CASE STUDY DESCRIPTION

Institute name: University of KwaZulu-Natal
Unit of relevance: Sub-course 2 (Unit 2.1 – Characterisation of Faecal Sludge)

Link to video:
https://youtu.be/GtCx5Nyu7-I

TITLE: **Case Study on Faecal Sludge Sampling and Characterisation** (South Africa)
DURATION: 20:21 minutes
PROBLEM STATEMENT: One of the critical steps in designing faecal sludge (FS) treatment technologies that will meet defined treatment objectives is to quantify and characterise the FS to be treated. Ideally, this should be carried out as part of the Feasibility Study, but is however difficult due to the lack of standardised methodologies for the quantification or characterisation of FS. This complicates the design of adequate and appropriate systems.
DESCRIPTION: This is a case study on the field sampling and laboratory characterization of faecal sludge from on-site sanitation facilities in Durban, South Africa. The case study is divided into two parts as follows: - The first part covers the different on-site sanitation facilities within the eThekwini Municipality and the sampling procedures for research purposes, developed by the pollution Research Group at the University of KwaZulu-Natal. - The second part describes the laboratory work and procedures for analysis of the collected FS samples. These include the administrative work on delivery prior to testing, storage of the samples, the standard methods for analyses, disposal of waste, health and waste procedures along the entire process and data interpretation of the experimental results.
PRESENTATION STYLE: The video is based on slides and interviews to describe the sampling and characterisation FS and includes footage from the field and from the labs.
TAKE HOME MESSAGES: - Further understanding of how to improve on-site sanitation systems and therefore improve this service can be obtained from knowledge on sludge characterisation and variations. Consistent sampling is essential for the comparability and validity of the results. - During the lab analysis of FS, the importance of having risk assessment, health and safety, and standard methods and procedures for each step of the characterisation process must be in place.