4 per 1000 initiative to help farmers with soil management reverse degradation

The 4 per 1000 initiative, backed by the governments of France, Germany and Spain launched new digital hub at the recent Global Climate Action Summit. The hub will serve as a basis for international collaboration between scientists, farmers and financiers to reduce net greenhouse gas emissions by capturing more carbon into the planet's soils.

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Degradation of soil health has reached 40% globally, according to the Food and Agriculture Organisation (FAO). If carbon was increased in soils by just 0.4% per year, the reduction in carbon dioxide from the atmosphere would correspond to all annual man-made greenhouse gas emissions – hence the name of th 4 per 1000 Initiative, which was launched by the government of France at the 2015 United Nations Climate Change Conference in Paris.

The platform brings together the initiative's project members and partners to speed up knowledge-sharing and best practice, to encourage projects to implement the most efficient science and approaches and to secure funding for successful demonstration projects. The project members and partners include 39 governments, 11 international organisations, 10 foundations and development banks, 62 research and education institutions, 35 farmers' organisations, 36 companies and 88 NGOs.

Stephane Travert, France's minister for agriculture and food, said: "To be efficient and to lead to a true transition towards more sustainable agriculture, many actors have to be mobilised alongside the farmers. The 4 per 1000 Initiative will thus contribute to meeting the goals of the Paris Agreement and the Sustainable Development Goals. It will allow farmers to live well from their work, and contribute to food security."

Why soil projects are so important

Soil: How it can help tackle climate change

• Soil is an important carbon stock – it stores three times as much carbon as the atmosphere.

• If the carbon in soil rose by just 0.4% per year, it would be enough to halt the increase in the CO2 concentration in the atmosphere related to human activities. It could reduce net greenhouse gas emission by 4.76 gigatons.

• 40% of the world's soil is now degraded, reducing agricultural resilience and productivity.

• Boosting soil carbon is relatively easy, through low-tech sustainable agricultural practices. These measur not only help fight climate change, but increase biodiversity and food security.

Soil health: Part of a broader suite of 'natural climate solutions:

• Improving soil health is just one example of natural climate solutions.

• Science is clear that these solutions are essential to keep warming under two degrees and avoid dangerous climate change.

• Taken together, these solutions could deliver a third of the greenhouse gas reductions required by 2030

Using Carbon Markets to Improve Soil Health

• Just 2.5% of total climate finance is currently directed towards a land-use project, including those focuse on soil health.

• Most carbon markets (e.g. the EU or Californian cap-and-trade schemes) have historically not supported soil carbon projects.

Problems included:

• Properly accounting for the carbon benefits of soil projects

• Issues around their long-term feasibility.

• The Nature Conservancy sought to understand the status and prospects for carbon financing of soil carb project development and its ability to make a meaningful contribution to climate change mitigation.

Findings and conclusions:

• Despite a slow start in carbon finance, there are now a handful of soil carbon projects in the voluntary market.

• Technical barriers to soil carbon projects have largely been overcome, and now strategies exist for build soil organic carbon across croplands, grasslands, savannahs and peatlands.

• Markets for soil carbon/health projects are still small, but they offer a low cost-per-tonne of carbon so there's a growing buyer market. They also provide important co-benefits, such as higher agricultural yields and more secure incomes for farmers (particularly in developing countries). Investors, therefore, can maximise not just environmental impact, but also social impact.

Building soil carbon into broader policy frameworks, such as nationally determined contributions (NDCs) strategies will be an important step forward in mainstreaming these projects.

Boosting agricultural yields

In a second phase, starting November, the hub will be opened to millions of farmers around the world, so that they can learn about the best approaches to soil management, which not only boost soil carbon, but al boost agricultural yields.

Dr. Ibrahim Assane Mayaki, former Prime Minister of Niger and CEO of the New Partnership for Africa's Development (NEPAD) Agency said: "To reduce the rate of presence of greenhouse gases in the atmosphere, agriculture and forestry have a unique role to play. Two years since its launch, the 4 per 100 Initiative has developed quickly and achieved international recognition that underscores the imperative to protect soils and nature, which provide vital resources for people. The opening of the Collaborative Platfor is an essential step towards the much-needed scaling up of appropriate practices to store carbon in soils the long run."