

Feasibility Study for the Treatment of Poultry Waste in Lebanon

EDESSA was retained by the Office of the Prime Minister to conduct a feasibility study of the treatment of poultry waste in Lebanon. The work included the assessment and geographical distribution of the chicken population in Lebanon by type (layers, broilers and parents) and information on the way chicken litter is currently handled and treated.

From these numbers, the amount of chicken litter was estimated in order to derive the amount of compost and electricity that could be generated in the event that anaerobic digestion is adopted as the treatment method.

Data was collected from governmental and non-governmental institutions. Meetings with the main chicken suppliers in Lebanon - who control over 80% of the Lebanese market - were conducted in order to obtain specific information on their operations.

A financial model was developed in order to allow the analysis of a number of scenarios based on various series of assumptions. The model allows the evaluation of the following parameters:

- Yearly capacity of the plant
- Capital Cost of the Plant (including design and supervision)
- Land acquisition Cost
- Amount of Grant if any that does not need to be recovered
- Operating Cost as a percentage of the Capital Cost
- Interest rate
- Inflation
- Income from the sale of electricity
- Income from the sale of compost
- Payback of the investment less any grant
- Total payback period
- Internal Rate of Return (IRR)

