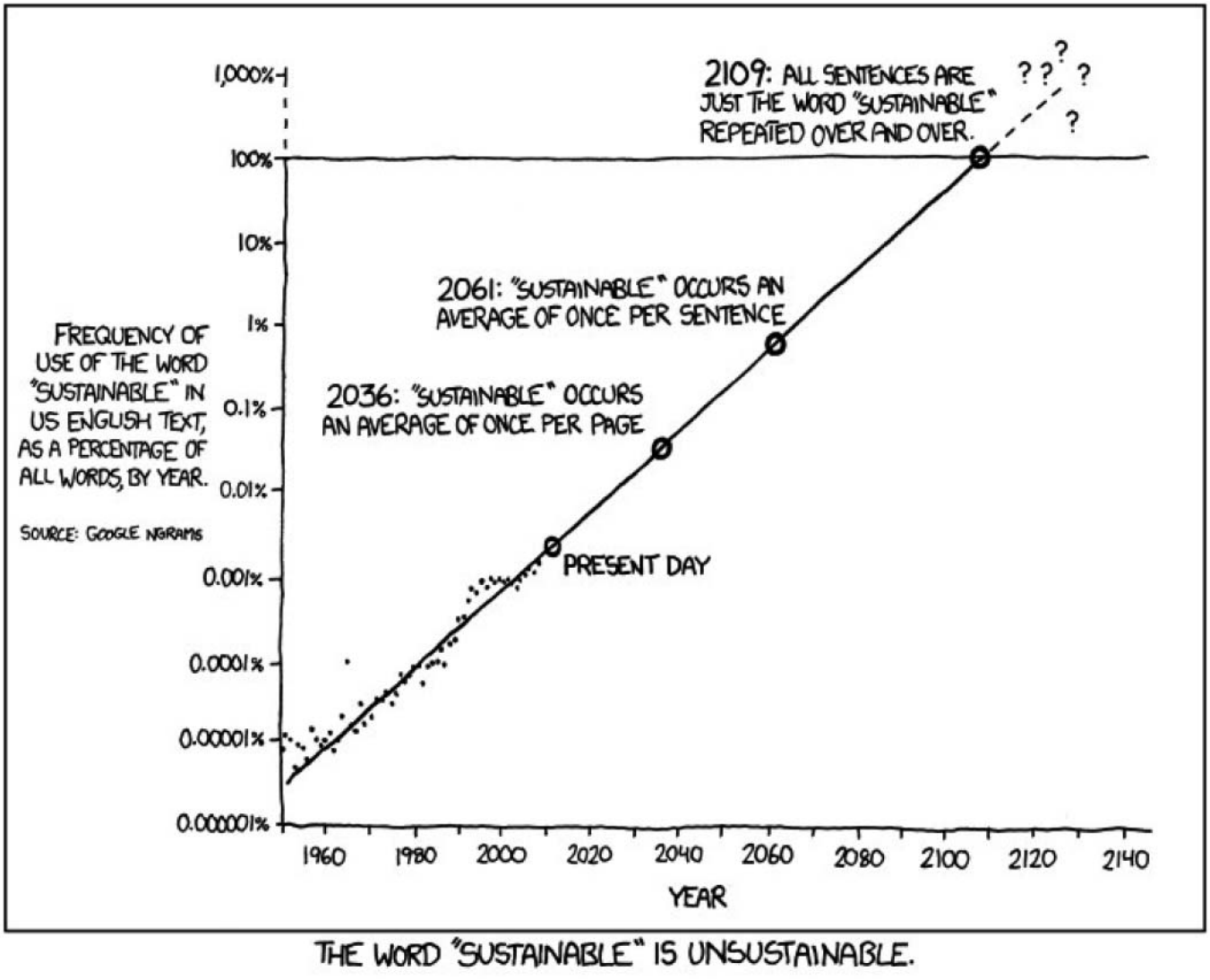


Figure 1: https://www.comicsenglish.com/comics/the-word-sustainable-is-unsustainable

Kenyan government halts baobab exports to Georgia after outcry

President orders Ministry of Environment and Forestry to launch investigation over contractor's licence for removing trees

An uprooted baobab tree awaiting export in Kenya's Kilifi region last month. (Photo: Edwin Ndeke/The Guardian)

The Kenyan government has halted the transportation and export of Kilifi baobabs to Georgia and ordered an investigation into how a foreign contractor received permission to transport the ancient trees out of the country.

Kenya's president, William Ruto, ordered the Ministry of Environment and Forestry to investigate whether Georgy Gvasaliya had the proper licence to take the trees out of Kenya under the Nagoya protocol, an international agreement that governs the conditions for the export of genetic resources, which has been incorporated into Kenyan law.

The protocol requires communities to give prior informed consent to any exports, and an agreement between whoever is taking them, the government and the community, on how the benefits should be shared.

The move followed the Guardian's report last month on growing concern over the uprooting and transportation of the trees from the Kilifi region, on the Kenyan coast, at a time when the country is trying to recover lost forest cover. Kilifi has experienced the third-highest rate of tree-cover loss in Kenya over the last two decades.

Baobabs can live for thousands of years, are drought-resistant and provide habitats for a number of species. They produce fruit that contains high levels of vitamin C, antioxidants, calcium, potassium and fibre, and powder found in the fruit is used in smoothies and porridge. The bark has medicinal properties, and oil from the seeds is used in beauty products.

Outrage over the export of the trees, and debate among Kenyans over the need to protect the country's environment and resources, gained the attention of the president, who intervened in the export of the eight baobabs this week.

Ruto tweeted: "There must be adequate authorisation and an equitable benefit sharing formula for Kenyans. Further, the exercise must be in line with the government's agenda of planting 15bn trees in the next 10 years."

Shortly after posting the tweet, the Ministry of Environment and Forestry issued a statement that said the environmental impact assessment licence issued to Gvasaliya in October, allowing the trees to be uprooted and exported, had been given "irregularly".

The ministry halted the transportation with immediate effect, saying the trees could not be taken out of the country until agreements on their export were "regularised". It said action would be taken against any government official found not to have followed the correct procedures when processing the licence, amid public calls for accountability.

A baobab tree that was marked for export after being uprooted but was subsequently abandoned, in the Kilifi region. (Photo: Edwin Ndeke/The Guardian)

Sofia Rajab, a human rights lawyer, said: "We need to see accountability for the failures in the system that allowed this to happen."

The Guardian has learned that the eight trees were being exported to Shekvetili Dendrological Park, owned by Georgia's former prime minister Bidzina Ivanishvili, who has been involved in other tree-uprooting activities along the Georgian coast.

Environmental groups welcomed the government's announcement.

"This has sent a clear message to the world that the exploitation of Kenya's biodiversity can only happen when Kenyans are meaningful beneficiaries," said Gus Le Breton, chair of the African Baobab Alliance. "It has big implications globally in terms of reiterating the importance of the Nagoya protocol to regulate trade and biodiversity."

theguardian.com

Brazil: What Lula's stunning victory means for the imperiled Amazon rainforest

Brazil, the largest nation in South America and home of the iconic Amazon rainforest, will have a new leader come January 1: Luiz Inácio Lula da Silva. In the runoff election Sunday, Lula, as he's widely known, beat incumbent President Jair Bolsonaro, earning just over 50 percent of the vote.

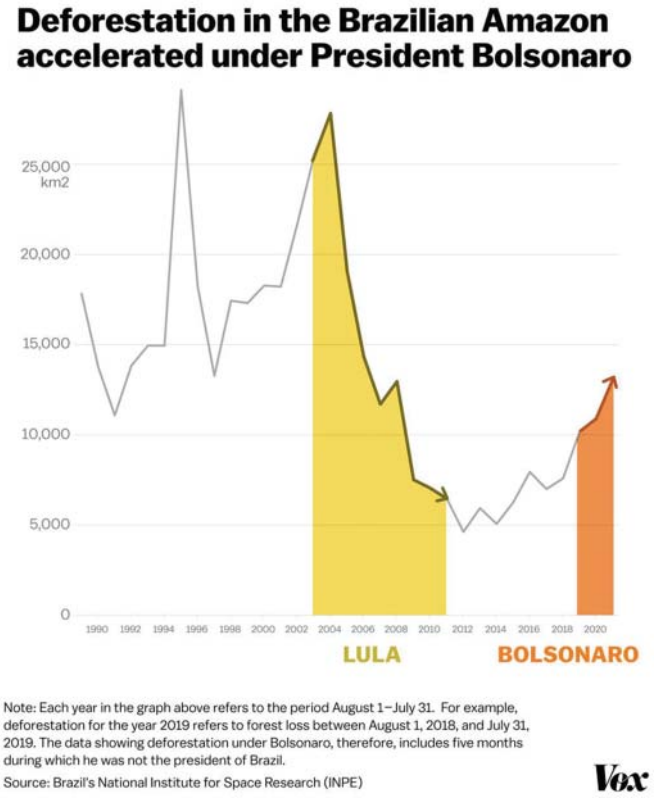
It was a historic defeat and a sensational comeback for Lula. After serving two terms as Brazil's president, between 2003 and 2011, Lula went to jail for corruption, though he was later freed after the Supreme Court overturned his convictions. Bolsonaro, meanwhile, is the first president to lose reelection in the 34 years of the nation's modern democracy. (He has yet to concede.)

