**Sewage facility with valorization of sludges**

**Expected project CAPEX**: 200'000 €

**Mandating Authority**: San Juan Sacatepéquez Municipality

**Project Type**: Waste water

**Summary**

The project consist of the installation of a sewage system for the waste water with a valorization of the sewage sludges and valorization of plants used for the secondary treatment by local women. The beneficiary population is estimated to 3,714 inhabitants at the moment, but estimated to grow to 6,886 in 2040.

The project includes: The planning/feasibility of the plant and the construction of infrastructures. Currently the plans of the draining system have been elaborated and the construction itself should proceed in the short to the mid-term.

**Location and population**

San Juan Sacatepéquez, Guatemala

238,000 inh.

**Social and environmental impact**

Prevention of human disease; Prevention of surface, phreatic and surface water pollution; Odor control; Production of organic amendments; Production of local textile material; jobs creation for the local population; incomes for sewing women's; Efficient water usage with recycling of water for green or agricultural areas, thus improving food security.

**Main stakeholders**

Municipality de San Juan Sacatepéquez, COCODE, Communauté de Chivoc / Force ouvrière de Chivoc, femmes incluses / Cementos Progreso
**Project maturity (IFC / World Bank Categories)**

STAGE 1: Concept Development, Site identification

STAGE 2: Pre-Feasibility Studies

STAGE 3: Feasibility Studies

STAGE 4: Permitting / Financing / Contracts

STAGE 5: Engineering/Construction/Commercial Operation

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**STAGE 1: Concept Development, Site identification**

*Expected capacity*

Waste water flow of 4.50 lt/sec

*Land identified*

YES, Caserío Asunción Chivoc

*Site access:*

- ✔ Adequate road
- □ Rail access
- □ Port facilities

*Technology:*

Primary: septic treatment; Secondary: Root zone type using nymphes et vetiver/tulle

*Waste water stream data*

Data available for sludge, biomass of: nymphes, tulle / vétiver fibers and waste water.

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**STAGE 2: Pre-Feasibility Studies**

*Pre-feasibility study:*

NO

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**STAGE 3: Feasibility Studies**

*Feasibility study:*

No

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**STAGE 4: Permitting / Financing / Contracts**

*Land concession signed*

NO

*Building permits signed*

NO

*Environmental impact study*

No

*Identified sources of fundings*

Municipality, communities, Cementos Progreso

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**STAGE 5: Engineering/Construction/Commercial Operation**

*Engineering, Procurement and Construction Contractor*

Dedicated local utility

*Operation and Maintenance Contractor*

Dedicated local utility

*Comments*

The chosen technology generate the opportunity to recycle all the residues either for agriculture as water or amendment and for local handicraft providing jobs for local women, thus empowering them and developing entrepreneurship and self esteem. Moreover this project could easily be replicated in the region due to the current lack of sewage infrastructure.