FORESTS NEWS

DG'S COLUMN

Five (or six) solutions for saving the world's forests and restoring landscapes

Working together for maximum impact


ROBERT NASI
@forestsmatter


TONY SIMONS
Director General of the Center for International Forestry Research (CIFOR)

Previous Article

Next Article

Friday, 20 Mar 2020

Tony Simons (L) and Robert Nasi at the Global Landscapes Forum Bonn 2019 closing plenary in Bonn, Germany. GLF/Pilar Valbuena

We’ve heard a lot about ambitious tree planting initiatives in recent months. Laudable as these may be – and we offer congratulations and celebrate the community-minded impetus behind them – we need a lot more than tree planting to restore degraded landscapes and to save the world’s forests.

On International Day of Forests, we join with the United Nations to draw attention to the urgent need for general recognition of the key role these treed landscapes play in combating climate change and achieving the Sustainable Development Goals (SDGs), targets aimed at alleviating poverty.

We celebrate all forested biomes, whether they are enmeshed in effective agricultural systems, natural peatlands, dry forests and mangroves. "Forgotten" forests that deserve more attention include tropical montane cloud, karst and keranga forests.

We urge the international community to implement robust, systemic changes required to address the dramatic consequences of deforestation and forest degradation, to conserve intact forests, sustainably manage secondary, disturbed or overlogged forests, increase trees on farms, while restoring degraded lands for both global goods and local livelihoods.

The high-level frameworks and targets exist. Through the SDGs, the New York Declaration on Forests (NYDF), the U.N. Paris Agreement and the Convention on Biological Diversity we have all we need to deploy transformations and succeed. Hopes are now weighted heavily on the U.N. Decade on Ecosystem Restoration (2021-2030). Will it provide the structure within which governments, businesses and people will act in a united effort to offset global warming before it is too late?

Previous Article

Next Article

Read also **Sustainable financing for forest and landscape restoration**

But we must not forget those people who are closest to forests. We must deepen our dialogue with the communities who live, work and rely on forests.

Not only are forests the most biologically-diverse land-based ecosystems, but they are home to more than 80 percent of terrestrial species of animals, plants and insects and store vast quantities of carbon.

Consider this: these critical ecosystems containing half the planet's species of plants and animals provide livelihoods for 1.6 billion people – including more than 2,000 Indigenous cultures – who rely on forests for medicine, fuel, food and shelter.

Although the financial values attributed to land degradation, forest restoration and other data are projections and estimates, we know that the orders of magnitude are valid.

Deforestation, land degradation and depletion of natural capital are common across the world, and estimated to cost $6.3 trillion in lost ecosystem services annually. That is a value roughly 10 percent of the global economy.

Read also **Assessment Report on Land Degradation and Restoration**

When packaged together as the "land-use sector," agroforestry systems provide more than 95 percent of all human food, generate employment for over half of all adults and account for 30 percent of all greenhouse-gas emissions.

‹ Previous Article

And trees in forests or on farms are at the very heart of nature-based solutions for the climate emergency.

› Next Article

Research by CIFOR-ICRAF and others has shown that not only do trees in forests and fields sequester large amounts of carbon but they also provide food and material for farmers and foresters, renew the fertility of soils and their stability, protect watersheds for downstream consumers, and that they are the critical player in our planet's water cycle.

And now, as we confront a climate emergency, the global community urgently needs to make better efforts to reconnect human prosperity and ecosystem resilience to forests and agriculture.

So how do we get there?

The world needs transformative scientific, development, business and financial partnerships to undertake the large-scale transformations needed and achieve the global targets so onerously worked out over the years.

Read also **Atlas of Forest and Landscape Restoration Opportunities**

There are five areas where investment can be made to rejuvenate the functions of degraded ecosystems. These will help protect, expand and value forests and their biodiversity, transform agriculture into perennial systems, and build sustainable value chains, with the combined support of governments and the private sector to make the transition to sustainable economies.

First, financing the transition requires a firm commitment from the global community. We have no shortage of money. Estimates indicate that governments spend $1.8 trillion a year in military expenditures and more than $5 trillion in fossil fuel subsidies, but only about $50 billion on landscape restoration.

We need to realign our priorities.

Previous Article

Next Article

The investment needed to reverse land degradation around the world to meet the target of the NYDF is $830 billion, according to the U.N. Food and Agriculture Organization. Restoring 350 million hectares as part of the Bonn Challenge — a commitment made during U.N. Climate talks in 2014 as part of the NYDF – is estimated at $360 billion.

