FOUNDATION FOR CLIMATE RESTORATION

# What is climate restoration?
## And can we really do it?

### What is climate restoration?

Climate restoration means ending the climate crisis by restoring a climate that humans have actually survived over the long term. It's important to do this by 2050, while Earth's systems are still working well enough.

Most people agree that we have a moral obligation to restore a safe climate for future generations. Although climate restoration is still a new idea to many — we can do it if we want to!

### What's a safe climate?

It's one that has sustained humanity and nature over the long term.

For at least 800,000 years, C02 levels never rose above 300 parts per million (ppm). (In other words, of every million dry air molecules, only 300 were CO2.) We are literally designed for a world of 300 ppm CO2 and below. That's safe.

The "pre-industrial" climate, which we enjoyed for the last 10,000 years had CO2 levels about 280 ppm. A century ago, CO2 climbed above 300 ppm. It's been rising ever since, further and further out of our historically safe range.

### Where are we now?

Atmospheric CO2 is now 50% higher than pre-industrial levels. It's 420 ppm. The last time there was this much CO2 in the air was about 14 million years ago — when hominids hadn't evolved yet!

Current levels are so high because there's an extra *trillion* tons of CO2 already in the air, from the fossil fuel we burned over the last couple of centuries.

CO2 is set to climb over 460 ppm by 2050 if we continue doing what we've been doing, and don't implement large-scale climate restoration solutions soon. Climate chaos will get worse than it is today.

**Who is the Foundation for Climate Restoration?**

Founded in 2017, F4CR is building a global movement to restore a safe climate for future generations. We work through education, communications, and advocacy. Members are the heart of the organization. If you're concerned about the climate, you're welcome to join us!

Contact Info@F4CR.org

## Won't "net-zero" keep us safe?

Getting to "net zero emissions" by 2050 is now the goal of most climate action.

Currently, we're adding about 36 billion tons of CO2 each year. Net zero means *not* adding any more C02. Net zero is vital for human and ecosystem health.

The idea also causes a lot of confusion. Many people think that net zero will also restore a safe climate. That's not the case.

Why not? Because there's already a trillion tons of CO2 in the atmosphere! *That's* what's causing nearly all the climate chaos. And it'll stay there up to 1,000 years unless we intervene to pull it out.

Our yearly emissions — now 36 billion tons of CO2 — is only 3.6% of what's already in the air. If we stopped *adding* CO2 today, we'll still have climate chaos.

An analogy: Let's say your basement is flooded. Net zero means plugging the leak so no more water seeps in. Climate restoration means pumping out the huge amount that's already there. We can and must do both.

## How do we know that climate restoration is possible?

Because it's happened many times before. Nature removes about a trillion tons of CO2 regularly — about every 100,000 years — leading up to ice ages. Nature also pulls down billions of tons — "gigatons" — of CO2 very quickly, after volcanic eruptions.

## We know how to remove CO2 the way Nature does

About 30 years ago, scientists figured out how to reproduce and amplify the natural processes that remove CO2 on a large scale.

## How can we restore a safe climate?

By implementing nature-based solutions that meet three key criteria. Climate restoration solutions must be able to

- remove CO2 permanently;
- scale swiftly and safely to remove many gigatons a year; and
- be financially feasible.

The methods we know that fulfill all three criteria are those that amplify Nature's time-tested ways. They include:

1) Boosting photosynthesis in the ocean: This turns massive amounts of CO2 into vegetation (phytoplankton), which then feeds fish and other sea life. The CO2 drifts to the depths as the plants and creatures die.

2) Augmenting Nature's way of removing methane from the air. Methane is about 80 times more powerful than CO2.

## Why aren't we already doing this?

Most people don't yet realize that it's possible. That's where the Foundation for Climate Restoration comes in — making climate restoration an idea whose time has come. We are educating activists and policymakers so they call for what we all want--a safe climate for our children.

## Want to help restore the climate?

Find out how by visiting www.F4CR.org.