Project

Study of the sustainable use of sewage sludge in Egypt

The study aimed at assessing the feasibility of anaerobic sewage sludge treatment, the generation of renewable energy from the produced biogas as well as the use of the treated sewage sludge as an agricultural fertilizer. The study indicated the best solution to be the use of solar energy to dewater the sewage sludge; the subsequent composting of the sludge; the use of the composted sewage sludge for agricultural purposes; and the parallel generation of solar power via a photovoltaic system. This concept shall be realized in the framework of a pilot project at the wastewater treatment plant (WWTP) in Beni Suef. The pilot experiences shall then serve as a basis for a potential replication of the concept throughout Egypt.

Our services

- Technical assessment of the digestion and composting process for the sewage sludge and the drafting of a conceptual design for a pilot facility at WWTP Beni Suef (400'000 PE)
- Analysis of the project's net environmental impact, especially with respect to the reduction of the greenhouse gas emissions and the agricultural use of the treated sewage sludge as fertilizer
- Presentation of sustainable financing options for sewage sludge treatment and the subsequent use of the treated sludge in the agriculture as per the circular-economy concept
- Business analysis of the wastewater company in Beni Suef

Client

State Secretariat for Economic Affairs (SECO)

Facts

Period	2020 - 2021
Project Country	Egypt

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and proposal of corporate-development measures
— Drafting of an overview of the legal and regulatory framework
— Assessment of the pilot project's scalability at a national level
— Ascertainment of the potential for public-private partnerships

Picture: Biogas plant for the treatment of sewage sludge in Kafr El Sheikh, Egypt