SOLICAZ

2009 Star-up from Scientific Research Centers

Solicaz is an eco-engineering consulting firm that solves ecosystem degradation through bio-inspired approaches.

2016: Certified as Private Research

A Team of Doctors, Engineers, Technicians, Labourers
A cutting-edge Lab in Kourou
A native forest plant nursery in Macouria
A Business Development Identity in Paris
EXPERTISE & SERVICES

- Highly degraded soils restoration
- Chemicals fertilizers use reduction
- Carbon emissions control through soil carbon sequestration
- Climate change mitigation

- Mined-out lands reforestation
- Biomass plantation and management for the RE sector
- Agriculture and Timber industry expertise services
- Land Use expertise services
HIGHLY DEGRADED SOIL RESTORATION PROCESS

SOIL FERTILITY RESTORATION

BIODIVERSITY RESTORATION

SOIL FERTILITY BOOST
Use of nitrogen-fixing plants to regenerate Azote into the soil
Efficient nitrogen-fixing plants come from the symbiosis between particular nitrogen-fixing bacteria and a fungus (mycorrhiza) that enhances nitrogen fixation, and the host plant.
HIGHLY DEGRADED SOIL RESTORATION METHODS

1. Soil Assessment & Analysis
2. Plants Production
3. Plantation
4. Follow up and Control
Phase 1: SOIL ASSESSMENT & ANALYSIS

Legende:
- Yellow: Plantation
- Green: Forest-regeneration
- Purple: regeneration-pluri-stratifiee
- Blue: eau-surface
Creek deviation
PHASE 2 : PLANTS PRODUCTION

1. SEEDS SELECTION FROM ENDEMIC NITROGEN-FIXING PLANTS
2. ULTIMATE SELECTION OF SEEDS AND PREPARATION
3. POTS PREPARATION WITH ADEQUATE SUBSTRATE
4. SOWING and/or CUTTINGS
5. MYCORHIZATION CONTROL
6. NODULE PROCESS
7. GROWTH FOLLOW-UP
8. PLANTS CARE UP TO MATURITY (4-6 months)
PLANTS SELECTION CRITERIA

- heliophilous (look for sun light)
- nitrogen-fixing capacity
- Rapid growth performance

- supply shadow
- build a Nitrogen and Carbon forest litter
- shelter fauna biodiversity

In order to promote the pioneer forestry species to re-appear
PHASE 3: PLANTATION
PHASE 4: FOLLOW-UP & CONTROLS

**Aerial observation** by drones to follow the plantation homogeneity

**Ground observation** to follow fauna biodiversity return
2 years after
PHASE 4 : FOLLOW-UP & CONTROLS

2.5 years after
2.5 years after
Site SMSE Guyane Française

1.5 years after