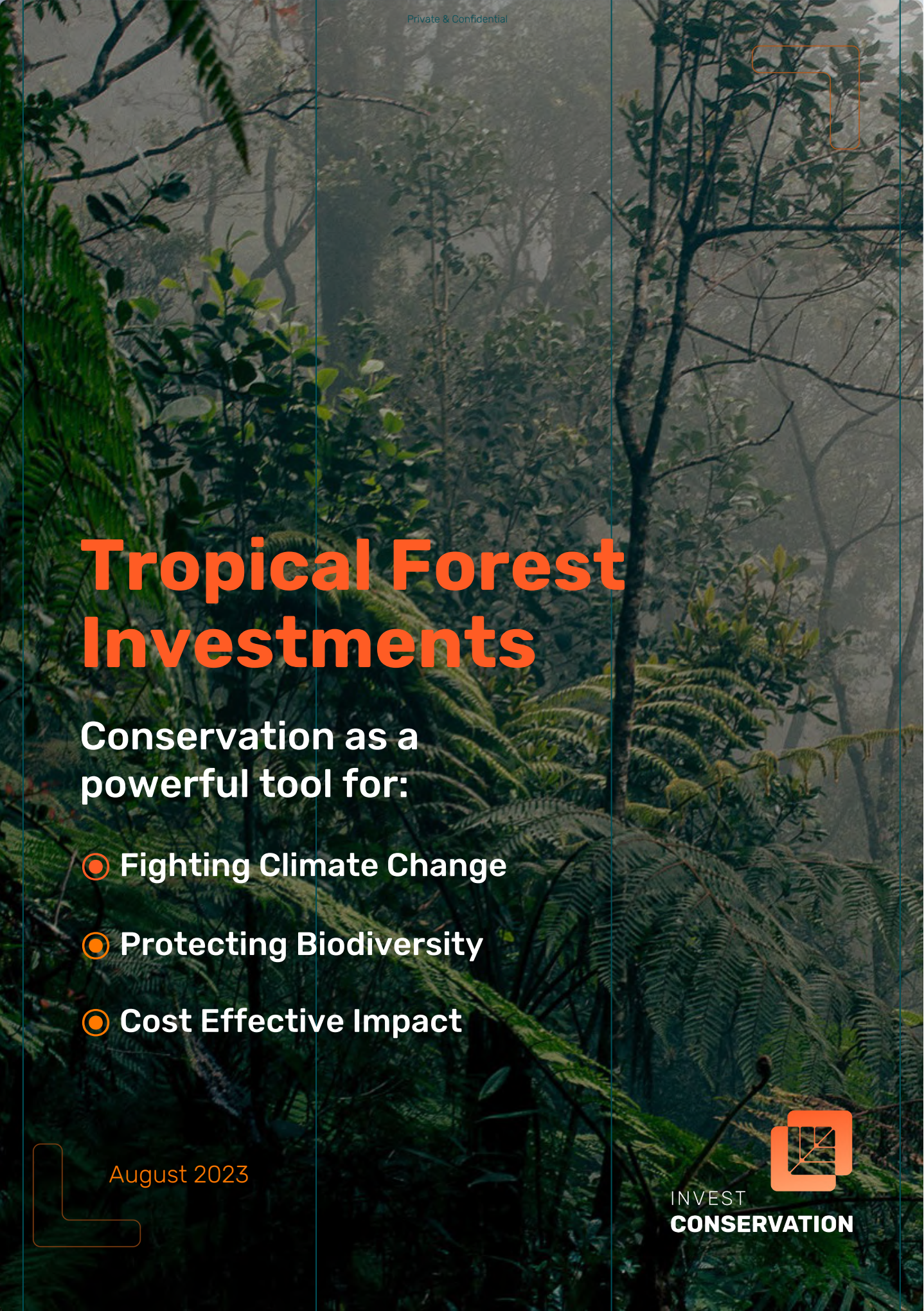

Tropical Forest Investments

Conservation as a powerful tool for:

- Fighting Climate Change
- Protecting Biodiversity
- Cost Effective Impact

August 2023

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Wehea Reserve
1.32'55.39"N 116.27'31.88"E

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Why Invest in Tropical Forest Conservation?

Why Conserve Tropical Forests?

Global Climate Impact

Halting tropical deforestation is key to tackle global climate change. Forests act as natural climate regulators that absorb carbon and regulate water cycles. When they are destroyed this ability is lost, carbon is released.

> "Carbon emissions from tropical deforestation are greater than the whole of Europe ".

Deforestation, threefold impact on climate:

- **Carbon is released** from cut down trees.
- **Carbon sequestration** from ongoing forest growth and maturation is lost.
- **Increased droughts and fires** due to altered rain patterns.

Irreplaceable Biodiversity

The principal reason for species extinctions today is tropical deforestation, caused by human activity, The tropics hold unique biodiversity that cannot be replaced.

> Supports 43% of Earth's endemic species ".

Deforestation puts Biodiversity at risk:

- **40% of threatened birds and mammals** are found in adjoining reserve areas subject to deforestation.
- **140,000 species are lost** each year.

Cost Effective

Ecosystems are complex, therefore reforestation is time-consuming, expensive, and resource-intensive compared to conserving mature and unique tropical forests from present deforestation.

> "Avoiding deforestation, is 7-10 times more cost-effective than reforestation".