Read also **Restoration: It's about more than just trees**

More must be done to catalyze funds.

As highlighted by participants in November at the Global Landscapes Forum in Luxembourg, triggering investment requires broadening the definition of "wealth" to include natural and social assets, significant collaboration between the public and private sectors and a systematic change in global supply chains and financial systems.

Second, agriculture must be more strongly connected to climate solutions. The agriculture, forestry and other land use sectors are responsible for just under a quarter of human-generated greenhouse gas emissions, mainly caused by deforestation and such agricultural sources as livestock, soil and nutrient management.

Yet, agroforestry, if defined by tree cover of greater than 10 percent on agricultural land, is widespread: found on more than 43 percent of all agricultural land globally, where 30 percent of rural populations live, representing over 1 billion hectares of land and up to 1.5 billion people.

It must be expanded in both area and diversity of species to help countries meet nationally determined contributions – targets under the U.N. Paris Agreement on climate change aimed at reducing global warming – improve livelihoods, enhance food security and perennialize agriculture, taking the pressure off natural forests.

Third, mangroves and peatlands are vital carbon sinks.

‹ Previous Article

Mangrove ecosystems are recognized for their ability to store large amounts of carbon and protect shorelines from erosion caused by ocean activity. They also provide a buffer by capturing sediment high in organic carbon, which can accumulate in tandem with sea level rise, according to research findings by CIFOR scientists.

› Next Article

Read also **Participatory monitoring to connect local and global priorities for forest restoration**

Like mangroves, peatlands have a massive role to play in mitigating the impact of climate change, but they are under major threat in many countries in both the Global North and the South.

For example, in the Congo Basin concessions are up for sale and the threat of drainage is real. Peatlands make up more than half of all wetlands worldwide and they are equivalent to 3 percent of total land and freshwater surfaces.

Built up over thousands of years from decayed, waterlogged vegetation debris, Wetlands International reports that 15 percent of peatlands have been drained for agriculture, commercial forestry and to extract fuel.

When they are drained, they oxidize and carbon is released into the atmosphere, causing global warming.

A third of the world's soil carbon and 10 percent of global freshwater resources worldwide are stored in peatlands, according to the International Mire Conservation Group and the International Peat Society.

Any program to fix forests and landscapes must ensure peatlands are protected, rewetted and restored.

Fourth, restoring landscapes can bring impressive benefits, by some measures up to $30 for every dollar invested, but restoration investments have so far been slim.

Important steps toward this transformative investment include collaboration between private and public funders, reducing risk and uncertainty for investors, developing better measures of landscape health and building an inventory of technologies, methods and knowledge that can be expanded in scale.

‹ Previous Article

Next Article ›

Fifth, biological diversity is fundamental to the existence of life on Earth. To choose the most obvious example, food crops are plants that rely on pollinators to flower and fruit. The value of these crops is almost $600 billion annually.

The vast majority of pollinators are wild, including 20,000 species of bees, and reliant on intact, diverse and healthy ecosystems. Insects are likely to make up the majority of future biodiversity loss: up to 40 percent of all invertebrate species face extinction.

Integrating a greater amount and number of trees, shrubs and other species into farms will provide habitat, pollinators, natural predators and sources of food and incomes.

And so?

We know the solutions needed to save Earth's forests implement land restoration and we increasingly understand the implications of failure. Tree planting has inspired many to take action to protect and rehabilitate our forests. What is needed now is the financial commitment to make it happen, and happen fast.

We recall the teachings of Elinor Ostrom (1933-2012), who won the Nobel Prize in Economic Sciences in 2009, which she shared with Oliver Williamson, "for her analysis of economic governance, especially the commons."

Through her research into how commonly held lands are managed, she overturned traditional colonial-dominant perspectives. She taught us that people can work together to sustainably and effectively shape natural resource use, as long as ground rules and parameters are clear, and those who work on the land are involved. She recognized that rules should not be imposed without consultation from above by governments or other formal entities to achieve the highest level of successful land management.

‹ Previous Article

She delivered the formula for success. We must ensure we live up to it by melding high-level policies with tactics deployed by sustainable land managers — the people who live and work in forests. We must continually work across sectors to achieve comprehensive results.

Next Article ›

Listen to Ostrom: "Until a theoretical explanation — based on human choice — for self-organized and self-governed enterprises is fully developed and accepted, major policy decisions will continue to be undertaken with a presumption that individuals cannot organize themselves and always need to be organized by external authorities."

This research forms part of the CGIAR Research Program on Forests, Trees and Agroforestry, which is supported by CGIAR Fund Donors.