The results also represent a historic moment for the Amazon rainforest.

Under President Bolsonaro, deforestation accelerated, threatening not only wildlife and Indigenous communities but also the global climate. But Lula has promised to give the forest a second chance. "Let's fight for zero deforestation," Lula said Sunday night after his victory. "Brazil is ready to resume its leading role in the fight against the climate crisis, protecting all our biomes, especially the Amazon forest."

Lula often points to his track record to prove he can succeed: During his presidency, deforestation in the Brazilian Amazon fell by more than 80 percent, meaning there was less forest loss. An analysis by the climate website Carbon Brief suggests that under

Lula's next administration, annual deforestation in the Brazilian Amazon could be down by nearly 90 percent by the end of the decade.



What Lula's stunning victory means for the imperiled Amazon rainforest© Amanda Northrop/Vox

"Everything that Lula has said, and even his track record, would indicate that he's going to undo the brutal regressions of the Bolsonaro regime," Christian Poirier, program director at the nonprofit advocacy group Amazon Watch, told Vox in September.

Few political issues have higher global stakes than the conservation of the Amazon. Felling the rainforest not only erodes a critical carbon sink, which helps suck planet-warming gases out of the atmosphere, but also fuels climate change. Ongoing deforestation could also trigger a runaway reaction that may turn regions of the rainforest into a savanna-like ecosystem, stripping the forest of its many ecological benefits and natural wonders.

What Bolsonaro did to the Amazon rainforest, briefly explained

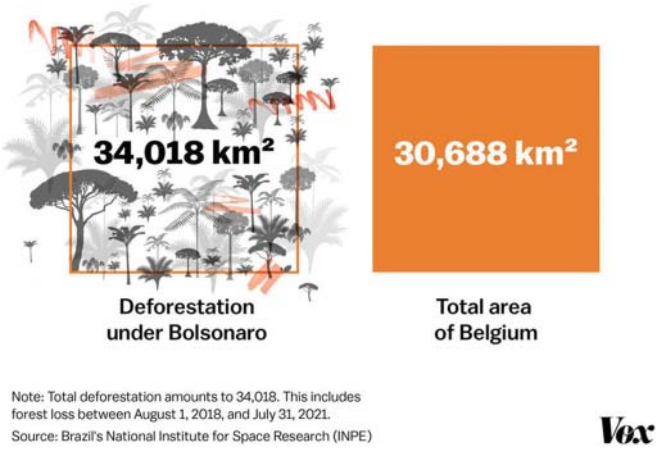
Brazil was once a poster child for conservation. For much of the past two decades, the nation protected Indigenous lands, cracked down on illegal logging, and began monitoring forest loss more carefully, resulting in a precipitous decline of deforestation.

In 2004, the Amazon lost a staggering 28,000 square kilometers (roughly 7 million acres), but by 2012, that figure had fallen to just 4,600 square km (1.1 million acres), according to Brazil's National Institute for Space Research, known as INPE. The destruction remained relatively low over the next few years.

Then, in 2019, Jair Bolsonaro came into power.

The right-wing leader stripped enforcement measures, cut spending for science and environmental agencies, fired environmental experts, and pushed to weaken Indigenous land rights, among other activities largely in support of the agribusiness industry. (A representative of the Brazilian government told Vox in September that it's fully committed to reducing deforestation in the Amazon and is working to that end.)

Between August 1, 2019, and July 31, 2021 – a period that largely overlaps with Bolsonaro's first three years in office – more than 34,000 square km (8.4 million acres) disappeared from the Amazon, not including many losses from natural forest fires. That's an area larger than the entire nation of Belgium, and a 52 percent increase compared to the previous three years.



What Lula's stunning victory means for the imperiled Amazon rainforest© Amanda Northrop/Vox

Now, about 17 percent of the Amazon rainforest is gone, according to a report from 2021. Scientists estimate that if that number reaches 20 to 25 percent, parts of the tropical ecosystem could dry out, further accelerating forest loss and threatening the millions of people and animals that depend on it.

The largest rainforest on Earth, the Amazon is home to a truly remarkable assemblage of species, including 14 percent of the world's birds and 18 percent of its vascular plants. Many of them are found nowhere else. Losing organisms to deforestation erodes essential functions including the production of oxygen and storage of carbon, on which we all depend, and undermines scientific discovery. Many medicines are derived from Amazon plants, yet just a fraction of the forest's species have been studied.

A second chance for the Amazon under Lula

An icon of the left and a leader of Brazil's Workers Party, Lula has repeatedly pledged to protect the Amazon. Critically, Marina Silva, a prominent environmental advocate and former environmental minister, endorsed him earlier this fall, helping Lula beat Bolsonaro. That made Lula the "greenest" candidate in this year's race, according to Observatório do Clima, an environmental coalition in Brazil.

But the best indicator of Lula's ability to quell deforestation is what he's done in the past, according to several environmental advocates. When he came into power in 2003, deforestation in the Brazilian Amazon was at an eight-year high, at more than 25,000 square km (6.3 million acres). 2004 was even worse. "He inherited an environmental catastrophe," Poirier said.

Then his administration – largely, at the direction of minister Silva – began implementing existing laws to safeguard the Amazon, including enforcing a law called the Forest Code, and

getting various government agencies to work collaboratively to curb forest loss. As the chart above shows, deforestation fell dramatically between 2004 and 2012, and Lula was in power for most of that time.

"Let's go back to doing what we've been doing," Lula said in a June radio interview. "We have to take care of the forest and the Amazonian people."

Deforestation is unlikely to stop altogether once Lula takes office. Bolsonaro's party still dominates Congress and will likely continue supporting the cattle industry, which is behind nearly all forest loss in the Brazilian Amazon. The country also faces an economic crisis and fallout from mismanaging the coronavirus pandemic, and it's not clear exactly how Lula will prioritize these competing crises. There's also a question of whether Bolsonaro will accept defeat.

Still, environmental advocates celebrated the win.

"The nightmare is due to end at last," Observatório do Clima wrote in a statement Sunday. "The president-elect is remarkably well positioned to implement the socio-environmental turnaround the country so badly needs."

msn.com

To survive in a changing climate, we must look to forests

HIGHLIGHTS

- Forests and trees can provide a life support system for millions of people around the world.
- That function will become increasingly important as temperatures rise and weather becomes more volatile.
- It is time to invest in forests and trees – and the Indigenous Peoples and local communities who manage them – as a key part of our strategy for adapting to climate change and coping with ever increasing risks and unpredictability.

By Tiina Vähänen, Deputy Director, Forestry Division, and Amy Duchelle, Senior Forestry Officer, Food and Agriculture Organization of the UN

History shows that in times of crisis, human beings can rapidly learn to think and do things in new and better ways. Now is one of those times. The world is facing an existential crisis due to climate change, and we must learn to protect, restore, and manage natural ecosystems sustainably to help us to adapt and thrive.

How we adapt to climate change is a key part of this month's Sharm El-Sheikh Climate Change Conference (UNFCCC COP27) agenda and will increasingly dominate global debate as the window of opportunity for keeping global temperature rise below 1.5°C closes. Yet adaptation strategies have tended to focus on technological fixes instead of those that nature can provide.

