

les dossiers **d'AGROPOLIS** INTERNATIONAL

*Expertise of the scientific community
in the Languedoc-Roussillon region*





▲ Turning over green waste compost on Réunion.

GIROVAR Project

participatory modelling for the co-construction and evaluation of scenarios for integrated organic waste management

On Réunion island, the management of a number of growing organic waste dumps (sewage sludge, manure, green waste, food waste) poses serious problems, mainly because of siloing of the various industries, even while these organic materials could be of great service in agriculture. The project Integrated Organic Waste Management through Agricultural Enrichment on Réunion (GIROVAR), being conducted by a consortium of seven partner organizations (co-ordinated by the UPR “Recycling & Risk” in collaboration with the UR “Renewable Resource Management and Environment”) in the conurbation of towns in the west of Réunion, is looking into the service potential of organic waste recycling. A participatory research method is used to identify integrated land management scenarios whereby the potential benefit could be realized, the aim being to make possible all current and planned developments in the various sectors concerned without endangering the regional system’s sustainability. It is essential for the scenarios identified to be rigorously and objectively evaluated from an environmental, logistical, regulatory, economic and social standpoint.

As regards the environmental aspect, territorial ecology research has produced ways of assessing the effect in terms of island-wide eco-efficiency (through a study of the island’s “metabolism”). However, these methods cannot determine what services could emerge or what environmental impacts these scenarios may ultimately have. By coupling the territorial ecology approach with a systemic evaluation framework (“Driver-Pressure-State-Impact-Response”), the environmental



◀ The logic behind the GIROVAR project and its stages.

assessment seeks to produce a spatio-temporal analysis of the changes in environmental impacts that would be generated by the management scenarios being considered, to estimate how great the change of state might be in the various environmental areas (land, air, water...), and to gauge the risk of harm or the likely benefit of these impacts.

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