Day 17 Soil

Greener

Team Name: The Loraxes Username: theloraxes Email: <u>elspethcollard@gmail.com</u> School: TC Williams High School Climate change is rated as biggest global issue(45.2% according to millennials)

Guess who has the biggest potential to help us win this battle of climate change?

Hint: It is where you are standing on.





So, it means that Agriculture contributes to Climate change, right?

- No, sustainable agriculture like carbon farming
- doesn't, rather it has given a new shape to the
- struggle of climate change.



What is carbon farming?

All agricultural production originates from the process of plant photosynthesis, which uses sunshine to combine carbon dioxide (CO_2) from the air with water and minerals from the soil to produce plant material, both above and below ground.

Carbon can be stored long-term (decades to centuries or more) in soils in a process called "soil carbon sequestration." Carbon Farming involves implementing practices that are known to improve the rate at which CO_2 is removed from the atmosphere and converted to plant material and/or soil organic matter. Carbon Farming is successful when carbon gains resulting from enhanced land management and/or conservation practices exceed carbon losses.

But how does soil rich in organic matter help?

- More resistant to drought
- Increases soil's water holding capacities
- Less Prone to erosion
- Harbor more beneficial soil organisms
- Generally better at growing healthy crops with fewer synthetic inputs
- Healthy, functioning ecosystems



So how to put carbon back to the soil where it belongs?

- **Tree plantation.** Plants capture carbon dioxide in their leaves and pump the carbon down to the roots to feed hungry living microorganisms living in the soil. Practices like keeping soil covered with plants.
- Increasing crop diversity.
- Composting.
- Carefully planned grazing.



People who are spearheading regenerative agricultural practice(or soil research)



Founder & CEO of Nutiva, the leading organic super foods brand.

His advice to YOU:

I would suggest to actually go learn more about food, go work in a farm and get involved with nonprofit organizations that are advocating sustainable farming. Cook more and go to farmers market. Participate conferences such as <u>Eco Farm</u> to learn and network.

"Doing something that you firmly believe in and you are passionate about, even if it is not popular. That has been my path since I was young." "It is important to decarbonize our energy. Yet equally important is to recarbonize our soils. There is a scientific research that a mere 2 percent increase in the carbon content of the planet's soil could offset 100 percent of all greenhouse gas emissions going into the atmosphere." The French government recognizes this and calling on all countries to join them to increase soil carbon by 0.4% each year. If every nation were to reach this ambitious and achievable goal, we could store 75% of global annual greenhouse gas emissions.

Isn't it enough to make a real difference towards our planet's future well being?

Now it's your turn! How can you help?

- Compost
- Learn which perennials do well in your area and plant deep-rooted perennials in your garden.
- Get together with neighbors to change homeowners association regulations or town ordinances that prohibit front yard vegetable gardens and fruit trees.
- Eliminate chemical inputs. Any product ending in "cide" is designed to kill. Such products are detrimental to soil life, pollinators, birds and other living things including pets and children.

Steps that government should take:

Changing the USDA policy probably to motivate farmers to adopt more regenerative farming practices.

We need lot more photosynthesis for healthy soil. Then the solution of the world's most critical issue will be right below your feet.





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