CONVER

Co-design of a biomass valorisation scenario in a circular economy approach, in Reunion Island

ABSTRACT

CONVER is a participatory research project that aims to reason out i) the conditions for processing urban green waste (UW) and livestock effluents in order to provide organic matter (mulching, amendments and fertilisers) for breeders and farmers and ii) the collective organisation methods that allow for efficient management of material flows.
The approach is part of a circular economy issue, via the recycling of waste and the efficient use of local resources. Ultimately, it aims to reduce Réunion's dependence on imported chemical and organic inputs and to provide the organic components (soil improvers and fertilisers) needed to implement an agro-ecological transition.
The project will be carried out mainly in the commune of St Joseph, where the agricultural (maintaining diversified agriculture), urban (land artificialisation) and environmental (preservation of drinking water resources in relation to the 'off-ground' livestock farms upstream; conservation of natural environments in the central and peripheral zones of the national park, etc.) issues mean that the solutions for the development of the territory are complex.

The project has four parts.
• The first part is the preparatory phase, which is based on a diagnosis.
• Part 2 is the one that will involve all the stakeholders in the design phase. Most of the time will be spent on this, in the first phase of the project, in order to arrive at a shared scenario and define the protocols to be implemented in part 3.
• Component 3 is the experimentation phase, which will be conducted on the farm, with a process development phase (co-composting if selected) and a test phase on market gardening and grassland plots.
• Component 4 will consist of evaluating, on the basis of sustainability criteria (economic, social and environmental), the ex-ante and ex-post situations of the implementation of innovations at the farm and territorial levels.

The CONVER project does not aim to provide a global response on the scale of Reunion Island, but rather to deal with a concrete case study with the stakeholders involved in the project. The geographical scope of the project is limited to the southern part of the island.
Within this perimeter, 3 options are currently being considered to meet these expectations:
• A project for a green waste treatment platform by shredding, in the commune of St Joseph, supported by Ileva
• Treatment by co-composting, on the farm, of green waste and effluents (poultry manure and liquid manure from pig farms).
• The use of composts produced in market gardening and on meadows.

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Flagship project : no

Project leader : Jean-Philippe Choisis
Project leader's institution : INRA-INRAE
Project leader's RU : SELMET

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