Forests and trees are widely recognized for their potential to mitigate the effects of climate change by storing carbon, making them vital to achieving SDG 13 (climate action). But forests do much more than that. Forests are as crucial to ensuring our water supplies as they are to reducing greenhouse gas (GHG) emissions. They regulate rainfall, stabilize local climates, and protect coastal land from erosion. They also provide food, fuel, timber, and animal fodder and reduce the risks and impacts of extreme weather on local communities. Forests and trees can provide a life support system for millions of people around the world. That function will become increasingly important as temperatures rise and weather becomes more volatile.

It is time to invest in forests and trees – and the Indigenous Peoples and local communities who manage them – as a key part of our strategy for adapting to climate change and coping with ever increasing risks and unpredictability. Protecting, restoring, and managing forests sustainably must be prioritized and funded as a vital part of national adaptation and resilience policies, and supported by the international community.

Part of this must be a strategy to help forests and trees themselves to adapt to the increasing risks they face from climate change in the form of wildfires, pests, and disease outbreaks and drought. We must work with local communities to develop innovative ways to manage forests and trees in anticipation of these risks. Investing in forests and trees in this way could reduce climate-related risks and negative impacts on human life. This would also preserve the power of forests to continue to act as carbon sinks.

The Food and Agriculture Organization of the UN (FAO) and the Center for International Forestry Research and World Agroforestry (CIFOR-ICRAF) have worked with leading experts to draw up ten principles to guide decision makers on using forests and trees to promote transformational adaptation, which are illustrated through case studies in a new FAO report. One of these guiding principles focuses on policy integration – or linking forest and tree management to other policies that address climate-related risks.

This is illustrated in the report by how Colombia – a country where half of the forests are in Indigenous territories – promotes community forestry as a way to meet adaptation and mitigation goals. Finance generated through Colombia's efforts to reduce deforestation is used to strengthen community forestry organizations, help them access markets for their products, and improve local forest monitoring. This also enables those who protect and manage the country's forests to improve their capacity to adapt to climate change.

Around the world, Indigenous Peoples and local communities have the knowledge and the experience to become the agents of change that will help humanity thrive in the face of extraordinary adversity. It is clear that, with the right support, community forest enterprises can thrive, degraded landscapes can be restored, and traditional rights to forests and trees can be secured, and forests can be protected.

Such locally led adaptation strategies are essential to supporting livelihoods and resilient forests in a changing world.

sdg.iisd.org

Forestry at a tech conference? How nature has become the most popular topic in tech

Angeline Chen, president of the coral reef-nonprofit Global Coralition, ended the Wednesday keynotes at GreenBiz's VERGE 22 event by asking everyone to take two deep breaths.

"The first one came from the oceans and the second came from the forests," she said.

It's unusual for land, forestry and agriculture to be top of mind at a tech conference, yet nature can be as powerful a tool as engineered technology in the fight against climate change. However, the methodologies have been lacking in terms of guidance and investment in this particular type of tech, derived from natural systems.

"Part of the difficulty is that this is actually the [forestry, land and agriculture] sector that needs to go to net zero the fastest," said Martha Stevenson, senior director of forestry research and strategy at the World Wildlife Fund, during a panel talk on science-based targets for food, ag and forestry. "Land use change and forestry emissions need to go to zero by around 2030 if we want to keep 1.5 [degrees Celsius of warming] on the table. And then this is also the sector which is the last to get the guidance on how to do the accounting."

Stevenson was referring to the recently released Forest, Land and Agriculture (FLAG) Science Based Target Setting Guidance set by the Science-Based Targets Initiative. This sector contributes to 22 percent of global emissions each year, which corporations have had a hard time incorporating into their climate strategies and goals because they are not strictly "climate," she said.

According to the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES), the major drivers of nature loss are land use change, pollution, invasive species, climate change and direct exploitation of the natural resources. Climate is not a clear link to four out the five, with climate change as the outlier.

The FLAG guidance was created to help sustainability experts inside companies translate how land use is integral to climate change to their executives, so that companies can better account for the good work they are doing on forestry or regenerative agriculture programs.

20% of the global forests are respiring more than they are sequestering for at least 3 months out of the year. When you breathe out more than you breathe in, you are dying.

According to Christa Anderson, director of climate science and carbon metrics at WWF, the FLAG guidance includes an Excel modeling tool for companies to account for their emissions and set a target, as well as background guidance on how to reduce emissions to meet that target, and a methodology section to understand how the guidance and accounting was created. Anderson outlined the three big buckets of emissions created by WWF: land management such as fertilizer production, flooding soil for rice, transport of biomass; carbon removals and storage; and land use change such as deforestation and forest degradation.

The FLAG guidance also requires companies to commit to zero deforestation from commodities with a target date no later than 2025. The FLAG guidance is bullish on forestry for a succinct and clear reason:

"Twenty percent of the global forests are respiring more than they are sequestering for at least three months out of the year," Stevenson said. "When you breathe out more than you breathe in, what does that mean? You are dying."

[Catch up on all of our coverage of VERGE 22.]

In another discussion about putting nature-based solutions into practice, Anna Rathmann of the Jane Goodall Institute relayed one of her favorite stories about famed primatologist Goodall. Rathmann described how, flying into Tanzania, Goodall saw the Bombay National Park as a small island of green surrounded by development and realized that if forests aren't protected and restored, all that will be left with are such small islands.

Bambi Semroc, senior vice president of the Center for Sustainable Lands and Waters at Conservation International, is working with corporate partners to figure out how to maintain pristine forests for future generations.

"We're going into uncharted territory," she said. "Does anybody know what being a nature-positive [company] looks like at this point in time? No. We're about to venture into that."

Innovation is happening to help protect nature, as evidenced by the development of the FLAG guidelines from WWF. There is also innovations in new business models to value nature's impact on the climate crisis such as carbon credits for forestry projects. A huge startup ecosystem that has popped up around these carbon crediting schemes as entrepreneurs smell an oppurtunity. For example, earlier this year Pachama raised a $55 million funding round and NCX raised $50 million including from Salesforce CEO Marc Benioff. The American Forest Foundation's methodology for dynamic baselines was approved by Verra, a carbon credits registry, last week to better measure additionality claims of such forestry projects. Nature is being seen as a true climate technology. But even with this momentum, experts are still worried about inaction.

"Don't wait for perfect numbers – just get started," Stevenson said. "I feel like too often we kind of wait for the perfect measurement, we wait for the perfect definitions, we delay action, and everybody points at each other and nothing changes. Don't wait, please get started."

greenbiz.com

What a hundred women can do

New resource: ODEF officials and local women inspect recently planted teak trees on 12 hectares of previously degraded land near Pagala-Gare village, Blitta, Togo. Photo: Abalo Kpatcha.

An ITTO activity has helped two women's groups in Togo create new forest resources by Cécile Bibiane Ndjebet Founder and President of the African Women's Network for Community Management of Forests – REFACOF (cecilendjebet28@gmail.com)

With support from an ITTO initiative, 100 women from two locally based groups in the Blitta and Lakes prefectures of Togo produced nearly 30 000 seedlings of forest tree species in a 12-month period and used them to restore 20 hectares of degraded lands. The outcome was 8 hectares of tree plantations and 12 hectares of agroforests (7 hectares of trees and maize and 5 hectares of trees and soybeans). The agroforests are already generating significant financial income, and the plantation will help address local needs for wood energy and timber.

"This project has enabled us to strengthen our technical and material capacities," said Ms Béatrice Sandji, president of the NOVISSI women's group. "we are proud to have tree plantations today and we have also mobilized large sums of money through the sale of maize and soybeans. We have stored large quantities of our production for the feeding of our families."

The initiative has aroused great interest among women in other localities and among local traditional authorities and sectoral administrations.

"It is a very important contribution to the restoration of landscapes in our country; it will also contribute to the reduction of pressure on forest resources," said Pyoabalo Alaba, Director General of the Office of Development and Exploitation of Forests (ODEF).

The success of this ITTO project shows what can be done with relatively small amounts of financial support.

The two women's groups do not intend to limit themselves to their current achievements. They would like to double the reforestation area and take the lead in the production and sale of tree seedlings in Togo.

The two groups are seeking additional support from ITTO to enable them to:

- continue monitoring, replanting, maintaining, surveilling and protecting the seedlings for the next two years to ensure a high survival rate;
- duplicate the activity in other prefectures to greatly increase the number of women producing seedlings for sale and reforestation and to help increase forest cover and create sustainable woodfuel resources; and
- develop other income-generating activities in the initiative's original area of influence to diversify women's sources of income and thereby increase their financial autonomy and the food security of their communities and reduce pressure on forests in the area.

