

Empowering Farming Communities with Sustainable Carbon Removal

Whitepaper



ZeroEx

December 20th, 2024

Introduction

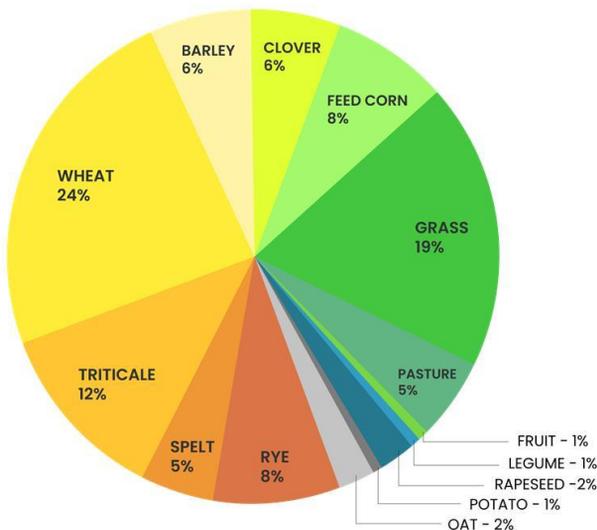
ZeroEx conducts enhanced rock weathering (ERW) in collaboration with farmers in the Eifel region of western Germany, an area with a rich cultural and agricultural heritage. Many of the farmers have owned their land for generations and grow a wide variety of seasonal crops following traditional practices for ensuring crop and soil health. ZeroEx's operations team has deep roots in the farming communities with which it works, helping to build trust and establish strong working relationships. Regions with high crop diversity like the Eifel are extremely important to ensuring food security by providing resiliency to environmental change and ensuring a sustainable living for independent farmers.



The Eifel Region

The Eifel region also contains large amounts of basalt, a volcanic rock, providing a convenient source of material for enhanced rock weathering projects. Basalt is ideally suited to enhanced weathering due to its high concentrations of magnesium, calcium, and sodium oxides, which are locked up in minerals like augite, orthopyroxene, and feldspar. Olivine, another mineral found in basalt, has high potential value for weathering but can contain trace amounts of heavy metals like nickel and chromium. In accordance with German and EU regulations which protect land from heavy metal poisoning, ZeroEx only uses basalt without olivine.

CROPS GROWN ON ZEROEX'S PARTNER FARMS:



AERIAL VIEW OF PARTNER FARM FIELDS, 2024:



The combination of farmers and quarries in close proximity allows ZeroEx to design a customized, location-based logistics chain. Once sources of suitable rock have been identified, the company seeks to partner with farmers who are within a radius of about 40 km of a quarry. By limiting the distance between quarry and farm, ZeroEx reduces the carbon emissions involved in transportation and cuts down on operational costs. Additionally, by using rock dust that is a byproduct of existing mining activities, ZeroEx recycles materials which would otherwise go to waste.

Farmer's Engagement

ZeroEx's commitment to farming communities pervades its work, from designing rock delivery routes to lobbying before government bodies for greater support for ERW projects. The company stays in contact with its partner farmers at every stage of the ERW process, organizing events like a visit to one of ZeroEx source quarries and which build a sense of community. **EVENT WITH FARMERS IN NOVEMBER 2024:** The strong collaboration is the company's greatest weapon in the fight to scale up carbon removal and mitigate climate change.

EVENT WITH FARMERS IN NOVEMBER 2024:



ZeroEx

Pioneered in Germany.

Trusted by the world.

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