



PHOTO: © Raquel Maia Arvelos/CIFOR | Itapu restoration trail and tree planting, Brazil

## THE BONN CHALLENGE: RAMPING UP LAND AND FOREST RESTORATION

# TRANSLATING SUCCESS INTO SEQUESTRATION

**The Bonn Challenge aims to bring 150 million hectares of deforested and degraded land into restoration by 2020 and 350 million hectares by 2030. Achieving that outcome would sequester up to 1.7 billion tonnes of carbon per year, equivalent to 14% of global emissions. And in terms of pledges and progress documented in pilot countries, the Bonn Challenge is well on the way to achieving that goal.**

If conservation outcomes were based on commitments, the Bonn Challenge would be winning its own race. Since 2011, the Challenge has witnessed extraordinary uptake to deliver on its goal to bring 150 million hectares of deforested and degraded land into restoration by 2020, and 350 million hectares by 2030. And so far, so very good – as of August 2019, total pledges stood at 170 million hectares. Now it's about turning those pledges into actions on the ground. Early evidence provides cause for optimism.

In 2018, IUCN's Bonn Challenge Barometer of progress found that from the 13 countries already reporting on area under restoration, 43.7 million hectares are under restoration transition. This represents an implementation rate of 56% of these countries' Bonn Challenge commitments. The Barometer also indicates that the benefits accruing from these documented activities include an additional 354,000

jobs, an average investment per hectare of at least US\$235 and almost 1.4 billion tonnes CO<sub>2</sub>e sequestered. The Barometer protocol has been applied in depth in five countries – Brazil, El Salvador, Mexico, Rwanda and the United States – who had made commitments totalling 30.7 million hectares, with 89% (27 million hectares) under restoration by 2018. Commercial plantations only account for 2.2% of those documented forest landscape restoration activities.

A rapid application was undertaken in 14 additional countries – Burundi, Cameroon, Colombia, Costa Rica, Cote d'Ivoire, the Democratic Republic of the Congo, Ghana, Guatemala, India, Kenya, Malawi, Mozambique, Sri Lanka and Uganda. The online protocol is now available to all pledgers.

Undergirding the Bonn Challenge is what is known as FLR (the forest landscape restoration approach), which aims to restore ecological integrity at the same time as improving human well-being through multifunctional landscapes. FLR manifests through different processes, including managed natural regeneration and agroforestry, but always with an eye towards tangible deliverables such as jobs, income generation and carbon sequestration. The Bonn Challenge is best thought of as an umbrella and aspirational reference point supported by contributing regional FLR programmes – including Initiative 20x20 in Latin America and the Caribbean, AFR100 (the African Forest Landscape Restoration Initiative) and the Agadir Commitment in the Mediterranean. These initiatives reinforce collaboration on restoration activity regionally. The Bonn Challenge contributes to the biodiversity goals of Aichi, the climate goals of REDD+ and the Paris Agreement,

the land degradation goals of Rio+20 and the Sustainable Development Goals. It really is the full package.

The Challenge is beginning to be taken to the domestic level, too. Last year, India – which has pledged to bring 21 million hectares of degraded land into restoration by 2030 – launched the first ever country-level progress report on the Bonn Challenge. Five regional case studies bring the scale and ambition of India's restoration programme to life. And the country's progress – as of 2018, 9.8 million hectares of India has been brought under restoration since 2011. Just a mere 11 million to go.

So far, Bonn Challenge countries are using three main restoration approaches: natural regeneration (34%), agroforestry (21%) and converting marginal agricultural

lands to valuable crops (45%), such as Eucalyptus for paper. Recent analysis celebrates the international progress of the Bonn Challenge, but calls on natural regeneration – the cheapest, easiest and most effective of the three approaches – to play a more prominent role.

Even as deforestation turns the land brown in Brazil, Indonesia and the Congo, restoration and reforestation is making land green in India, China and Ethiopia. It's sometimes thought that too often restoration projects rely too readily on monoculture plantations of fast-growing exotics. This hasn't been the case for Bonn Challenge progress documented to date. It is now well-established: diverse ecosystems are more resilient to extreme floods and droughts, and store much more carbon.

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## NATURE'S CLIMATE STATISTICS

The UN General Assembly decided that 2021-2030 is to be the 'Decade on Ecosystem Restoration'. Restoration is a natural climate solution that requires political will and effective policies, sure, but it has a few things going for it already. We know that restoration opportunities may be found on the third of the planet's land that is degraded. Meanwhile, history tells us we can do it at scale – if we put our minds to it. For example, efforts to restore forests in South Korea, China, and India have removed more than 3.3 billion tonnes of carbon from the atmosphere over the past two decades, at a very reasonable cost.

And if history tells us we can do it, economics tells us we should do it. The restoration of 150 million hectares of degraded and deforested lands in biomes around the world will create approximately \$84 billion per year in net benefits that does not even include the additional income opportunities for rural communities. The cost-benefit ratio of restoring 350 million hectares of degraded forest is 7.54 and the net benefit of meeting the Bonn Challenge target would generate a net benefit of between \$0.7 and \$9 trillion. In the US alone, restoration and conservation activities already generate an estimated \$3.8 billion a year and currently sustain 126,000 jobs.

Achieving the 350 million hectare goal will generate about \$170 billion per year in net benefits from watershed protection, improved crop yields and forest products, and could sequester up to 3.2 gigatonnes of CO<sub>2</sub> per year in 2030 when the full target is reached, and a total by 2030 of 21-31 gigatonnes of CO<sub>2</sub>.

Hectare by hectare the greatest climate mitigation benefit comes from restoring natural forests. Natural forests are six times better than agroforestry and 40 times better than plantations at storing carbon. However, the scale of the restoration opportunity is greater when considering the huge area of already degraded land. The greatest and most sustainable benefit can be achieved by pursuing restoration inside and outside natural forests hand-in-hand.

Or think of it like this: for each additional 8.6 million hectares of land left to regenerate – roughly the size of Ireland or the state of North Carolina – the world can store away one billion tonnes of CO<sub>2</sub> by 2100.

## KEY FIGURES

Restoration of 350 million hectares of degraded land between now and 2030 could generate

# \$9 TRILLION

in ecosystem services and mop up an additional 21-31 gigatonnes of CO<sub>2</sub> from the atmosphere.

# 56%

rate of implementation of Bonn Challenge pledges documented to date in 13 jurisdictions.

The restoration of

# 350 MILLION HECTARES

of forest by 2030 would sequestering up to 1.7 GtC per year, equivalent to 14% of the global carbon emissions.

# \$170 BILLION

per year in net benefits from watershed protection, improved crop yields and forest products.

# 15.6 BILLION TONNES

of CO<sub>2</sub> sequestered to date.

59 national and sub-national commitments of more than

# 170 MILLION HECTARES

## PROJECT BACKGROUND

The Challenge was launched in 2011 by Germany and IUCN, then later endorsed and extended by the NYDF at the 2014 UN Climate Summit.

## EXECUTING ENTITY

IUCN (International Union for Conservation of Nature) serves as its Secretariat, with support from the German Federal Ministry for the Environment, Nature Conservation and Nuclear Safety. Members of the Global Partnership on Forest and Landscape Restoration (GPFLR) provide support in the definition and implementation of pledges.

## SDGs



## FUNDING

\$48.5 billion invested

## VIDEOS & STORIES

<https://youtu.be/J7077absZfg>  
<https://youtu.be/eHqnWNx-bJs>  
<https://youtu.be/BTH4TqCgqXM>  
<https://youtu.be/FMiIddpP9IQ>

## CONTACT

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