



Mashhad

Average capita waste production for each person in our country is **more than 600 grams** per day.

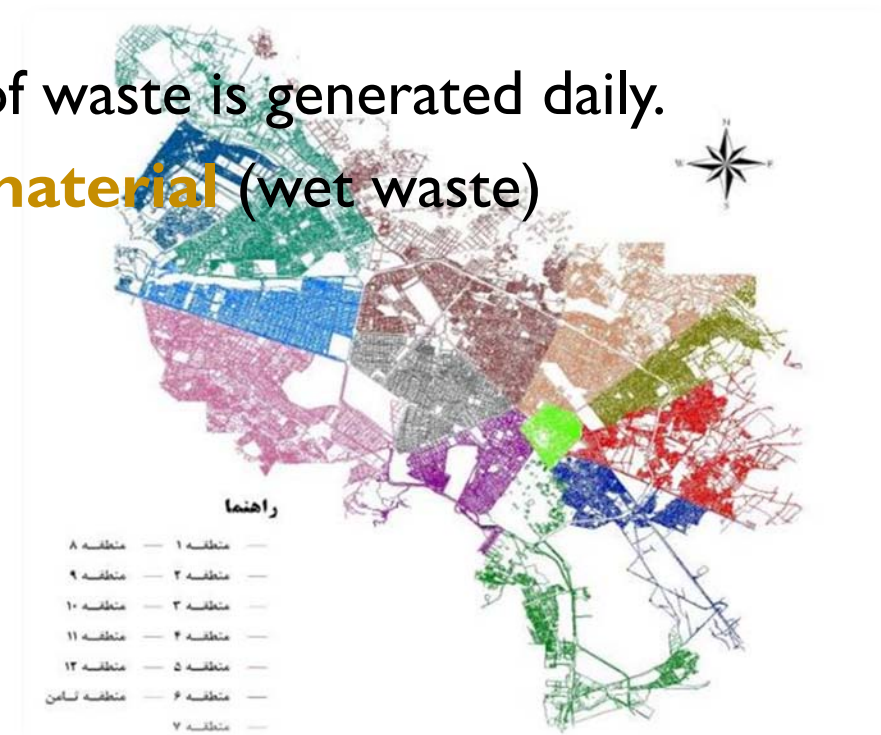
Mashhad has a population of 2.700.000.

Its a pilgrimage and tourist city with more than 20 million visitors annually.

More than 1800 tons of waste is generated daily.

60 to 70 % is organic material (wet waste)

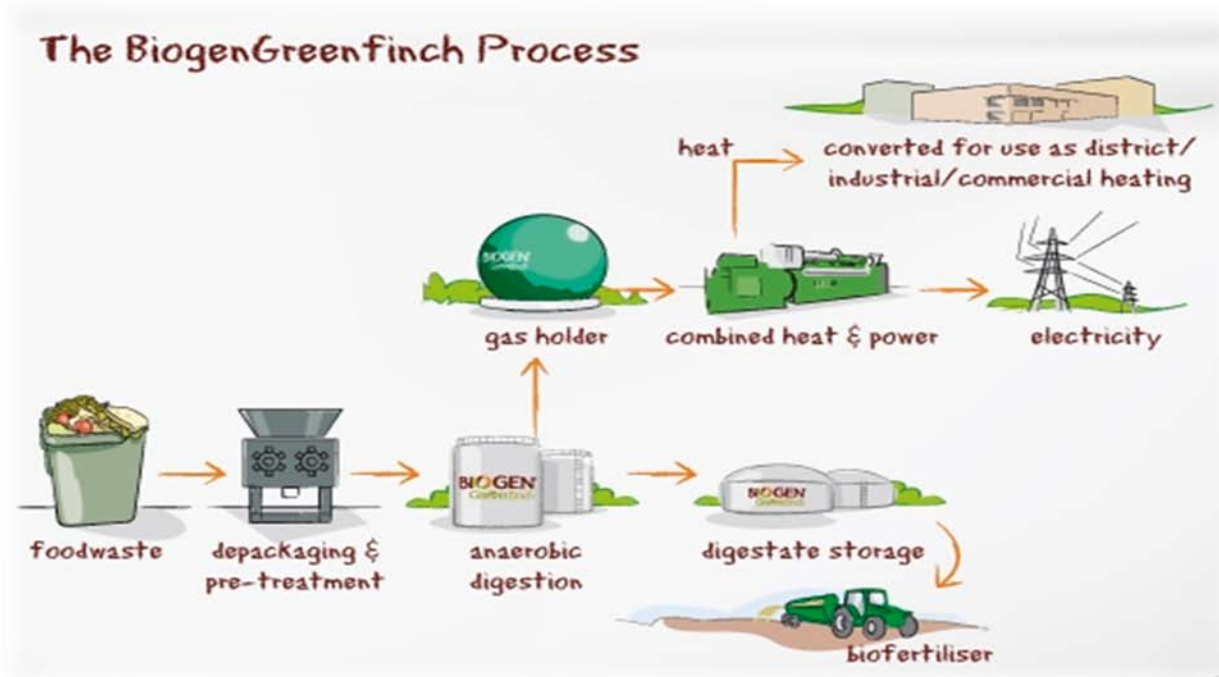
30 to 40% is dry waste



DESCRIPTION OF THE PROPOSED PROJECT

Summary

The Anaerobic Digester System (AD), is used in organic waste management and converting them to energy and manure. In many developed countries, it is a suitable method for conversion of urban solid waste and Biogas production (with 45% methane) in order to extract energy and high quality manure.





INFORMATION ABOUT THE LOCAL AUTHORITY

Population of the Territory	2760573
Surface Area of the Territory	270 km ²
Spending (investment):	
Current: 26,318,259 US \$	Constructive : 486,038 US \$
Revenue: 26,804,297 US \$	



OBJECTIVES OF THE PROJECT (GENERAL OBJECTIVE):

Waste materials reduction and environmental preservation

Beneficiaries of the project

- I. Environmental preservation.
- II. Reduction of greenhouse gases emission.
- III. Optimized usage of the resources and reduction of the disposed waste rate.
- IV. Reduction of maintenance, clearance, and disposal costs.
- V. Reduction the risk of surface water pollution.
- VI. Reduction of unpleasant odor in the environment.
- VII. Income for the Organization through energy extraction and high-grade manure.

Project phases

- A. Comprehensive feasibility study with the help of FMDV.
- B. Financial partnership and investment
- C. Implementation and Operation of the project based on the foreign investor's financial power





VIABILITY OF THE PROJECT

1- Details on the technical, organisational, environmental, financial (or profitability), political, social, and cultural viability of the project

Production of urban waste and also need of electricity energy and manure will not decrease in the future years, in fact it will increase. Therefore, this project is assessed as a sustainable project.

2- Evaluate the expenses generated by the project; it might be worth specifying the operating costs of the project and the maintenance costs

The current sale price for electricity : 1 kilowatt / hour = 1230 Rials

FAILURE (10 cents)

The average amount of garbage production in Mashhad:

- 1800 tones per day → (650,000 tons/year)
- 1 ton of waste=192 m³ of biogas →(75,000,000 m³/year)

3- Evaluate the self-funding capacities of the project leader and/or of the beneficiaries





BUDGET AND AMOUNT OF THE PROJECT

Total cost of the project:

It will be based on the technology suggested by the foreign investor

Co-funding sought:

At least 60%

Amount of project leader local authority's own funds:

Maximum 40%



REQUEST TO THE FMDV

Identify the support desired from the FMDV (multiple choices possible)

- I. Technical expertise
- II. Financial expertise
- III. Institutional support and capacity building

Need help

