



Centre Francophone
de Recherche Partenariale
sur l'Assainissement,
les Déchets et l'Environnement

Municipal waste valorization in Haiti: how experimentation can be used as advocacy for circular economy

Dr Pascale Martel-Naquin

Director of CEFREPADE

With Dr Joaneson Lacour^{1,2}, Gaston Jean^{1,2,3}, Dr Rémy Bayard^{1,3}

¹ CEFREPADE, INSA Lyon, 9 rue de la physique, F-69621 Villeurbanne cedex, France

² LAQUE Laboratory, Université Quisqueya, Port-au-Prince, Haiti

³ DEEP Laboratory, EA7429, Université de Lyon, INSA Lyon, F-69621 Villeurbanne cedex, France

**6th International Conference
on Sustainable Solid Waste Management
Naxos 2018
13 – 15 June 2018**

COMPOSTING AT CITE SOLEIL

- Will of Athletic Haiti to clean up the neighborhood and create jobs
- No involvement at that time of the city hall (2009 - 2013)
- Able to treat up to 10 tons each day
- Free deposition for the inhabitants of the area, payable collection from private structures
- Difficulty for selling compost, local sales of plastics and cans



HOUSEHOLD WASTE COLLECTION AND VALORIZATION AT GROS-MORNE (ARTIBONITE)

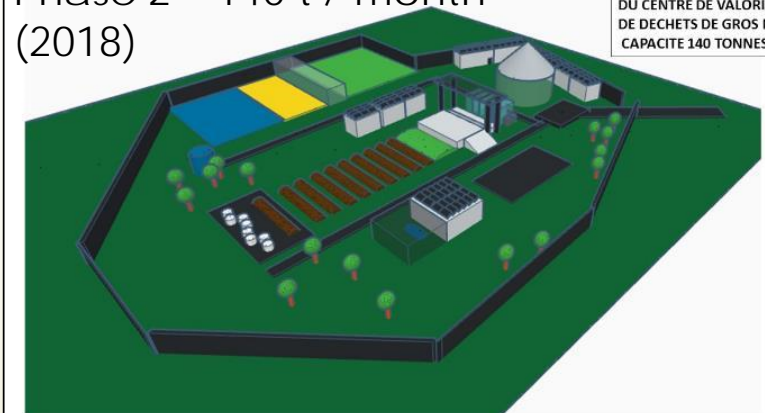
- 30 to 40 000 inhabitants, waste everywhere in the city
- All stakeholders involved (municipality, monitoring committee, local associations, population)
- Experimentation of door to door precollection since 2015
- Valorization :
 - 81% as compost
 - 4% recycled
 - 15% for landfilling



Phase 1 – 35 t / month
(2015)

