In order to increase farm manure production in quantity and quality, and to renew soil fertility in an agroecological way, researchers from DAP Asap (Cirad, Cirdes), stakeholders and producers (UPPC-Tuy, INADES) worked together, from 2008 to 2012 on the Fertipartenaires project to design and support the production of manure directly in the field, with low inputs. In 2015, an impact assessment was carried out with the Impresa method. The innovation in manure production is based on:

- Establishing pits in the fields to limit the transport of crop residues;
- Composting cotton stems, usually burnt, with animal faeces, in a mix of 80 percent stems to 20 percent faeces;
- Starting production at the beginning of the rainy season, and harvesting the manure one year later;
- Limiting human intervention during the process (no hashing, no watering, no turning).

The co-design of innovation has led to the acquisition of knowledge in manure production, and changes in manure production and management practices, with visible impacts continuing after the cessation of research. Among farmers who participated in the co-design process, manure production has increased by 7 tonnes per farm; and food security at farm level has been reinforced by a 736 kg/ha increase in maize yields.

教训 learned and recommendations

Partnership formalization among farmers, stakeholders, and researchers, and the pursuit of research in the long term, enables the co-design of innovation, and accompanies the agroecological transition by changing farmers’ practices and producing lasting impacts for the experimenters and beyond, via the networks created.