Tropical Forests are natural carbon capturers:

- **Tropical Forest Carbon has 2.5x higher impact** vs temperate regions *
- **Unique ecosystems** and biodiversity that **cannot be replaced**
- **Preserving** is **more cost effective** than **restoring.**

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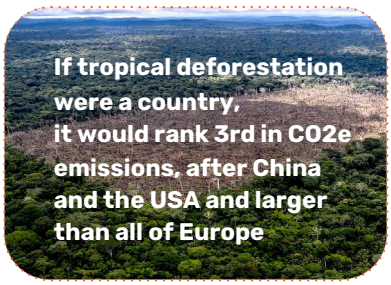
Tropical Forests Impact

Conserving tropical forests is cost-effective and crucial for climate change mitigation and biodiversity protection.

Copalinga Reserve
4°5'26.72"S 78°35'7.01"W

Climate change

Halting tropical deforestation is essential for tackling global climate change. Gibbs (2018) emphasized that if the current rate of loss of tropical tree cover persists, achieving the Paris Agreement's goal of limiting warming to 2°C will be nearly impossible.



(Gibbs, 2018).

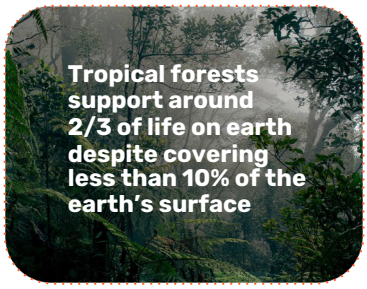
Tropical deforestation has a substantial impact on global warming due to both CO2 emissions and biophysical effects. When trees are cut down, carbon is directly released and carbon sequestration from ongoing forest growth and maturation is also lost.

It's important to note that all tons of carbon are not equal. **A ton of avoided deforestation in the tropics is 2.5 times more beneficial than one ton of carbon sequestered in temperate areas.**

(Lawrence, 2022).

This is due to biophysical feedback, **magnifying the impact of tropical deforestation** primarily through **reduced long-term precipitation** and altered rain patterns, **leading to more droughts & fire risks** (Leite et al., 2021; Lawrence, 2022).

This loop affects regional and global climate, possibly reaching a critical "tipping point" for biodiversity and climate change.

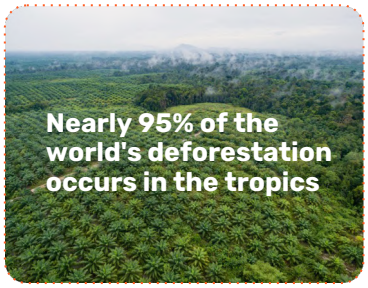


(Cincotta, 2001).

Forests are natural carbon sinks, **but tree planting can't replace conserving tropical forests.** On average, "Avoiding deforestation is 7-10 times more cost-effective than reforestation."

(Busch et al.,2019).

Intact forests are vital for carbon sequestration, biodiversity, and ecosystem structure. **Reforestation is complex, takes time and considerable resources.**



(Curtis, 2018)

Conservation

In the face of escalating biodiversity loss, the urgency to accelerate nature conservation has never been greater,

The establishment of reserves, where land is set aside for the safeguarding of species is the most effective form of conservation.

(Phalan et al. 2011. Edwards et al. 2015).

Well managed private/ community reserves have a crucial role in:

1) acting as buffers for sometimes poorly resourced national parks.
2) protecting key hotspots that are not well represented in government reserves.
3) allowing for active engagement and support from indigenous/local peoples.

Sustained, long-term conservation with consistent funding is imperative.

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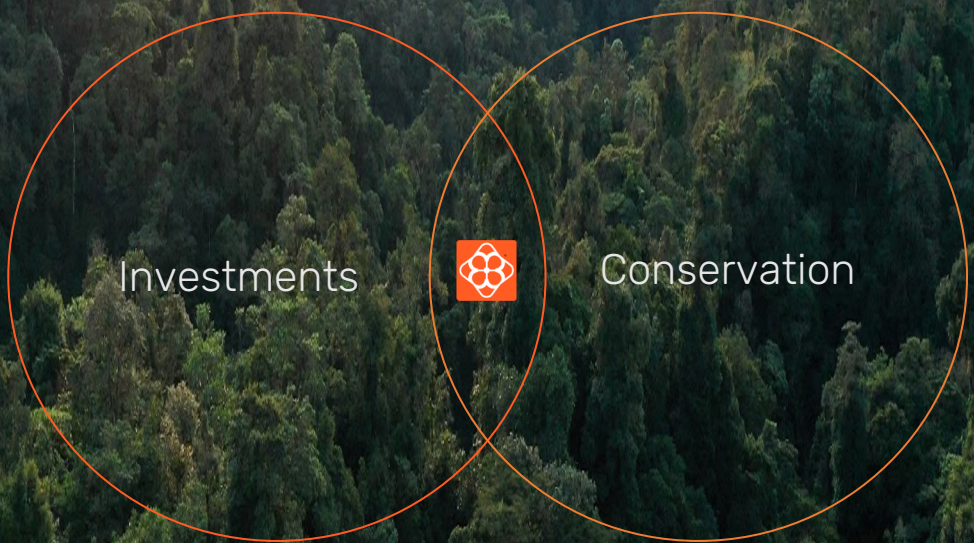

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