ENDING DEFORESTATION

AN OPPORTUNITY TO ADVANCE **HUMAN AND PLANETARY HEALTH**

Executive Briefing

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HUMAN AND PLANETARY HEALTH

Deforestation is fueling the climate emergency and loss of biodiversity as well as increasing the risk of infectious diseases. The causes are complex and action to tackle it must take place at every level. While national and international organizations have a key role, the private sector can also make a significant contribution.

AN URGENT CHALLENGE WITH COMPLEX CAUSES

FORESTS are a vital cog in Earth's life-support system. They supply us with oxygen, water, food and materials while storing vast amounts of carbon and harboring most of the planet's precious biodiversity. The catastrophic loss, fragmentation and degradation of forests is destabilizing the climate, threatening lives and livelihoods, and risks the mass extinction of plants and animals. It is also heightening our exposure to infectious diseases, including new viruses that can jump from wild animals to humans. Governments and businesses have set ambitious targets to curb deforestation, but they are not yet taking action on the scale we need. Protecting forests and the critical benefits they provide means keeping more native forests safe from overexploitation, improving crops to reduce demand for agricultural land and making sure all actors, including companies and consumers, understand and take responsibility for the impact of their activities on forests and other threatened ecosystems.

HOW OUR FOREST WEALTH BECAME A GLOBAL RISK

People have been cutting trees for millennia – for fuel and timber, and to make space for farmland, settlements and infrastructure. But recently deforestation has accelerated to meet the demands of our bigger and wealthier global population, causing a risk for the climatic and ecological stability of the planet, as well as for global health. Forests now cover about 4 billion hectares, or 38 percent, of Earth's habitable land. That's down by one-third since pre-agricultural times. Half of the forest loss – 1 billion hectares, equivalent to the area of the United States – has occurred in the last century alone, as much as in the whole of the previous 9,000 years.¹

Many countries and industries had pledged to halt deforestation by 2020. But it continues apace, with about 10 million hectares converted to farmland and other human uses

In numbers

38%

or about 4 billion hectares of Earth's habitable land is covered by forests.

1/8

of man-made greenhouse gas emissions results from deforestation and forest degradation.



of the world's forest has been converted to farmland and other human uses since 1990, an area half the size of Brazil.



is suffering degradation from factors including fire, storms, disease, and invasive pests.

every year. Most deforestation is taking place in primary tropical forest, which holds vast and vital stores of carbon and biodiversity. Some 420 million hectares – an area half the size of Brazil – has been cleared since 1990. In addition, more than 100 million hectares of forest is suffering degradation from factors including fire, storms, disease, and invasive pests, as well as human exploitation² – threats that are expected to grow along with climate change.

SUFFERING THE CONSEQUENCES: WARMING, EXTINCTION AND DISEASE

Deforestation and forest degradation are responsible for about one-eighth of manmade greenhouse gas emissions, making forest loss the second-biggest driver of the climate emergency after the burning of fossil fuels.³ At the same time, forest loss is eroding the critical role of land in absorbing and storing part of the carbon dioxide we are pumping into the atmosphere.

As well as regulating climate, forests support much of the world's land biodiversity, including 80 percent of amphibians, 75 percent of birds and 68 percent of mammals.⁴ But an index of forest-specialist species shows a decline of more than 50 percent between 1970 and 2014⁵, and many scientists fear that the loss of tropical forests is driving the world towards a mass extinction event.⁶ About 1 million species are projected to vanish, many within decades, unless action is taken to reduce deforestation and other drivers of biodiversity loss.⁷

The Covid-19 pandemic has focused attention on how the erosion of natural ecosystems is linked to outbreaks of zoonotic and vector-borne diseases, including Ebola, malaria, dengue and chikungunya.[®] Deforestation and forest degradation, for instance, can result in more contacts among people, livestock and wildlife, increasing the risk of disease spilling over into human populations.[®] The threat is considered highest in deforestation hotspots in the tropics. Intact and healthy forests, on the other hand, can provide a buffer against the emergence of diseases.¹⁰

"Forest solutions are both a shield against the emergence of new pathogens and a key tool for socioeconomic recovery," said Mario Boccucci, head of the UN's programme to reduce emissions from deforestation and forest degradation (UN-REDD). "We need forests now more than ever, especially in this time of crisis."

