

O 30. KONYA SYNERGY IN THE FIELD OF COMPOST AND BIOGAS PLANTS

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ABSTRACT: Storage of livestock waste on inappropriate conditions; creating visual pollution and various gases resulting from waste stack affect the air quality of the region negatively. Uncontrolled landfilling of waste threatens human and environmental health, as it destroys both the soil and groundwater since it destroys the biological structure of the soil. It is necessary to get rid of the contradiction of evaluating organic waste, important source of energy and fertilizer, when environmental problems caused by organic waste and external dependence on energy and chemical fertilizer are taken into consideration. Energy can be obtained from organic waste which is renewable energy source for protection of environmental pollution and at the same time the fertilizer, product of compost or biogas plants, can be recycled to soil as nutrient element source which is very necessary for plants by evaluating organic wastes in compost or biogas plants. The assessment of organic waste is an environmentalist, social and economic project that brings together strategic approach. Global warming requires that the energy used today must be "Renewable and Sustainable". Turning towards renewable energy sources is of great importance in terms of national, political and economic interests. Nowadays energy is the one of the most expensive inputs in production. Energy generation from waste emerges as an economical and environmental-friendly method when depleted conventional energy resource, rising energy prices and recycling and recovery of waste are taken into consideration. This study will contribute to the establishment of plants which will produce 430,800 tons of pellet organic fertilizer per annum, 234 GWh electrical energy in low efficiency scenario and 514 GWh electrical energy in high efficiency scenario in biogas plants in Konya which have significant organic waste potential.

Keywords: Sustainability, biogas, renewable energy, organic waste, organic fertilizer