"It's inspiring to see what 100 women can do in a year," said ITTO Executive Director Sheam Satkuru. "Imagine what a thousand, ten thousand, a million women could do."

This ITTO initiative was made possible by funding from Soka Gakkai.

ITTO.int

Forests in the desert: Why Mongolia is banking on a billion new trees to halt desertification

This forest has transformed a patch of the Gobi desert into a lush refuge. (Photo: Jack Board/CNA)

In Dalanzadgad, Mongolia, the greenery appears like an oddity in the distance. In the featureless expanse of Mongolia's southern Gobi, this is a literal oasis. There is nothing out here to cast a shadow, but the sun and skulls of fallen livestock. And for the past two decades or so, the growing forest of 82-year-old Baraaduuz Demchig.

Elm trees stretch towards the broad sky, and beneath them fruit plantations and sea buckthorn bushes grow in soil enriched by years of care and attention. Just metres away, on the other side of a steel perimeter fence, lies the realities of the Gobi desert. No plant could grow there in the rocky plains, at least not without more dedicated efforts from the mastermind of this green refuge.

The patch of desert surrounding Baraaduuz's property increasingly resembles a wasteland, struck by frequent droughts, overgrazed by hungry livestock and pillaged by mining companies. This is where the continent's regular dramatic and damaging yellow sandstorms are born, before moving across the region and blanketing cities.

The 16-ha greenery will not stop any of that, but it does give some immediate refuge from the elements. "In that spot you can't just plant vegetables as it is a windy spot. I needed cover from the elements. That is why I planted trees and made the trees cover for the vegetables I planted," Baraaduuz explained.

"The first year (1992) was difficult: it was a windy and sandy year. But in the second year, the trees were tall enough to protect my vegetables. I became a believer in trees and started to love trees. And people started to notice and asked me to give them trees and I started to plant more."And now from Ulaanbaatar to eastern provinces, my trees are growing," he said.

Overall, he estimates that he has helped plant more than 400,000 trees over three decades. That is a proud legacy. But it might just be a fraction of the trees that eventually get planted throughout Mongolia, as the government looks to sharpen its response to worsening impacts of climate change.

Desertification – where land degrades, becomes arid and loses its fertility – is now affecting more than 76 per cent of Mongolia's total land territory. Climate change and human activity are both to blame and the situation has serious implications for the lives of nomadic herders as well as the nation's food and water security.

Earlier this year, the country's president Ukhnaa Khurelsukh officially launched the One Billion Tree movement, an ambitious plan to reverse the relentless spread of the Gobi.

Mongolia aims to achieve the target by 2030, as part of its commitments to the United Nations Sustainable Development Goals. Various incentives will encourage more people, as well as mining companies and corporations, to be involved.

The province of Ömnögovi has pledged to plant 70 million trees and provide financial packages to individuals for maintaining new trees in the area. Specialists there have designated 900,000 ha of land for forestation.

According to climate scientists, the idea has strong merits. In a special summary by the Intergovernmental Panel on Climate Change (IPCC) released in 2019, it was reported that "native and other climate resilient tree species with low water needs, can reduce sand storms, avert wind erosion, and contribute to carbon sinks, while improving micro-climates, soil nutrients and water retention".

Baraaduuz Demchig has been planting trees for decades in Mongolia. (Photo: Jack Board/CNA)

The Mongolian government sees the economic potential on top of the environmental benefits. "The billion tree movement we should understand as a regional movement and we should understand it is an economic hinge. Just think about how many people we can provide with jobs," said Bat-erdene Bat-Ulzii, Mongolia's minister of Environment and Tourism.

"People can have additional income. Say if they are a herder they can plant trees in their native land and can get incentives from planting the tree. We will try to have a billion dollars circulating through the project. Not only do we need to look at it as an economic benefit but also as a way to increase Mongolia's GDP," he told CNA.

But there are red flags about national and international schemes to plant large numbers of new trees without proper processes.

AVOIDING PITFALLS

One only needs to look across Mongolia's southern border to China to see how mass tree planting can be problematic. The Great Green Wall program was an enthusiastic climate change solution enacted in 1987 to help prevent desertification in areas around the country's own Gobi region. A lack of understanding about which trees to plant and where has led to disease outbreaks and wide scale forest failures.

Tree monocultures have added extra forest cover but without the benefits of a considered planting of mixed species, including the ability for trees to remove carbon from the atmosphere. The concept has not been abandoned though. This year, President Xi Jinping committed the country to plant 70 billion trees to "green our planet, combat climate change and increase forest carbon sinks."

In Africa, another ambitious project to build an 8,000 km green wall across the width of the continent, from Senegal to Sudan, has been beset by problems.

For Mongolia, projects like this should not come at the expense of decarbonisation, according to experts. They also said that there is a need to avoid past pitfalls, which in some cases have actually caused ecological harm. "Yes it is important to plant trees, but we must do it in a mindful and considerate way," said Ganchudur Tsetsegmaa, a leading desertification expert at the Mongolian Academy of Sciences.

"We need to plant trees that are resilient during droughts, trees that grow in the Gobi, so that the plants can grow with very little effort and can grow on their own when they mature. And we also need to introduce technology that uses minimal water. Without these solutions, we will waste our water. The region doesn't have many springs and 80 per cent of the water comes from underground aquifers. If they dig 100m deep to get water and if we use that water for planting trees, we will have an ecological disaster," he said.

Baraaduuz's health now means it is increasingly difficult for him to travel to his desert oasis to tend to the trees. His grandson now cares for the forest, which has become a healthy business for the family. But he remains an active advocate for adopting a green thumb attitude in the middle of the desert.

"To avoid making mistakes when planting trees, listen to specialists who know how to do it. There is a Mongolian proverb that goes, 'Rather than listen to a monk who reads a formula, listen to a hag who went through adversity'." He added: "The ravine that I am in, in the winter it reaches -30 degrees Celsius, and in the summer it reaches 30 degrees Celsius. Two extremes, one very cold and one very hot. So if a tree is growing there, it proves a tree can grow anywhere.

"The only way to protect from desertification is to plant trees. So all that remains is to incentivise people who plant trees on their own."

channelnewsasia.com

Publications

Forests, water and land health are the natural capital of African montane forest ecosystems

By Rufino, M.C.; Ran, A.M.; Stenfert Kroese, J.; Ombogoh, D.B.; Jacobs, S.R.; Weeser, B.; Njue, N.K.; Sadadi, O.; Cerutti, P.O.; Mwangi, E.; Martius, C.; Quinton, J.N.; Breuer, L.

CIFOR

- This brief explains the impacts of conversion of indigenous forest to small- and large-scale agriculture on water, carbon and nutrient cycles, and the implications for forest, water and land health.
- Our long-term research in the Mau forest of Kenya quantified the negative effect of forest encroachment and poor agricultural practices on the natural capital of the communities living on the edges of the forest and the livelihoods of those downstream in the river basin, threatened by soil loss and nutrient pollution of water resources.


info brief

Forests, water and land health are the natural capital of African montane forest ecosystems

Key messages

Introduction

Forest, Water and Land health

Key finding 1

- We propose practical solutions that tackle the root cause of the problem and increase community resilience aligned with the implementation of existing national and sub-national policies designed to protect natural resources.
- Solutions include the promotion of regenerative, holistic agricultural practices that preserve natural capital. In addition, enhanced governance of natural resources at the local level through joint activities between forest and water associations will contribute to the effectiveness of initiatives to improve simultaneously forest, water and land health.

Download at www.cifor-icraf.org/knowledge/publication/8661/

Halting deforestation from agricultural value chains: the role of governments

FAO

Government action in stopping deforestation, how grazing livestock can help restore degraded land, and farmer field schools all featured in reports released by the Food and Agriculture Organization of the United Nations (FAO) at the FAO-Global Landscapes Forum digital forum **Transforming agri-food systems with forests.**

Governments have a crucial role to play in halting deforestation so that our agrifood systems are sustainable, according to **Halting deforestation from agricultural value chains: the role of governments**.

Global population growth means that by 2050 we are predicted to need 50 percent more food than in 2012. Agricultural expansion already drives nearly 90 percent of deforestation, and forests must be protected and managed sustainably to help combat climate change and biodiversity loss.

