WHAT IS CARBON SEQUESTRATION?

Carbon sequestration is the process by which atmospheric carbon dioxide is taken up by trees, grasses, and other plants through photosynthesis and stored as carbon in biomass (trunks, branches, foliage, and roots) and soils. The sink of carbon sequestration in forests and wood products helps to offset sources of carbon dioxide to the atmosphere, such as deforestation, forest fires, and fossil fuel emissions.

Deforestation is actually one of the biggest sources of carbon dioxide, because when trees are cut down much of the carbon stored within them escapes into the air – especially if the wood is burned.

TREES AS A CLIMATE SOLUTION

Tree growing is a Nature-Based Solution that is cost-effective and has multiple ecosystem benefits, such as sequestering carbon, preventing soil erosion, improving water and air quality, and conserving biodiversity and wildlife habitats. And, it provides tangible socio-economic benefits such as livelihood and income opportunities for grassroots women leaders and their communities.

The goal is to “grow” trees, rather than just planting, emphasizing the Protect - Manage - Restore Framework. If trees are to be an effective climate solution, simply putting a seedling in the ground is not sufficient. Tree growing refers to nurturing the sapling to maturity so that it can reach its full carbon storage potential. It also needs to be the right species, planted in the right conditions.
Global forest vegetation stores 283 gigaton of carbon in its biomass and a mature tree can sequester 48 pounds of CO2 every year. This information combined with a recent study that globally there are 1.7 billion hectares of treeless land on which 1.2 trillion native tree saplings would naturally grow, makes forest restoration and tree growing a major climate change solution.

In 2017, land use changes – mostly deforestation – contributed four billion tonnes of CO2 emissions to the global total of 41 billion tonnes of CO2. That means, if we stopped cutting down trees we would cut our annual emissions by about 10%.

While tree planting as individuals is a concrete action to help disrupt the climate crisis, it is important to remember that tree planting isn’t the only climate solution and must be undertaken with careful consideration towards:

1. tree species (native/indigenous vs. non-local species),
2. planting in the right conditions, which includes planting on former forest land and avoiding other ecosystems such as wetlands and grasslands,
3. Working with community members and leaders, local officials, and even farmers to ensure trees can grow undisturbed,
4. ensuring care for the tree so it reaches maturity,
5. Avoiding monoculture plantation type of forests, and
6. protecting/restoring forests and wetlands.

However, we still need to engage in other climate actions, as this forest restoration and tree growing effort will likely take 50-100 years to have its full effect of removing billions of tonnes of carbon.

**Pledge**

Grow at least ONE tree between now and Earth Day (April 22, 2021) and be a part of WEA's global impact to disrupt the climate crisis.

Email us photos/videos and any updates on your next steps at info@womensearthalliance.org.