Soils are the largest terrestrial carbon storages on Earth. However, land-use conversion and soil cultivation over time has destroyed soil carbon stock capacity and is responsible for approximately 33% of present GHG emissions. Latvia’s agriculture is responsible for 21% out of the country’s total emissions, which is over twice as much as the 10% EU average.

In 2018 we have started LIFE Climate Action project - Climate Responsible Agriculture for Latvia, LIFE16 CCM/LV/000083. The current project has the ambitious aim to implement, test, evaluate, promote and provide guidance on effective and economically feasible means for the reduction of agricultural GHG emissions while preserving stable income for farmers. The project will demonstrate opportunities for practical management practices of agricultural lands for GHG emission reduction purposes as a basis for sustainability of rural areas and stimulus for local economies.

We expect to provide valuable knowledge on reduction of agricultural GHG emissions. Three different economically viable and climate responsible agricultural practices will be demonstrated on a total of 17 pilot sites covering approximately 280 hectares of Latvia’s agricultural lands.

Here we present our approaches on how to reduce GHG emissions at farm level. Concrete actions to establish demonstration areas for no-till farming, soil enrichment with biochar, and installation of controlled drainage system will be presented. Monitoring and evaluation of the impact of the project actions also will be discussed.