The report explains how this challenge presents an opportunity to transform the global food system so that both agriculture and forests benefit and it underlines the central role of governments in bringing about this transformation.

"We must build sustainable global agri-food systems based on the synergies between agriculture and forests that provide a win-win outcome for both sectors," said Tiina Vähänen, Deputy Director of FAO's Forestry Division.

"Moving to a more sustainable approach to food production will increase agricultural production in coming years while also helping to meet the globally agreed 2030 target for ending deforestation."

'Forest positive' food production

The report charts progress made towards ending deforestation and systems put in place by the international community, governments and the private sector to decouple agricultural production from deforestation.

To meet the 2030 target to halt deforestation, the report recommends – among other important actions – that governments create the conditions for farmers to change their practices to maximise production while minimising the impact on forests and biodiversity.

The paper summarises approaches for governments to decouple deforestation from agricultural commodities that are associated with deforestation and forest degradation, such as beef, soy, palm oil, coffee, cocoa, rubber and others.

The report recommends that governments pay special attention to smallholder farmers, who produce roughly 35 percent of the world's food, but often live in poverty and cannot afford the costs or interruptions to income incurred through changing the way they work.

According to FAO's Global Forest Resources Assessment, we have lost 420 million hectares of forest through deforestation since 1990, and deforestation continues although the rate slowed from 12 million hectares per year in the period 2010–2015 to 10 million hectares per year in the period 2015–2020. Concerted efforts are needed to halt deforestation and governments have a central role in transforming agrifood systems.

Restoring degraded land

Grazing livestock are often considered a threat to forests and landscapes because they can damage vegetation and erode soil.

But Grazing with Trees highlights how, when properly integrated, livestock grazing can play a key role in restoring degraded land with trees, halting desertification and improving wildfire prevention in drylands.

Finding such a balance is of global importance given that drylands are home to about 25 percent of the global population, contain 50 percent of the world's livestock, 27 percent of the world's forests, and is where about 60 percent of the world's food production takes place.

The report explains that woody plants in drylands provide animal feed, timber and fruit as well as helping to increase biodiversity and regulate soil and water cycles. At the same time, grazing livestock help control vegetation (reducing the risk of wildfires), accelerate nutrient cycles and improve soil fertility.

"When livestock and trees are managed well together, it creates an integrated agroforestry system that can boost local ecosystems and enhance food security," Tiina Vähänen said.

The report explains the benefits of silvopastoralism, which combines animal grazing and trees, and recommends this traditional knowledge be shared and updated through peer-to-peer learning and training.

Silvopastoralism's potential to create alternative livelihoods, enhance the food security and income of local communities and prevent land degradation could have a transformative effect on the production and sustainability of drylands globally, according to the report.

Part of the solution

Landscape planners and decision-makers should consider livestock as part of the solution, the report recommends, and carefully restore open tree cover – when tree cover is between 30 and 70 percent – as part of an integrated landscape approach using agroforestry to promote healthy ecosystems.

The report follows FAO's flagship publication, **The State of the World's Forests 2022**, which emphasizes the importance of halting deforestation, restoring degraded lands and expanding agroforestry, and creating green value chains.

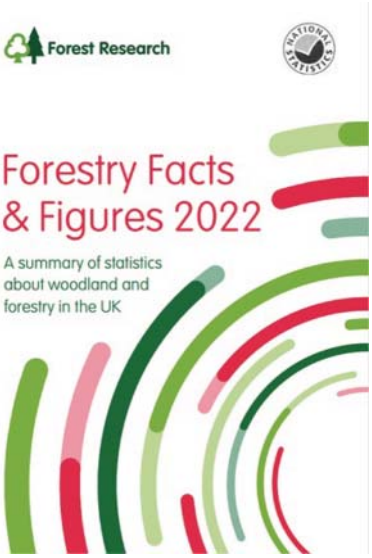
Download at www.fao.org/3/cc2262en/cc2262en.pdf

Forestry Facts and Figures 2022

New Forest Research Statistics

The latest National Statistics on forestry compiled by Forest Research on behalf of the forestry authorities in England, Scotland and Northern Ireland, were released on 29 September 2022 according to the arrangements approved by the UK Statistics Authority.

Forestry Facts & Figures 2022 is an extract of the detailed statistics contained in the web publication Forestry Statistics 2022. It includes UK statistics on woodland area, timber and wood products, imports and exports, economics, employment, woodland visits, international comparisons, and the environment. The full Forestry Statistics 2022 publication can be found online at: www.forestresearch.gov.uk/tools-and-resources/statistics/

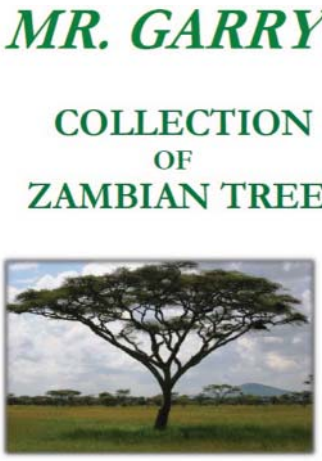


This new Forest Research Statistics publication can be downloaded from: www.forestresearch.gov.uk/publications

Printed copies are free and can be ordered from the address opposite, quoting stock code FRFS022.

Greetings

My name is Garry Brooks. I am a proud Canadian that has spent my 77 years living very closely to the natural environment of our home, mother earth. In 2002 I went to Zambia as a volunteer Community Developer and I have been involved with Zambian communities ever since. My chosen profession in forestry and my passion is to prevent the total destruction of the natural environment of Zambia and the world. This has led me to compile a book on Zambian trees in over 200 pages of photos and descriptions. I have been very busy freely giving copies to anyone who asks for one, with a pledge they will not replicate the book in any way. Hard copies are very expensive to produce thus a high selling price. Hard copies are available from the author at a price. Through me and by donor support the goal is to give a free hard copy to every school in Zambia and this is now under way. Recipients of this free book are asked to get involved in planting trees and to help schools in their community receive a hard copy of my book.



I would be very happy to answer any questions you may have. If you don't have a copy I can send you one or one to your friends, family or colleagues or sell you a hard copy. zambiantrees@gmail.com And I am always looking for donors to give support so all the schools in Zambia get a hard copy of the book for their reference library.

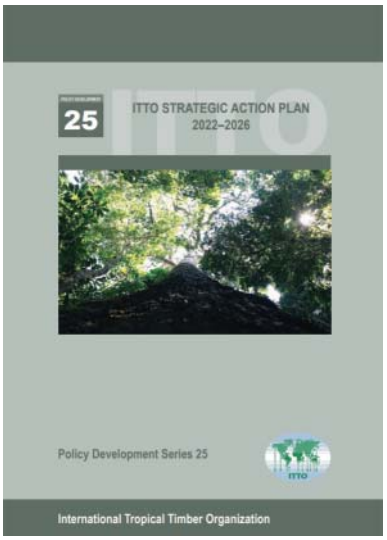
My best regards
Garry Brooks
africancommunityproject@gmail.com

ITTO Strategic Action Plan 2022–2026

ITTO

ITTO's work over the next five years will focus on four key areas – (1) governance and investment; (2) economies and tropical timber trade; (3) resilience, restoration and conservation; and (4) statistics and information. These strategic priorities are set out in the Organization's Strategic Action Plan 2022–2026, which was published today.

ITTO is a treaty-based international organization headquartered in Yokohama, Japan. Operating under the International Tropical Timber Agreement, 2006, the Organization is the only intergovernmental organization dedicated exclusively to the sustainable management of tropical forests and the sustainable and legal trade of tropical timber and forest products.



The ITTO Strategic Action Plan 2022–2026 was adopted by the International Tropical Timber Council at its 57th Session in December 2021. In addition to the four strategic priorities, the plan includes four crosscutting strategies and 38 associated targets to be accomplished or achieved by 2026.

