Sagri

Company Presentation Dec 2024

“Coexistence between humanity and the Earth”

Sagri

Satellite×AI

Sagri is an impact startup from Gifu University,
addressing food crises and climate change challenges
using satellite data and AI technology.

As a satellite data analysis venture, we were the first in Japan to be selected as a 'J-startup' company by the Ministry of Economy, Trade and Industry in Japan. We are collaborating with governments and large corporations globally.

What We Do

Using satellite data and AI-based technology, we provide a variety of data analysis services related to farmland around the world

Sagri's Vision "Creating Value by Visualizing Farmland"

Satellite Data & Image

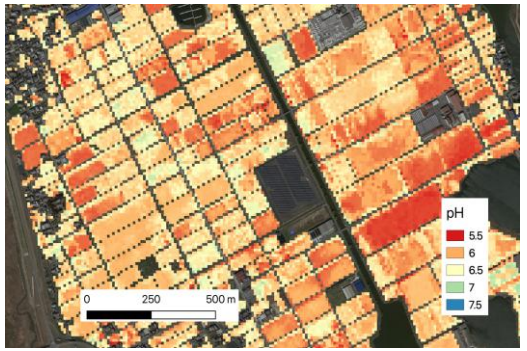
Machine Learning

1 Farmland Polygon Creation

High-resolution satellite imagery is used to inexpensively plot farmland as "AI polygons" through AI-based image processing.

2 Analyzing Chemical Parameter

To analyze satellite wavelength data for soil chemistry (total carbon, total nitrogen, pH, CEC, etc.)



Problem to solve: “Decarbonizing agriculture”

Reducing GHG emissions in a sector that accounts for about 1/4 of global GHG emissions

Emissions from the Forest, Land and Agriculture (FLAG) sector, which includes agriculture, account for about 22% of global GHG emissions. Emissions are also expected to increase in the future as the world's population grows and demand for food increases, making the need for emission reduction measures even greater.

Impact on various industries involved in the supply chain

Companies in the forest and paper products, agricultural production, livestock, food and beverage processing, retail of food and daily necessities, and tobacco sectors are covered by the sector guidance, and many companies have started to calculate their emissions using the amount of raw materials procured and CO2 emission factors.

Difficulty in calculating GHG emissions and carbon removals from agriculture and reduction/removal measures

For companies that procure farm-derived raw materials in order to reflect reduction measures, it is necessary to precisely understand current emissions rather than CO2 emission factors, but the data necessary for calculation is difficult to obtain and analyze.

Sagri: Decarbonization Business

we are launching a service related to carbon credit generation and visualization of GHG emissions from agricultural land in the supply chain

Carbon Credit

Carbon Credit Project Developer

Agriculture Enterprise

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Satellite data analysis, carbon credit application

Carbon Credit Purchaser

Carbon Credit

Cabon Insetting

Agricultural Land in the supply chain

Company with decarbonization demands

Agricultural Products

Visualized GHG emission related data

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Analysis of soil chemistry (Soil organic carbon, N2O etc.), using satellite data

Carbon Credit: Business Model

Generating carbon credits by changing the agricultural practices of farmers in developing countries and selling the credits to buyers in developed countries

Carbon credit project developers

Project Implementer

Farmers' unions, Agricultural enterprises

(i) Determination of farmland,
(ii) Farming guidance to farmers,
(iii) Collection of necessary data

Profit from the sale of credits

Necessary data related to farmland

Farmers

Agricultural practice conversion

Carbon Farming: Fertilizer/tillage management, etc.)
Alternate wetting and drying (AWD) in paddy fields for methane reduction

Credit Project Manager/ Technical Assistant

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(a) Cost and incentive
(b) Satellite data
(c) Profit from the sale of carbon credits

Credit process fee

Data for carbon credit application

(i) Analysis of satellite data on farmland
(ii) Credit application documentation
(iii) Investor sourcing and credit sales

Credit Application

Credit verification

VERRA

Gold Standard for the Global Goals

Carbon credit registry

Investment

Carbon Credits

Project Investors

Broker

Off-taker

Investment in carbon credit projects
Sale and use of procured credits

sales

Use and retire

Marketplace

End Users

Merits to participants and Sagri’s value

Sagri utilizes its satellite data and AI analytics and provides valuable programs to both farmers/farmers’ unions and investors

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Satellite Data x AI Analytics

The key to a project to generate credits from improved agricultural land management is to reduce the cost of soil sample collection and carbon measurement. Sagri's satellite x AI soil diagnostics service enables highly accurate and cheaper soil organic carbon measurement and monitoring.

Full-service support from credit generation to sales to investors

Connecting carbon credit developers and investors to realize the program and handle the complicated credit application process on behalf of the developer.

Farmers

- ✓ Additional source of revenue and increased income
- ✓ Long-term sustainable agriculture on owned farmland

Farmers’ Union, Agriculture enterprises

- ✓ Branding and value-adding as environmentally friendly agricultural products.
- ✓ Transforming business into a more sustainable one

Investors

- ✓ Secure credits as early as possible in response to growing demand for offsets
- ✓ Contribute to raising the income level of farmers in emerging countries

Carbon Insetting: Business Model

Sagri calculates greenhouse gas (GHG) emissions and carbon removals from agriculture and supports reduction and removal activities

Farmland in the supply chain

Clients

Agricultural Products

Carbon Insetting Program provider

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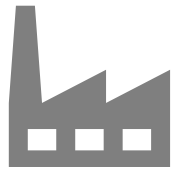
Based on soil chemistry analysis, suppliers can implement programs to reduce GHG emissions (e.g., reduce chemical fertilizers) and increase soil organic carbon.

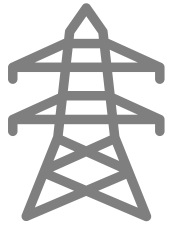
Analysis of soil chemistry (Soil Organic Carbon, Nitrogen etc.), using satellite data and web/mobile application

Market Opportunity

Carbon footprint of large food and beverage manufacturers

8%	4%	88%
Scope 1	**Scope 2**	**Scope 3 (Supply Chain)**
Operation	Purchased energy	Procured inputs (52%) / Transport / Distribution / Disposal





To achieve decarbonization in agriculture sector, we should focus on emission from procured inputs