

0096 - Lead carbon sequestration in ag soils, to improve soil health and reduce greenhouse gas

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Exhibitor



ITK

<https://www.itk.fr/en/>

Team

Patrick Armengaud

Location



Montpellier | France

Summary

Indicator of carbon stock in agricultural soils

In the framework of the KILIMO project, ITK company has implemented its Cropwin model with carbon dynamics indicators. Cropwin is a state of the art Decision Support System to manage farming practices towards environmental efficiency and farm profitability for annual cereals (maize, wheat, soybean).

The KILIMO system is now up and running to support Kenyan farmers and extension services for a more efficient and sustainable agriculture!

The KILIMO project aims at:

- Ending hunger, **ensuring food security**
- Increasing **sustainable and environmental** agricultural maize production
- Facilitating the work of **Kenyan farmers** on their small farms, through technology transfer and skill exchange
- Supporting the development of agro-ecological practices in **maize production**, through satellite observation and agronomic modelling
- Applying climate-smart technologies for agriculture using live carbon monitoring
- The KILIMO project is supported by the **French Ministry of Economy and Finance**, which co-finances the export of French green technologies

Presentation

Earth observation & crop modeling to sustainably support agricultural value chain digitalization

Small scale producers provide livelihoods for more than 2 billion people and produce about 80% of the food in sub-Saharan Africa and Asia (AGRA, 2017). Ranging from exclusive subsistence to commercial income, small holder farmers suffer from poor access to agronomic advices, quality inputs, markets, finance and insurance. Efforts towards increasing productivity through subsidization of fertilizer often failed to generate the expected outcome mainly because of poor traceability and associated support systems hampering scalability and favoring local diversion. Fertilizers are one means for productivity, but their supply and use by farmers must be improved to avoid negative environmental impacts. Increasing agriculture productivity while preserving the environment and optimizing the resources are at stake in Kenya as in many countries' agricultural policies.

Today, knowledge and technology can be combined to build climate-smart and fully scalable projects to promote soil health and agricultural sustainability.

The Kilimo solution, generated by a consortium of French and Kenyan companies (Airbus, ITK, GE-Data and LocateIT), with a proof-of-concept run on Vihiga county in 2020-2021 with the financial support of French Ministry of Economy & Finance, aims at tackling these issues by synergistically connecting geospatial imagery services, soil and crop modelling and digital agriculture management system.

Geospatial live analytics identify and monitor cultivated area on large territories. Agro-environmental models generate live indicators of plot nutrient cycles to rationalize fertilization towards yield and carbon dynamics. Both geospatial and agronomic outputs are combined on one hand, to timely assess acreage and production estimates as well as global input need, and on the other hand, to generate optimal practices and metrics at farmer level for a fully scalable, efficient, and sustainable agriculture management.

Benefits for Kenyan farmers

White maize is a basic staple food in Kenya. It is a vital crop. Public and private actors from the Vihiga county in Kenya are mobilized around this project and involved in:

- Ensuring food and nutrition security
- The fine tuning of agricultural inputs
- Measuring and improving soil health
- Increasing carbon sequestration

Benefits for producers :

- Receiving customised advices
- Traceability of input usage
- Capacity building and skills training
- Dynamic production previsions

Images

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Videos

More

Websites

KILIMO project : Improving soil health to fuel agricultural sustainability. Combining agronomy and ecology to promote soil-conservation agriculture.

Visit our KILIMO project website <https://kilimoproject.itk.fr/fr/>

ITK Company : Predict and Decide : tools for tomorrow's agriculture

Visit our compagny website : <https://www.itk.fr/en/>

Contact details

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Meet the team

During the indicated periods, one of the team members is available for a video chat.

Stand No	Time zone	+/-UTC	Date	Start local time (hh:mm)	Duration (hh:mm)	Attendant	Video chat link
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