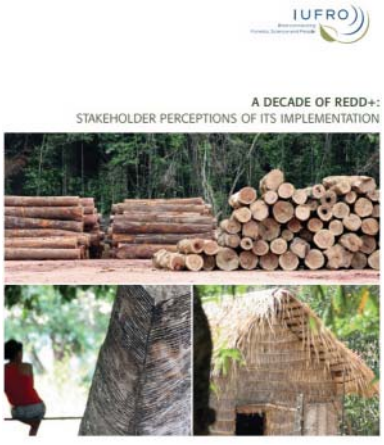
Download the report at www.itto.int/council_committees/action_plans/

A Decade of REDD+: Stakeholder Perceptions of its Implementation

Editors: Nelson Grima and Christoph Wildburger

IUFRO

To date, evidence indicates that the impacts of REDD+ interventions on biodiversity, as well as on livelihoods and other economic and social outcomes, are uneven and often highly context dependent. This is one of the findings of the report "Forest, Climate, Biodiversity and People: Assessing a Decade of REDD+" published by IUFRO's Global Forest Expert Panels (GFEP) Programme earlier this year.



Back-to-back with the report, GFEP has conducted extensive stakeholder consultations in Asia and Latin America to identify factors that would need to be improved for better carbon and non-carbon outcomes of local REDD+ activities. The new publication "A Decade of REDD+: Stakeholder Perceptions of its Implementation" synthesizes the responses and comments from the nearly 200 stakeholders who were interviewed on REDD+ implementation on the ground.

The author Dr. Nelson Grima, GFEP Manager, explains, "We cooperated with local experts who talked with stakeholders of a wide range of backgrounds, from Indigenous

Peoples to academics and policy makers. Based on semi-structured interviews, the stakeholders provided their views on the impacts of REDD+ implementation and potential ways to improve it further. Interestingly, despite the intrinsic differences between the regions covered – Asia and Latin America – the factors that need to be improved according to the interviewees are similar and include social, economic, environmental, governance, and technical aspects."

Regarding the GFEP report, stakeholders see a huge potential for the use of this assessment to guide public policies. Nevertheless, they also point out that this potential is conditioned to the will of national governments to work towards improving the forest sector and its associated socioeconomic impacts.

Read the publication: bfmr-followup-stakeholder-publication.pdf (iufro.org)

For hardcopies, please write to: office(at)iufro.org

Protecting the Amazon forest and reducing global warming via agricultural intensification

Fabio R. Marin, Alencar J. Zanon, Juan P. Monzon, José F. Andrade, Evandro H. F. M. Silva, Gean L. Richter, Luis A. S. Antolin, Bruna S. M. R. Ribeiro, Giovana G. Ribas, Rafael Battisti, Alexandre B. Heinemann & Patricio Grassini

Nature Sustainability

Abstract

The Amazon basin includes 550 Mha covered with rainforests, and 60% of this area is in Brazil. The conversion of rainforest for soybean production raises concerns about how Brazil can reconcile production and environmental goals. Here we investigated the degree to which intensification could help Brazil produce more soybean without further encroachment on the Amazon forest. Our analysis shows that the continuation of current trends in soybean yield and area would lead to the conversion of an additional 5.7 Mha of forests and savannahs during the next 15 years, with an associated 1,955 Mt of CO_2e released into the atmosphere. In contrast, the acceleration of yield improvement, coupled with the expansion of soybean area only in areas currently used for livestock production, would allow Brazil to produce 162 Mt of soybean without deforestation and with 58% lower global climate warming relative to that derived from the continuation of current trends.

Download at: www.nature.com/articles/s41893-022-00968-8

Around the World

USA: new research reveals how critical forests are to drinking water supply

Access to high-quality water will be a defining feature of the 21st century. Record heat waves and drought are not only leading to more frequent and intense wildfires but are also putting one of life's most valuable resources at risk: the water we drink.

A new Forest Service research report describes how extensively public drinking water systems rely on national forests and grasslands.

Water use per person has been declining for decades; however, a variety of factors such as population growth, food production and ecosystem conditions under a changing climate are contributing to overall greater demand for water – especially in certain parts of the country.

In the West, national forests and grasslands supply drinking water to almost 90% of the people served by public water systems. Some western cities, like Aspen, Colorado, and Portland, Oregon, are more than 90% dependent on national forests alone for their drinking water. The story is similar in the eastern U.S., though most of this water is supplied by private forests.

Still, more than a century of research has demonstrated that forested lands provide the cleanest and most stable water supply compared to other lands. Within the lower 48 states, more than 99% of people who rely on public drinking water receive some from forested lands.

This report is the first of its kind to measure how individual national forests and grasslands contribute to surface drinking water supplies while accounting for networks of pipelines and canals that divert water from the source to areas of high need, also known as "inter-basin water transfers."

These inter-basin transfers are incredibly important sources of drinking water, especially in the West, where cities like Los Angeles receive more than two-thirds of their water from forested lands in California and Colorado.

By showing where our drinking water comes from at a fine scale, this report supports USDA's Wildfire Crisis Strategy, and work supported by the Bipartisan Infrastructure Law and the Inflation Reduction Act. It helps land managers prioritize forests and watersheds for hazardous fuels reduction, watershed management, and restoration treatments that protect people, communities and resources across the country.

usda.gov

Global: How to preserve forest biodiversity without losing livelihoods

Loss of forest biodiversity can be stopped without disrupting livelihoods – if actions are taken to halt and reverse deforestation, combat illegal and unregulated forest activities and prevent the conversion of natural forests into forest plantations, say experts.

Speakers during the 26th Session of the Committee on Forestry (COFO26) also called on concerted efforts to recognize forest tenure rights of Indigenous Peoples and local communities as an effective strategy to combat illegal forest activities, especially where local communities are the de facto forest managers.

The Food and Agriculture Organization (FAO) and the Center for International Forestry Research (CIFOR), released a comprehensive study on biodiversity mainstreaming in forestry, providing an assessment of good practices and solutions that balance conservation and the sustainable use of forest biodiversity.

"We have increasing demand for wood, and the balance between meeting this demand while maintaining forests – which harbour most of the Earth's terrestrial biodiversity – is critical," said Robert Nasi, Director General of CIFOR. "This is possible with a proper legal environment, as well as the involvement of the indigenous communities who draw their livelihoods from the forests.

He underlined the importance of biodiversity in non protected forests and showed that "Well-managed forests can support biodiversity while generating income".

The study launched at the sidelines of the COFO 26 titled 'Mainstreaming biodiversity in forestry," was initiated at the occasion of the Global Landscapes Forum (GLF) Biodiversity Digital Conference: One World – One Health held on 28 October 2020, thanks to the concerted efforts of the CGIAR Research program on Forests, Trees and Agroforestry (FTA) and FAO. It explores the process of embedding – or "mainstreaming" – biodiversity considerations into policies, strategies and practices of key public and private actors to promote conservation and sustainable use of natural resources.

CIFOR-ICRAF Director of Platforms and Programs formerly Director of FTA Vincent Gitz said that generating and sharing knowledge on forest biodiversity is critical in addressing the threats to biodiversity.

"Mainstreaming biodiversity in forest management requires more knowledge on the base line for management, including how to measure impacts. All forest users need awareness on the importance of biodiversity, the impact of what they are doing on biodiversity in a simple way, and the care and knowing what they can do to preserve forest biodiversity," Mr Gitz said.

The study confirms that deforestation is the single most important driver of forest biodiversity loss, with approximately 10 million hectares of forest cleared for other land uses every year, mainly for conversion to agriculture.

The study also examined other threats to forests and biodiversity, such as disturbances that do not necessarily result in deforestation, but which nevertheless have devastating impacts on the health and vitality of forests – and subsequently their ability to provide a full range of goods and ecosystem services.

"For example, in 2015, insects, diseases and severe weather events damaged about 40 million hectares of forests. Another 98 million hectares were affected by fire in 2015, primarily in the tropics," the study cites.

Complicated and poorly harmonized systems of laws and regulations, especially those with unclear and conflicting institutional roles, can contribute to the prevalence of illegal activities, among other issues. High levels of corruption and weak law enforcement have also increased illegal use of forest and disrupted biodiversity.

Prioritizing forest policies, plans, programmes, projects and investments that have a positive impact on biodiversity at the ecosystem, species and genetic levels, as well as how to integrate biodiversity concerns into everyday forest management and practices, was one of the key focus of the study.

Case studies were conducted in eight countries: the Democratic Republic of the Congo, Ethiopia, Finland, Japan, Malaysia, Mexico, Peru and the United Kingdom. They allowed to identify success factors and assess progress made on mainstreaming biodiversity in the forest sector in a variety of national contexts.

FAO Senior Forestry Officer Thomas Hofer said the rate at which forests were being destroyed calls for a balance between conservation goals and the satisfaction of human needs.

