

AgStack initiates a global scientific alliance for in-field carbon accounting in agriculture

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The AgStack Foundation, a Linux Foundation project that aims to increase the efficiency of food and agriculture innovation through scalable, reusable open-source digital infrastructure, recently launched a sub-project to develop an open-source, global-scale digital/remote sensing model for monitoring carbon levels in agriculture and forestry.

With global warming and climate change prevailing, it has become increasingly imperative to take action to reduce carbon emissions and mitigate the impact of climate change. One strategy that has gained momentum is using agriculture and forestry land for carbon sequestration — the process of capturing carbon dioxide from the atmosphere and storing it in ground reservoirs.

While public-private stakeholders have been developing incentive structures to encourage participation through carbon credit markets, the current measurement, reporting, and verification (MRV) process is manual, expensive, and becomes economical only for large growers and projects. Making a sustainable global impact requires an MRV process that provides transparency and scales efficiently to enable participation from stakeholders of all sizes economically viable.

AgStack's subproject will leverage the power of existing digital infrastructure such as the geo-id asset registry and the open-source community to develop models that enable existing carbon sequestration models such as NASA SMAP to be scaled down so they can be implemented at an individual field level. Participants will be able to use the open-source models and compute parameters such as carbon flux through public or private data sources on their own servers and report back using the geo-id digital infrastructure maintained by AgStack.

Climate change is a global challenge that requires urgent action. Carbon sequestration is a promising strategy to reduce carbon emissions and mitigate the impact of climate change. However, AgStack is actively trying to solve the MRV process expense through open source.