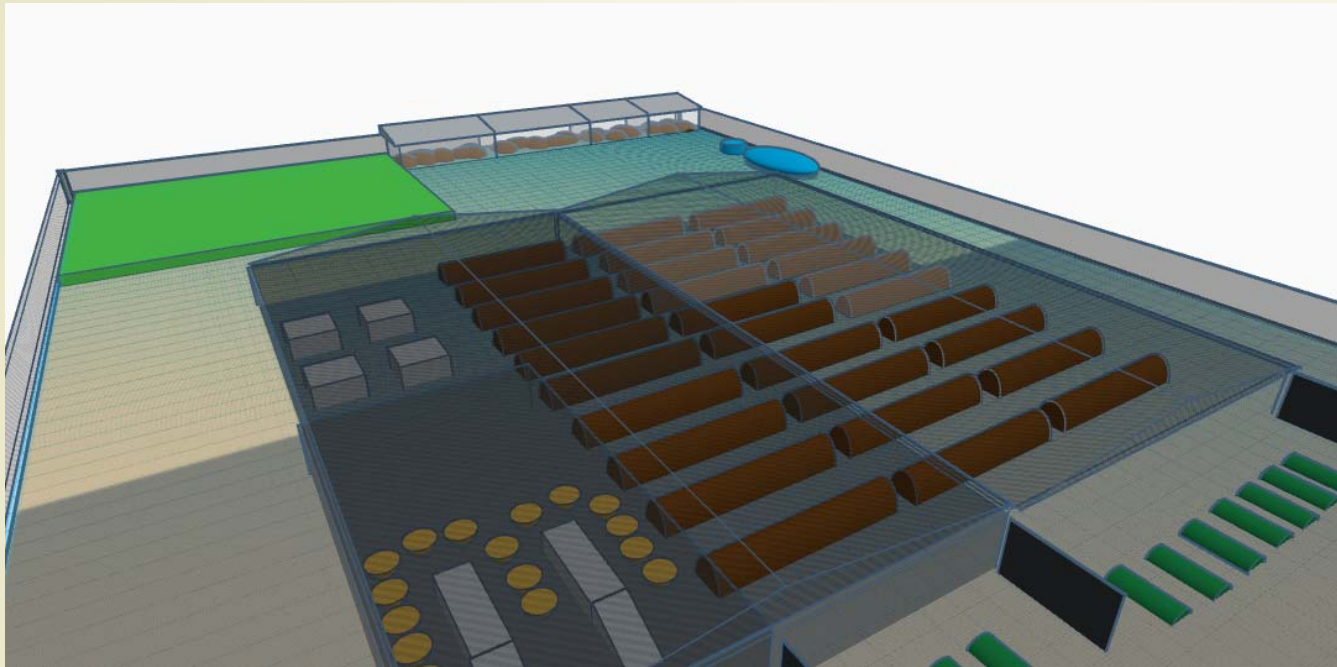


Phase 2 – 140 t / month
(2018)



VUE 3D PLAN PREPARATOIRE
DU CENTRE DE VALORISATION
DE DECHETS DE GROS MORNE
CAPACITE 140 TONNES/MOIS

SORTING AND COMPOSTING CENTER AT LIMONADE



- PILOTE program GIDE to set up waste collection and treatment in Cap Haitien, Limonade and Quartier Morin
- Site of 20 ha made available by the municipality of Limonade for a recovery center and a controlled dump
- CEFREPADE in charge of the design, construction, start-up and monitoring of the **CTC pilot of 5,000 t / year** (market waste and household waste)
- Extensive R & D program with the local University to optimize production and marketing of compost

WHY VALORIZE WASTE ?

To reduce the amount of waste to be landfilled (transport + bulk)

To reduce the nuisance of waste sent to landfill (remaining little biodegradable material, hazardous and electronic waste removed during sorting, waste to be dumped rendered almost inert) and thus lightening the development constraints of landfill sites

To reduce emissions of greenhouse gases and other air pollutants (methane emissions when biodegradation of organic matter in landfill, combustion of plastics if burned)

To save resources, renewable or not: plastic, paper, cardboard, wood, glass, metals, textile fibers (especially interesting when there are local processing industries)

To produce compost, important food for some cultivated soils (reforestation, market gardening, field crops), particularly in Haiti where soils are depleted

To produce energy with dry, non-biodegradable organic material (plastics, textiles, rubber, hair, ...)

To create many jobs and businesses

**HAITI NEEDS COMPOST AND ENERGY
AND COLLAPSES UNDER THE WEIGHT OF THE WASTE :
WE CAN FIND SOLUTIONS TOGETHER !**



Thanks to all the technical and financial partners :

ADEME, AFD, FFEM, UE, Fondation SUEZ, ANR, Plateforme Re-Sources, Athlétique Haïti, AOG, Université Quisqueya, Université de Limoges, Université de Lyon (INSA), ...

Contacts :

Dr Pascale Martel – Naquin : pascale.martel-naquin@cefrepade.org

Tél : 33 12 95 60 (Haïti) ou 00 33 6 13 06 81 40 (France)

CEFREPADE : www.cefrepade.org

Re-Sources Platform: www.plateforme-re-sources.org