"We hope that the wealth of information and recommendations provided in this study will inspire actions from those involved in forest management and conservation. The launch of this publication is the beginning, not the end, of forest biodiversity management," Dr Hofer said during the launch.

forestnews.cifor.org

Guinea: Engaging the forestry, agriculture and mining sectors to adopt sustainable practices in the Republic of Guinea

Unsustainable wood exploitation, traditional slash and burn agriculture practices and mining activities are accelerating biodiversity loss in the Republic of Guinea, according to a study examining the country's economic sectors with the largest impact on the environment.

To explore solutions, some 50 stakeholders participated in a **two-day workshop in October in Kindia**, where they discussed possible sectoral commitments for biodiversity conservation as well as strategies for mobilising stakeholders in the forestry, agriculture and mining sectors.

Organised by the **BIODEV2030** project, the workshop was praised by Cyril Aboly, a representative of the Ministry of Environment and Sustainable Development, for bringing stakeholders from the public and private sectors and civil society to the table to encourage them to contribute to solutions and make concrete commitments to halt biodiversity loss.

Understanding the national threats to biodiversity

BIODEV2030 was launched in the Republic of Guinea in 2021. The project first undertook an "**assessment and prioritisation of threats to biodiversity at national and local levels in Guinea**" led by Professor Alpha Issaga Pallé Diallo and a team of CERE researchers. The study provided an in-depth analysis of the threats and economic sectors that most affect biodiversity.

Based on the results of the assessment, the stakeholders identified agriculture (in particular rice growing and fruit and vegetable farming), forest exploitation (lumber and charcoal), and mining (bauxite and gold mining), as priority sectors to mobilise.

Identifying sectoral drivers of biodiversity loss and possible ways forward

The recent workshop was an opportunity for the stakeholders to take stock of the diagnosis of the prioritised sub-sectors, and discuss the opportunities, challenges and possible action plans. Each sub-sector was studied in representative regions of the country: the bauxite and charcoal sub-sectors were studied in Lower Guinea, fruit and vegetable crops in Middle Guinea, timber and rice in Forest Guinea, and gold panning in Upper Guinea.

"*Our country is rich in soil and subsoil resources, in arable land with favourable rainfall for agriculture, the exploitation of which could significantly improve the lives of the population if it were carried out without impacting biodiversity,*" said Bangaly Chérif, a representative of the President of the Guinean National Transitional Council (CNT) and the President of the CNT Commission in charge of economic affairs and sustainable development.

However, traditional agricultural practices, mining activities, unsustainable wood cutting, bush fires and other unsustainable methods of land use interact to accelerate the degradation of water, land and the environment. It is therefore essential to mobilize stakeholders to discuss and find sustainable solutions and upscale best practices that reconcile economic development and biodiversity conservation.

The Ministry of Environment and Sustainable Development encourages and "supports all the projects that allow the Republic of Guinea to honour its commitment made under the various United Nations framework conventions," noted Mr Aboly. Therefore, the BIODEV2030 project is officially listed among the actors, technical and financial partners supporting the environment sector in Guinea, such as **Biotope** and Guinée Ecologie involved in **COMBO+** – also funded by the **Agence Française de Développement**.

Next steps

In the coming weeks, prior to the Convention of Biological Diversity COP15 in Montreal in December, sectoral dialogues will be organised with stakeholders involved in the fruit and vegetable farming, charcoal and gold mining sub-sectors. The objective will be to develop common action plans for a sustainable pathway.

The BIODEV2030 project is financed by the Agence Française de Développement (AFD), coordinated by Expertise France and implemented by IUCN and WWF in 8 countries each.

iucn.org

Europe: Scientists call for 'climate smart' forestry in face of global warming

Over 550 scientists have signed a letter to the European Commission, alerting them of the deteriorating state of European forests and calling for climate-smart forestry practices – including wood harvesting for bioenergy – to bolster their resilience to global warming.

European forests are under growing pressure from rising temperatures, which cause more wildfires, pests and diseases that threaten their ability to store carbon dioxide and safeguard biodiversity.

"Hot and dry weather in many parts of Europe and the world makes us worry about the future of our forests," says the letter, addressed to the presidents of the three main EU institutions – the European Commission, the European Council and the European Parliament.

The letter, calls for "climate-smart forest management" to bolster European forests' resilience and capacity to produce wood and grow carbon simultaneously.

"If dry years become more frequent, we expect that forest biomass will decrease rather than increase in the next decade irrespective of management and protection," they warn.

Environmental groups say an easy win is to restrict the amount of woody biomass used in energy production, advice that the European Parliament broadly took on board.

In September, lawmakers voted in favour of plans to end subsidies for biomass burned in power plants and to exclude most primary wood burning from the EU's renewable energy targets.

EU bioenergy rules in focus

Bioenergy has been criticised by environmental groups who say burning wood drives deforestation, destroys natural habitats, and undermines forests acting as carbon sinks in the fight against climate change.

But the letter from the 550+ scientists disputes those claims, saying that continued forest maintenance – not blanket protection – is crucial to ensure forests continue providing so-called ecosystem services.

"Wood from sustainably managed forests is CO2-neutral, concerning the ecosystem processes," the letter points out, saying selected harvesting removes competition between individual

trees and enables forests to recover more quickly from losses caused by natural disasters.

"Without harvesting, the forest volumes will saturate. The carbon sink will approach zero, as it is visible in the old-growth areas in Ukraine's pristine forests," the scientists write.

From that perspective, the economic exploitation of forest-based wood products should be seen as an inherent part of sustainable forestry practices, including the burning of biomass for electricity generation, they argue.

"With proper forest management, the use of wood for energy is a co-product of harvest and the processing of wood for products," the scientists write, saying there are sufficient volumes of by-products such as tree tops, residues and recycled wood available to secure renewable energy supply.

"Banning the use of wood for energy from sustainably managed forests and increasing the share of EU forests under protection is not suitable to support Europe's climate protection policy, has no further benefits for biodiversity and hinders circular bioeconomy," the letter says.

Those arguments were refuted as "pro-biomass industry propaganda" by Alex Mason from the WWF's EU office.

Instead, Mason pointed to another letter from 2018 signed by multiple IPCC lead authors and other leading scientists, who urged EU policymakers to drastically limit forest biomass used for energy.

"We urge European legislators … to restrict eligible forest biomass to appropriately defined residues and wastes because the fates of much of the world's forests and the climate are literally at stake," they wrote.

According to the European Commission, almost 60% of the EU's total renewable energy consumption currently comes from biomass, with three-quarters going to heating.

Global: Give legal rights to animals, trees and rivers, say experts

Granting legal rights and protections to non-human entities such as animals, trees and rivers is essential if countries are to tackle climate breakdown and biodiversity loss, experts have said.

The authors of a report titled Law in the Emerging Bio Age say legal frameworks have a key part to play in governing human interactions with the environment and biotechnology.

Ecuador and Bolivia have already enshrined rights for the natural world, while there is a campaign to make ecocide a prosecutable offence at the international criminal court. The report for the Law Society, the professional body for solicitors in England and Wales, explores how the relationship between humans and mother earth might be recalibrated in the future.

Dr Wendy Schultz, a futurist and report co-author, said: "There is a growing understanding that something very different has to be done if our children are going to have a planet to live on that is in any way pleasant, much less survivable, so this is an expanding trend. Is it happening as fast as any of us would want? Possibly not, which is why it's important to get the word out."

Her co-author, Dr Trish O'Flynn, an interdisciplinary researcher who was previously the national lead for civil contingencies at the Local Government Association, said legal frameworks should be "fit for a more than human future" and developments such as genetic modification or engineering. This means covering everything from labradors to lab-grown brain tissue, rivers to robots.

"We sometimes see ourselves as outside nature, that nature is something that we can manipulate," said O'Flynn. "But actually we are of nature, we are in nature, we are just another species. We happen to be at the top of the evolutionary tree in some ways, if you look at it in that linear kind of way, but actually the global ecosystem is much more powerful than we are. And I think that's beginning to come through in the way that we think about it.

"An example of a right might be evolutionary development, where a species and individual … is allowed to reach its full cognitive, emotional, social potential."

Such a right could apply to sows in intensive pig farming, calves taken away from their mothers and even pets, said O'Flynn, adding: "I say that as a dog lover. We do constrain their behaviour to suit us."