DRIVERS OF FOREST LOSS: RISING LIVING STANDARDS AND GLOBAL APPETITES

As much as 95 percent of ongoing deforestation is occurring in the tropical latitudes of Latin America, Africa and Asia.11 Agriculture, industry, cities and infrastructure are expanding to meet the needs of rising populations and living standards in those regions. But demand from international markets also plays a key role.12 About three-quarters of tropical deforestation can be traced to three global industries: grazing cattle for beef, oil seed cultivation - primarily soy and palm oil - and forestry plantations for paper and timber.13 As a result, actors along international commodity supply chains - including producers, traders, processors and consumers - are implicated in tropical deforestation and can influence its extent. ←

"We need forests now more than ever, especially in this time of crisis."

MARIO BOCCUCCI, HEAD OF UN-REDD PROGRAMME SECRETARIAT

Share of tropical deforestation from agricultural products

This is measured as the average over the period from 2010 to 2014.



SOURCES: PENDRILL ET AL. (2019). AGRICULTURAL AND FORESTRY TRADE DRIVES LARGE SHARE OF TROPICAL DEFORESTATION EMISSIONS. GLOBAL ENVIRONMENTAL CHANGE, 56, 1-10.

TAKING RESPONSIBILITY FOR GLOBAL COMMODITY CHAINS

DEFORESTATION is a complex problem. Its direct and indirect causes operate at global, national and local levels and extend far beyond the forestry sector. The interplay of these factors shapes deforestation in different ways in every locality. As a result, combating deforestation needs action on multiple fronts.

Global supply chains are one area with great opportunities for progress. Governments, companies and financial institutions have made bold commitments and taken steps to address deforestation resulting from their activities, including the improvement of transparency around their supply chains. However, it has not been enough to halt forest loss.

For instance, a 2006 agreement signed by major traders of soybean, most of which is used to feed livestock for beef production, has slashed deforestation in the Brazilian Amazon. However, there is evidence that this has displaced soybean cultivation – and deforestation – to other parts of South America.¹⁶

Booming production of palm oil in Southeast Asia has been another focus of efforts to create sustainable supply chains. Certification schemes such as the Roundtable on Sustainable Palm Oil reward suppliers who avoid clearing primary forest and meet other environmental standards required by customers and consumers. However, only onefifth of palm oil production is covered by the scheme so far.¹⁷

Investors can throw their considerable weight behind efforts to combat deforestation by only financing companies that meet stiff sustainability criteria. However, a recent assessment found that only 37 percent of 150 major financial institutions have deforestation policies.¹⁸ Another study found that the environmental, social and governance policies of many investors in deforestationrelated commodities remain "very weak".¹⁹ \leftarrow

Tackling deforestation at every level



INTERNATIONAL ACTION

The international community can strengthen global frameworks for the protection and restoration of forests. These include the Rio Conventions on climate change, biodiversity and land degradation, and voluntary initiatives such as the New York Declaration on Forests.



ECONOMIC INCENTIVES

Payments for ecosystem services, carbon credits and other economic incentives can persuade and reward governments, communities and private entities to maintain forests and use them sustainably.



TRANSPARENT SUPPLY CHAINS

Supply chains for globally traded commodities can be made more transparent, enabling regulators, producers, traders, processors and consumers to make decisions, investments and choices that are deforestation-free.



NATIONAL LAWS AND REGULATION

With about three-quarters of the world's forests owned by governments,¹⁴ national authorities can drive more sustainable forestry practices and step up the enforcement of forest protection laws as well as developing integrated land-use policies, including under the REDD+ framework.¹⁵



INNOVATION AND INVESTMENT IN AGRICULTURE

While more land is needed to feed growing populations, the pressure to convert forests can be offset by making agriculture more productive and sustainable. This means innovation and investment in areas including irrigation and better crop varieties and livestock breeds, as well as more support for small-scale farming.



THE COVID-19 pandemic has spotlighted humanity's vulnerability to global threats and demonstrated its willingness and capacity to address them. The massive efforts underway to speed social and economic recovery from the pandemic and reduce the risk of a recurrence should incorporate action on deforestation. \leftarrow

What can be done by decisionmakers in the public and private sectors?

• Ramp up efforts to meet the Paris Agreement goal of holding global warming below 2°C, including the protection and restoration of forests, and setting ambitious goals for protected areas and other measures to combat deforestation under the post-2020 biodiversity framework.

