Mandating Authority: Commune of Tiznit

Summary
Tiznit City was part of the development experienced by the country in the field of household waste management and assimilated in accordance with the guidelines of the National Plan for Household Waste (PNDM) by launching a promising project for the establishment of a landfill and recycling center (CEV) waste of the city of Tiznit, which answer the technical and environmental requirements by enrolling in the current legal context including the law on environmental impact assessment and the law on waste and exploitation of the center with minimal impact on the environment at local, provincial and global.

Location and population
Tiznit, Morocco
74,699 inh.

Social and environmental impact
* Environmental protection (removal, treatment and valorization of waste in compliance with standards and regulations).
* Job creation.
* Improving the attractiveness of the city.

Main stakeholders
* Commune of Tiznit (Province of Tiznit);
* Commune of Aglou (Province of Tiznit);
* Minister of the Environment;
* Japanese International Cooperation Agency (JICA).

Mandate Letter

FMDV, the International Alliance dedicated to support Local Governments to sustainably finance their urban development, is committed to taking concrete action and to be an active partner in working to deliver the climate objectives committed to by the 175 signatory nations of the Paris Agreement. Low carbon, climate resilient and sustainable development is amongst the very highest of our priorities. For these reasons, we hereby adhere to the R20 Charter and we confirm that we share the values and objectives that this document describes.

We welcome R20’s initiative to work alongside government, industry and investors in accelerating the emergence of low carbon climate resilient infrastructure projects. We hereby mandate R20 to explore opportunities for the development of such projects within our partners cities and regions. Through that call we received more than 45 projects from Latin America, Asia, Africa and Middle East.

We confirm that these projects, and any projects that we may subsequently identify in reference to this mandate, are part of our sustainability strategy and contribute to the intended nationally determined contribution (NDC). In support of the mandate conferred by this letter, we hereby commit to work as an active partner alongside R20 and its partners in the design, financing and implementation of these projects.

Yours sincerely,

Habeau Jean-François
Executive Director

R20 Secretariat
48, Chemin du Grand Montfleury
1295, Versoix, Geneva
Switzerland
Paris, September 2nd
Amount of waste generated
24492 ton/year

Amount of waste currently collected
21718 ton/year

Waste type
Organic 69%  Plastic 9%  Paper 17%
Metal 1%  Glass 2%

Current recycling rate : 7%
Existing waste management plan : Yes
Final disposal today : Landfill

Comments
* The center Landfill recovery of household waste, pursuant to the provisions scheme provincial director of household waste management, is intended to accommodate the waste from all municipalities within the province of Tiznit.
* Statistics provided in this form only concern the Commune of Tiznit.
* The investment and operating costs will be known after the declaration of the provisional contractor, according to the results of the analysis of all the technical and financial offers.

<table>
<thead>
<tr>
<th>Infrastructure</th>
<th>Stage</th>
<th>Short description</th>
<th>Expected Capex</th>
<th>Expected Capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improving collection</td>
<td>---</td>
<td>The collection is done every day by the human resources and common materials with a coverage rate of 96%</td>
<td>--</td>
<td>63t/day</td>
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<tr>
<td>Transfer stations</td>
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<td>8.82t/day</td>
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<tr>
<td>Sorting Centre</td>
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<td>*Implementation of sorting lines for separating household waste stream by taking into account considered valorizations and that will be in place. *Integration and supervision of rag pickers that will be identified on the basis of the diagnosis of informal activities deployed at the site of the discharge Tiznit (40 rag pickers).</td>
<td>DHS 5 Millions</td>
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<td>Composting facilities</td>
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<td>*Establishment of composting module of the fraction 0/80 extracted from trommels which includes: - A method of fermentation (either by fermentation tunnels totally enclosed with automatic watering and ventilation or windrows in closed building with treatment foul air). - A method for the aging of the product. - A refining chain to enable a good quality of compost cleaned of impurities - Then a compost storage area for 1 month (time required for analysis and quality audit) before its sale.</td>
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<td>Recyclables processing facilities</td>
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<td>Establishment of a fuel production plant from household waste that could be adapted to cement or lime production factories or power plants. The production line of alternative derived fuel will be made from the fraction with high calorific value (paper, cardboard, plastic ..) extracted from household waste.</td>
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<td>Waste to Energy facilities</td>
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<td>Establishment of a withdrawal process of Biogas, its treatment and recovery: - The destruction or valorization of biogas will be conducted under the clean development mechanism (CDM). - Installation of a system for producing electrical energy. - The energy produced will be used for own consumption of the CEV and the excess will be injected into the network of public lighting according to possibility.</td>
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<td>Sanitary landfill</td>
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<td>The landfill area is made up of several racks of sufficient capacity to contract period. Each rack must be fitted by alveoli, hydraulically separated from one another. - The racks will be equipped to receive the seal geomembrane HDPE (DEG) 2mm Asqual certified or equivalent. - Establishment of a treatment plant for lixiviat.</td>
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