Developments in biotechnology also pose questions about the ethics of bringing back species from extinction or eradicating existing ones. Scientists are exploring reintroducing woolly mammoths and there has been discussion of wiping out mosquitoes, which carry malaria and other diseases.

"We aren't wise enough to manage all of these capabilities and to manage the ripple effects of decisions we make about our relationship with the living environment," said Schultz. "Part of the issue is embedding some sort of framework for accountability and responsibility for the consequences of these things we do, and that's where law comes in."

The authors acknowledge potential resistance from very different traditions and beliefs in some western countries, compared with Ecuador and Bolivia, where rights to nature were granted under socialist governments and influenced by Indigenous beliefs (as was the 2019 ban on climbing Uluru in Australia).

"Granting something that is culturally numinous rights just so you can preserve it gets us to a kind of valuation that, among other things, is a cultural shift away from the Judeo-Christian great chain of being – dominion over nature," said Schultz. "This is reconfiguring it to place us where we have always been and where we should be thinking of ourselves as belonging, as just a node in this greater web of life on the planet."

"If that worldview can be enshrined in law, essentially granting personhood rights to the spirit of the river, the spirit of the trees or the spirit of the elephant, you're talking about enshrining a kind of neo-pantheism into 21st-century legal frameworks."

theguardian.com

Africa: Norfund, BII, Finnfund invest $200m in African forestry fund

The Norwegian, British and Finnish development finance arms have put $200 million into an African forestry fund, the organisations said on Wednesday, as part of a plan to invest in sustainable tree businesses in the region.

Norfund has put $76 million, British International Investment (BII) $75 million and Finnfund $48 million into the African Forestry Impact Platform (AFIP), a fund run by Sydney-based forest investor New Forests.

The investment follows a pledge by the three development finance institutions to scale up Sub-Saharan Africa's sustainable forestry sector made at last year's COP26 climate change conference, as policymakers gear up for this year's COP27 in Cairo next month.

Deforestation from the forest, land and agricultural industries contributes about 11% of annual global greenhouse gas emissions, according to the Intergovernmental Panel on Climate Change. Getting companies in these sectors to curb emissions is seen as crucial to limiting climate change.

New Forests, which said in May it was being acquired jointly by the Japanese companies Mitsui and Nomura, said it plans to raise a further $300 million for the African forestry fund in the next two to three years to invest in other plantation owners and related companies.

Its fund is also making its first acquisition, Green Resources, a forestry and wood processing company with 38,000 hectares of pine and eucalyptus plantations in Tanzania, Uganda and Mozambique, New Forests said in a statement.

The purchase, for an undisclosed amount, is subject to approval by Tanzanian regulators and expected to be completed by December, the statement said.

reuters.com

Europe: The heat and drought in Europe will lead to a huge wave of tree deaths

The severe heat and drought in Europe this summer will lead to a massive wave of tree deaths over the next two or three years even if there is enough rainfall to bring the drought to an end, experts are warning.

"Not only next year, but also in the following two to three years we will see a cascade of tree mortality," says Jan-Peter George at Tartu Observatory in Estonia.

Numerous studies around the world are showing that the extreme heat and droughts caused by global warming are killing off ever more trees, from tropical rainforests to boreal forests in the far north. Last year, for instance, George's team reported that the drying out of soils in Europe is increasing tree death rates across the continent.

His study, like others, found that these deaths typically occur a year or more after a drought, rather than at the time. In other words, many trees that at present appear to have survived the drought and widespread wildfires could still end up dying.

The last drought in Europe in 2018 led to the biggest wave of tree deaths for perhaps 170 years, Cornelius Senf and Rupert Seidl at the Technical University of Munich, Germany, reported last year. "We thus expect that this year and next, tree mortality will be high," says Senf.

It is too soon to tell whether even more trees will die this time, says Seidl. "What made the 2018 event so detrimental was that it in fact was a three-year drought in many places," he says. "For the 2022 drought, we'll have to see how the next months and years will play out."

A 2021 study of tree rings from living and preserved trees found that the series of droughts in Europe since 2015 is unprecedented in at least the past 2110 years. "There is no recovery time any more between droughts," says George.

There are several interlinked reasons why droughts can lead to trees dying a year or more later. They can starve and the tissues that transport water can be permanently damaged. Trees weakened by droughts are also much more vulnerable to pests and diseases, such as bark beetles and fungi.

Warmer conditions are also adding to the stress on trees in another way, by allowing pests such as the horse chestnut leaf miner to start attacking them earlier and thus to do more damage. "A lot of insect pests appeared sooner this year," says Leigh Hunt at the Royal Horticultural Society in the UK.

Trees have a vital role, says Hunt. They not only help reduce global warming by soaking up carbon, they can also help limit the effects of warming by cooling cities and reducing flooding, he says.

Trees that die shouldn't simply be replaced with the same species, says Hunt. Now is the time to start adapting to the future by planting more resilient species, he says, ones that are able to cope with all kinds of weather extremes, not just droughts.

Europe is far from the only place where drought is killing trees. In the US, power companies are warning that drought-stressed trees could fall in high winds and take down power lines. Such an event is said to have caused a fire that killed two people and destroyed 200 homes in New Mexico earlier this year.

newscientist.com

Global: COP27 countries band together to keep forest promise

More than 25 countries at the COP27 climate talks on Monday launched a group they said would ensure they hold each other accountable for a pledge to end deforestation by 2030 and announced billions of dollars to finance their efforts.

The first meeting of the Forest and Climate Leaders' Partnership, chaired by Ghana and the United States, takes place a year after more than 140 leaders promised at COP26 in Britain to end deforestation by the end of the decade.

Progress since has been patchy, with only a few countries instituting more aggressive policies on deforestation and financing.

The new group – which includes Japan, Pakistan, the Republic of Congo, the United Kingdom and others – accounts for roughly 35% of the world's forests and aims to meet twice a year to track progress.

Notable omissions from the group are Brazil with its Amazon rainforest and the Democratic Republic of Congo whose vast forests are home to endangered wildlife including gorillas.

"This partnership is a critical next step to collectively deliver on this promise and help keep the goal of limiting global warming to 1.5C alive," Britain's Alok Sharma, who presided over last year's COP talks, said in a statement.

The statements said that around 22% of the $12 billion in public money pledged for forests by 2025, funds committed in Glasgow, had so far been disbursed.

Among the new sources of financing, Germany said it would double its financing for forests to 2 billion euros ($1.97 billion) through 2025.

President Gustavo Petro of Colombia, also a member of the group, told the summit that the country would spend $200 million annually for the next 20 years to save the Amazon rainforest, calling on other countries to contribute.

PRIVATE CASH PILES UP

Private companies announced $3.6 billion in extra money. They include investment firm SouthBridge Group, creating a $2 billion fund for restoration efforts in Africa, the region with the most tropical rainforest after South America.

Volkswagen Group (VOWG_p.DE) and H&M Group signed up to a separate initiative, The LEAF Coalition, launched at COP26, in which governments and companies pay countries with tropical and subtropical forests for emissions reductions.

Ecuador also becomes the first country to sign a memorandum of agreement with Emergent, coordinator of the coalition, that aims to see a binding Emissions Reduction Payment Agreement signed by the end of April 2023.

South Korea also agreed to be the first Asian government to provide finance for the coalition, joining founders Britain, Norway and the United States.

"The need is urgent – for the climate, for biodiversity and the people that depend on forests," Emergent Chief Executive Eron Bloomgarden said.

Other initiatives towards meeting the 2030 forest pledge also announced incremental progress at the opening of COP27.

A coalition of 25 governments and charities said that 19% of $1.7 billion promised to indigenous communities to promote land rights and forest protection had been paid out.

But despite a promise to pay most of the money directly to local communities, roughly half of the funds were routed through international nongovernmental organisations. Only 7% of went to community-led groups, which the coalition said needs to be corrected.

"There should be nothing for us without us," said Basiru Isa, regional secretary general for Central African indigenous organization REPALEAC, commenting on the matter.

A separate initiative by investors to push companies to eliminate deforestation by 2025 said that Swiss asset manager GAM Investments, UK pension manager London CIV, SouthBridge and Banco Estado de Chile had all joined the alliance.

In September, the initiative announced standards that companies should follow to trace commodities and disclose links to deforestation.

reuters.com