# Deforestation challenges and efforts in global forest conservation



Deforestation continues to pose a significant challenge to global climate stability and ecological health, with forests—covering about 31% of the Earth’s land—playing a vital role in mitigating climate change. Forests absorb vast amounts of carbon dioxide (CO₂), produce roughly 28% of the world's oxygen, and support biodiversity, yet they are rapidly disappearing due to human activities, notably agriculture, logging, urban expansion, and mining.

According to a 2024 report by the International Institute for Sustainable Development (IISD), the planet has lost approximately 420 million hectares of forest over the past thirty years—an area larger than India. This loss releases stored carbon into the atmosphere, exacerbating global warming. Agriculture alone accounts for an estimated 80% of this deforestation.

Several countries have made notable progress in reversing or slowing forest loss. Costa Rica is a prominent example. Between 1997 and 2015, it avoided 166 million tonnes of CO₂ emissions through policies that include payments for environmental services and promotion of agroforestry and silvopastoral systems, which blend forest preservation with agriculture and livestock. Since 2013, more than half of Costa Rica's land has become a carbon sink.

In Rwanda, forest cover has increased from just 10.7% in 2010 to 30.4% in 2024. The country has partnered with the World Resources Institute and the International Union for Conservation of Nature (IUCN) to create the Forest Landscape Restoration Opportunities Assessment (FLROA), integrating ecological, social, and economic goals. Rwanda also uses a National Forest Monitoring System (NFMS) with satellite technology to monitor forest health in real time.

Indonesia, which possesses one of the largest tropical rainforests in the world, has reduced its deforestation rate by 64% from 2015 to 2022, achieving its lowest primary forest loss in 2022. The country’s forest moratorium, instituted in 2011, focuses on protecting peatlands and primary forests, supporting its commitments under the Paris Climate Agreement through REDD+ initiatives aimed at reducing emissions from deforestation.

By contrast, Pakistan is facing significant challenges with forest depletion despite contributing less than 1% to global greenhouse gas emissions. Ranked fifth in the 2024 Global Climate Risk Index, Pakistan has experienced a consistent 4% annual decline in forest cover over the last two decades. The Pakistan Institute of Development Economics (PIDE) reports that while a healthy environment requires approximately 25% forest coverage, Pakistan’s forest area stands at only 4.8%, down from 5.9% in 2000. Around 27,000 hectares of forest are lost every year.

The distribution of Pakistan’s forest cover is uneven. Khyber Pakhtunkhwa possesses the largest share at 32.7%, followed by Sindh (14.8%), Punjab (12.4%), Balochistan (11.1%), Azad Jammu and Kashmir (9.6%), and Gilgit-Baltistan (7%). The Swat region has experienced substantial tree loss, with estimates suggesting up to 40% of trees have been cut down recently. Journalist Adnan Bacha reports that between 500 to 1,000 trees are felled daily in this district, with over 75,000 trees removed in the last quarter of 2024 alone.

Urban areas also contribute heavily to deforestation in Pakistan. Between 2001 and 2023, cities such as Hyderabad, Karachi, and Sukkur in Sindh province accounted for 60% of the region's tree cover loss. In Punjab, urban centres including Lahore, Faisalabad, Sargodha, and Gujranwala were responsible for 57% of deforestation, amplifying carbon emissions and disrupting local climate systems.

In response, the Sindh government launched an afforestation initiative in 2024 aimed at greening 34,995 acres in Jamshoro and Matiari. The Forest and Wildlife Department also selected riverine districts such as Dadu, Shaheed Benazirabad, and Larkana for reforestation projects spanning 88,002 hectares. These efforts could play a significant role in curbing greenhouse gas emissions if sustained and expanded.

Globally, Pakistan's tree count remains low, with fewer than one billion trees compared to Russia's 642 billion, Canada’s 318 billion, Brazil’s 302 billion, and the United States’ 228 billion. India, with over 827,000 square kilometres of tree cover (approximately 25% of its land), ranks highly in forest coverage.

Economically, forests offer potential through carbon credit markets. A carbon credit, which corresponds to the removal of one metric tonne of CO₂, saw its value increase from $4.73 in 2021 to $7.37 in 2022 and $6.97 in 2023, according to the Ecosystem Marketplace. It is estimated that 50 trees are needed to offset one tonne of CO₂. Pakistan’s newly approved Carbon Market Policy, introduced in January 2025, aims to leverage afforestation efforts into generating and trading carbon credits, which could help improve forest cover, enhance biodiversity, and contribute to climate change mitigation.

The preservation and expansion of forests remain critical in global efforts to combat climate change. Achieving these goals involves a combination of policy innovation, technological monitoring, financial incentives, and international cooperation as demonstrated by countries like Costa Rica, Rwanda, and Indonesia. Pakistan’s current initiatives, although challenged by rapid deforestation, indicate potential pathways for improvement in forest management and climate resilience. The International Policy Digest is reporting on these developments as integral to understanding ongoing efforts to address one of the planet’s most urgent environmental issues.

Source: [Noah Wire Services](https://www.noahwire.com)

## References

* <https://www.reuters.com/sustainability/land-use-biodiversity/business-failure-act-deforestation-puts-everyone-risk-2025-04-29/> - This article discusses the global challenge of deforestation and its impact on climate stability, highlighting the insufficient corporate actions to halt deforestation despite international commitments.
* <https://time.com/6215338/cant-have-a-stable-climate-if-we-keep-destroying-nature/> - This piece emphasizes the critical role of forests in mitigating climate change and the consequences of their degradation, aligning with the article's assertion of forests' importance in climate stability.
* <https://www.lemonde.fr/en/environment/article/2024/04/08/global-tree-cover-loss-continues-despite-dramatic-progress-in-brazil-and-colombia_6667696_114.html> - This report highlights the ongoing global tree cover loss, despite progress in certain countries, supporting the article's claim about the rapid disappearance of forests due to human activities.
* <https://www.ft.com/content/e350a40b-01ea-4342-af02-120467406486> - This article details how mining activities contribute significantly to global deforestation, corroborating the article's mention of mining as a major driver of forest loss.
* <https://apnews.com/article/51ef1edc765ff1f4d8c2b6ea68618f75> - This news piece covers a summit aimed at protecting tropical rainforests, involving leaders from countries like Brazil and Indonesia, aligning with the article's mention of international cooperation to address deforestation.
* <https://www.reuters.com/world/tropical-forest-loss-eased-2023-threats-remain-analysis-shows-2024-04-04/> - This analysis shows a decline in tropical forest loss in 2023 but highlights ongoing threats, supporting the article's point about the persistent challenges in halting deforestation.
* <https://news.google.com/rss/articles/CBMiiAFBVV95cUxQVFZfYmM4YzJ5WC1uUzdrR0NLTFRTa25pU0I4MmRyRWtaNVBWcmNPWGVqSFY0VzRyQXBZNEJ0RmxRNUNJRUU3VXktck1kV0tUcWJFMlpxTWtMODFSVVJlWC1KTkJmcmplUEVTZmw1VlZSNG1ZOGlOcWZ4OExDSHhHcFpmemdpZVZH?oc=5&hl=en-US&gl=US&ceid=US:en> - Please view link - unable to able to access data