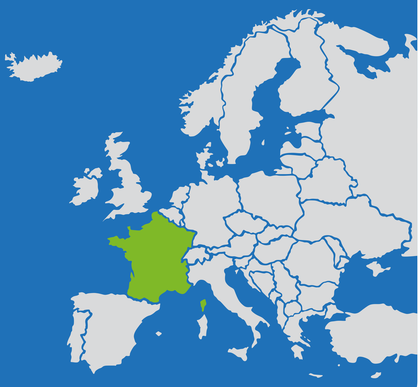
Soil: fertility, biological life and fighting against erosion



AGRI Innovation summit 2019

Operational Group

GO PEI Living Lab Iracoubo

GO PEI Living Lab Iracoubo

Practical problem

Agricultural rehabilitation project to test and validate innovative methods in agro-ecological engineering on the scale of the territory of the French Guyana.

Partners

Leader: Guyane Forest Initiative
Partners: UMR EcoFog (INRA, AgroPArisTech), CIRAD, SOLICAZ, Association des Agriculteurs des Savanes (ADADS), EPFAG, VOLTALIA

Calendar

Start: 01/01/2014
End: 01/01/2029

Budget

Total amount:
€1,800,000

Objectives of the project

The project consists in the promotion and continuation of the ecological transition in the Iracoubo agricultural basin in the French Guyana that covers an area of 3000 ha within the framework of a Living Lab. This project is designed as a multi-function support -technical, scientific, administrative and financial whose purpose is to validate innovative technical agricultural processes based on the principles of agro-ecology and the implementation of agroforestry systems for the farmers of the area.

Main activities

The approach adopted consists in an upscaling in the technology readiness level (TRL) of the proposed innovations through pilot experiments and demonstrations in relevant environment (TRL 5), then simulated-real environment (TRL 6) within the framework of experimental multi-sites systems existing in the French Guyana for other EIP projects. Set-up a network of demonstration plots in operational environment (TRL 7) in the heart of the agricultural basin, supervised by local scientific and technical institutes that will allow the qualification of innovative systems on a 100 ha area (TRL 8) before the implementation of innovative solutions in operational environment at the basin scale (TRL 9).

Expected results

In 2019, in synergy with other EIP projects, the project will achieve a change in spatial scale when implementing in the heart of the Iracoubo basin a network of demonstration plots in operational environment (roughly 100 ha). Along with that a technical advisor specialized in tropical agro-ecology, will ensure a consolidation of technical data and the know-how transfer. Finally, through the coordination capacity of the ADADS with the help of the financing capacity of LEADER it will be possible to ensure the dissemination of knowledge, the promotion of the innovative processes and the validation by 2021 (in partnership with research centers) of these processes in operational environment.

Results so far/first lessons

In 2014, an agricultural rehabilitation project based on agro-forestry systems supporting a supply plan for a biomass power plant (10 MW) has been implemented. The objective was to validate through experimentation the concept of an agricultural rehabilitation project that could take into account the solutions that were identified through an environmental and land assessment that was carried out in the basin. The EIP OG Iracoubo has identified several priorities and answered many questions that were identified by the stakeholders, among which an agro-ecological zoning implemented on 111 ha to be continued on an additional 400 ha.

Who will benefit

On these bases, all the innovative solutions proposed could be implemented in an operational environment at the basin scale (3000 ha) by the future farmers who will receive plots of land within the framework of the rural and agricultural rehabilitation plan in the area supported by the Public land management institution of the French Guyana (EPFAG). Finally, energy recovering through agricultural waste and the culture of energy plants (mainly nitrogen fixing trees or non-woody plants) will strengthen the transition to other sources of energy in this agricultural basin, while securing reliable supplies for the biomass power plant of the Voltalia company.

Supported by:

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