



# Waste, Added Value

Tilarán, Costa Rica

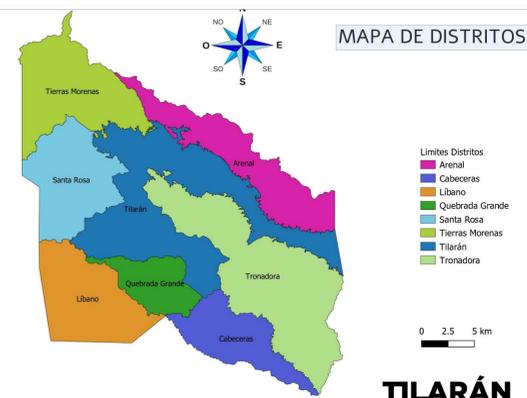
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## Background

- Tilarán is a very environmentally friendly city and the transportation costs for the final disposal of waste were very high.
- Raising awareness among municipal authorities and citizens for separation at the source has been a major challenge.
- Inter-institutional support made it possible to bring together professionals in different areas to make the initiative a reality.

### CITY PROFILE

- 26,000 inhabitants / 638km<sup>2</sup>
- Costa Rica, Guanacaste Province
- 579mts above sea level



## Approach



### What is being done?

- We add value to organic waste by turning it into compost.
- The waste of urban dwellers contributes to rural production.
- Natural decomposition processes with microorganisms give added value to the garbage of many

### What was your starting point?

- The project started in 2020 and materialized in 2023. A pilot plan started in 2020 completely manually, laboratory tests were developed to determine the composition of the compost and it was first marketed in 2021.



## Methodology



- Compost piles are used by turning, using drying material (wood chips from tree pruning), with efficient microorganisms (through an inoculation process). The process takes a month and a half and the plant is designed for nine tons per month.
- The project is led by the environmental management department of the Municipality of Tilarán, with support from the Ministry of Health, ICE Group, CIDECA, FUNDACA, SINAC, and INDER.
- The infrastructure and equipment was financed by INDER and the Municipality of Tilarán.



## Outcomes



### What has been achieved?

- Environmental education has had an impact on the inhabitants of the canton of Tilarán. Decrease of 9 tons of waste going to the treatment plant. Decrease in the rate paid by the inhabitants of the canton for waste collection. Automated processes.

### Next steps

- Collection routes free of organic waste in rural areas. Train other municipalities. Plastic pole plant.
- Professionals from other institutions that contributed to the initiative and a population with a culture of separating from the source.

## Lessons learned

- Although economic resources are limited, inter-institutional support maximizes the money.
- That citizens are aware of environmental processes, but need education and support.
- That the added value of waste is great, but the communities take advantage of it very little.
- It is essential to involve the education sector more in order to maximize environmental education processes.
- The production of organic composting allows to generate an environmental impact and an impact on taxpayers' pockets.
- That the use of mechanical equipment facilitates and speeds up the processes, maximizing time and achieving institutional economy.
- That urban sectors can contribute with their waste, with the production generated in rural areas. Achieving important results in circular economies.
- That these processes contribute enormously to the fulfillment of the objectives of sustainable development.