

Fairchar carbon2soil for Africa

Our vision

Simultaneously removing CO₂ from the atmosphere, improving agricultural land using the carbon component (fraction) of the earth, remineralizing soils, saving the climate with natural solutions, bringing green opportunities within reach of rural farmers including refugees. Fairchar wants to set up many local carbon2soil centers to produce soil improver and CO₂ capture biochar.



Introduction Fairchar carbon₂soil

Since well before 2000, Fairchar has been directly involved in innovative small-scale technology development that, in addition to the production of renewable energy, makes permanent capture and storage of CO₂ possible. And with that, improvement of the poor agricultural land is within reach locally. The basic product for this is biomass that can be grown on that agricultural land.

Carbon₂Soil = compounded long-term growth

- more arable soils
- regenerated soils
- better soils
- better farming practices
- better tools
- better health
- better food

Fairchar currently forms a cooperative for its 40+ members, often with a background in agriculture (especially sorghum) and renewable energy. Their extensive knowledge and expertise can be shared via Fairchar with local entrepreneurs who run a Fairchar carbon₂soil center.

Besides cultivating sorghum in Congo, the operational African Wood Grow in Kenya and talks for a centre next to two refugee camps in Uganda, Fairchar has built up many contacts elsewhere in Africa.

Centre characteristics

Bring farmers on poor land, local entrepreneurs in (first only) Africa together with EU companies that have a CO₂ duty of care (CO₂ negative) in a healthy business environment. Then you have a Fairchar carbon₂soil (REACH & TEACH through support from Fairchar) centre.

Responsibility for the centres is preferably placed with a local female (women have a bond with biomass because they have always gathered wood for their families) entrepreneur. This entrepreneur is the owner together with a European (female) partner. The latter provides the link with the knowledge base of the Fairchar Cooperation.

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About 150 small-hold farmers will supply the residual flows of food crops plus biomass grown in the 3rd dry season to the center on 250-300 hectares. The center can control biomass flows for their origin (preventing logging).

With the innovative, small-scale technology of Nettenergy (NL), the biomass is converted into biochar and syngas (as electricity for, for example, a local hospital or cold storage facility), wood vinegar and bio-oil. The farmers receive the biochar back that they process in their land. This improves their land and becomes much more usable in the dry season because biochar retains water. The center entrepreneur sells the other products on the local market. The stored CO₂ in biochar provides carbon credits for the EU company concerned.

The owners of the center, in addition to investors, are small farmers and landless people (such as charcoal makers) who live within walking distance of the center. They are united by the REACH & TEACH practice in their quest to restore and improve the soil, capture CO₂, and sell CO₂-based (derived) products.

The carbon2soil practice makes a substantial contribution to the achievement of fourteen (14) of the eighteen (18) UN Sustainable Development Goals.

1 No poverty	Right from the beginning a REACH center start to lift 1,000+ people out of poverty
2 Zero Hunger	From the first day those who are in walking distance of the center do no longer go hungry
3 Good Health and Wellbeing	At the center there will be simple health facilities
4 Quality education	The center will provide instruction and teaching to all within walking distance
5 Quality Education	Education through the internet will be provided
6 Gender equality	Woman will receive special support where there where inequality is observed
7 Clean Water and Sanitation	Simple water cleaning tools and facilities will be made available
8 Affordable and Clean Energy	Pyrolysis oil cookstoves and pyrolysis oil will be provided for free.
9 Decent Work and Economic Growth	The 8 operators will be treated and paid well
10 Decent Work and Economic Growth	The farmers will be paid well for the biomass they bring to the center
10 Industry, Innovation and infrastructure	The Pyroflash installation is highly innovative and will be locally produced under licence
11 Reduced inequality	Inequality between smallholders and landless people will be taken away. Large farmers will be kept at bay.
12 Sustainable Cities and Communities	
13 Responsible consumption and production	
14 Climate Action	Climate actions 1) removal of CO ₂ from the atmosphere and storage, 2) replacing charcoal en wood w pyroil
15 Life below water	
16 Life on Land	
17 Peace and Justice strong institutions	
18 Partnership to achieve the Goal	Strong durable cross continental European/African partnerships form the basis for REACH.

What carbon2soil further distinguishes is that it is an extremely effective combination process of three interacting circular processes.

Picture of restored land in eastern Kenya, using Africa Wood Grow / Fairchar process



The centers are owned and operated by parties (natural and legal persons) who are concerned with CO₂-related problems and who feel compelled to remove CO₂ individually or collectively or to remove CO₂ from the atmosphere.

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1. The REACH & TEACH model

While carbon2soil businesses are promising in more ways than one, they are difficult to start because of so many uncertainties. And they are not so easily removed. To start successfully, the REACH & TEACH pact has been chosen, which results in a cooperation advantage.



Party with a CO₂ issue / problem makes an effort to bring benefits for smallholders within their reach

Carbon2soil REACH & TEACH Centre (women) mediate between CO₂ emitters (problem owners) and smallholders

Smallholders make a concentrated effort to reach for the benefits

2. Strategic advantage carbon2soil

Agricultural Carbon Capture & Storage (Agri-CCUS) is the process of capturing carbon dioxide (CO₂) from the air (biomass) and converting it into commercial products using mobile installations. The CO₂ derived carbon is brought into the ground and plowed under, preferably in poor soil in arid tropical regions. There, the soil will be drastically improved and permanent CO₂ storage will be realized at the same time. Carbon2soil practice is a potential means of reducing the contribution of fossil fuel emissions to global warming and ocean acidification. Industrial Carbon Capture & Storage (CCS) is the large-scale alternative to capture carbon dioxide

The Rotterdam Storage and Capture Demonstration project (ROAD, a Carbon Capture & Storage project), which with an investment of € 500 million is expected to capture 1.1 million tons of CO₂ per year within five years, needs more preparation time. The "capture factory" to be built with this investment naturally still has significant annual operational costs.

(CO₂) from large point sources (power plants). One such plant of 500 MWe power plant is equal to 850 carbon2soil centers. those 850 require an investment of 450 million without operating costs.

3. Involving refugees in carbon2soil

Large displaced groups have settled in many places, for example in Uganda. Their self-reliance is restored by giving them access to one or two hectares of fallow land. When a Carbon2Soil REACH Center - their center - is within walking distance, it can function as a combined community center, a learning center and a location where biomass waste is valorized. From this center they are helped in many ways with the restoration of the piece of land that has been allocated to them (practice in Uganda) by adding biochar. That recovery ultimately leads to an increase in the value of that piece of land.

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According to REACH, every allot-plot farmer has the right to deliver a fixed amount of dry agricultural waste, such as straw, bagasse, rice hulls, to his carbon2soil center every day and receive a good compensation in return. (close-circular).

Call-to-action

Fairchar wants to get in touch with companies that want to work on their carbon footprint. They can get more information via the email address below or by calling.

In addition, Fairchar is looking for support to further introduce our concept.

Contact

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