• Support the UN Decade on Ecosystem Restoration 2021-2030 and the realization of commitments to restore nearly 1 billion hectares of land, including forests and farmland.²⁰

• Increase knowledge and awareness of the links between deforestation and other forms of ecosystem degradation and human health, from the risks of climate change and future pandemics to how plant-based diets can reduce pressure on lands and forests.

• Secure more deforestation-free commitments from companies and organizations, especially along international supply chains for commodities linked to forest loss. Build stronger financial reporting frameworks to channel investment into zero-deforestation and sustainable activities.



"2021 can be a turning point. It's time to increase action and financing to move from an era of commitments to a decade of implementation of forest solutions. Finance and the private sector will have a key role in unlocking the benefits of forests for climate, biodiversity and human health."

MARIO BOCCUCCI, HEAD OF THE UN-REDD PROGRAMME SECRETARIAT

ABOUT FII INSTITUTE

THE FUTURE INVESTMENT INITIATIVE (FII) INSTITUTE is a global new generation non-profit foundation built on ESG principles and strong pillars – THINK, XCHANGE, ACT – with a mission to positively impact humanity through 5 focus areas: Sustainability, HealthCare, Education, AI and Robotics. With an ambitious vision to empower the brightest minds to shape a better future for ALL and with ALL, the FII Institute will bring together global leaders and experts to collectively curate and enable concrete ideas that can solve today's most pressing societal issues.

This paper is part of our Sustainability Series, where the Institute's approach to addressing issues within this field emanates from our focus on SDG 13, SDG 14 and SDG 15. To drive results, the FII Institute's attention will initially focus on ecosystem preservation in both land and sea capacities, before moving onto sustainable marine and land exploitation and carbon-capture solutions in 2022. We will tackle this in a sequential manner, in which inhibitors to progress are identified, potential solutions are mapped out, and organizations and individuals to partner with are approached. ←

FILINSTITUTE Future Investment Initiative Institute

Contact

FII Institute: Director of THINK (content) lameen.abdulmalik@fii-institute.org

References

1 Ritchie and Roser, 2021. Forests and Deforestation.

2 FAO and UNEP, 2020. <u>The State of the</u> World's Forests 2020.

3 IPCC, 2014. <u>Climate</u> <u>Change 2014: Mitigation</u> of Climate Change.

4 FAD and UNEP, 2020. <u>The State of the</u> World's Forests 2020.

5 WWF, 2019. <u>Below the</u> canopy: plotting global trends in forest wildlife populations. 6 Giam, 2017. <u>Global</u> <u>biodiversity loss from</u> <u>tropical deforestation</u>.

7 IPBES, 2019. <u>Summary</u> for policymakers of the global assessment report on biodiversity and ecosystem services.

B Morand and Lajaunie, 2021. Outbreaks of Vector-Borne and Zoonotic Diseases Are Associated With Changes. in Forest Cover and Oil Palm Expansion at Global Scale; Wilcox and Ellis, 2006. Forests and emerging infectious diseases of humans. 9 UNEP and ILRI, 2020. Preventing the Next Pandemic: Zoonotic diseases and how to break the chain of transmission.

10 WWF, 2021. <u>Deforestation</u> fronts: Drivers and responses in a changing world.

11 Ritchie and Roser, 2021. Forests and Deforestation.

12 Pendrill and others, 2019. Deforestation displaced: trade in forest-risk commodities and the prospects for a global forest transition. **13** Ritchie and Roser, 2021. <u>Forests and Deforestation</u>.

14 White and Martin, 2002. <u>Who owns the world's</u> forests? Forest tenure and public forests in transition.

15 UNFCCC, undated. <u>REDD+</u> web platform. Fact sheets.

16 Trase, 2020. <u>Trase Yearbook</u> 2020. Executive Summary.

17 RSPO, undated. <u>RSPO</u> in numbers. As of May 2021, 19% of global palm oil production was certified. **18** Global Canopy, 2020. <u>Time for change: deliv-</u> <u>ering deforestation-free</u> <u>supply chains</u>.

19 Forests & Finance, 2021. <u>Finance's role in deforestation</u>.

20 UNEP, 2021. <u>Ecosys-</u> tem restoration for people, nature and climate.