Questionnaire

Evaluation of conceptual model and predictors of faecal sludge dewatering performance in Senegal and Tanzania

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Questions for Delvic observer

1. What is the origin/source of the faecal sludge? (If truck contains sludge from multiple sources, select all that apply)
   - Household
   - School
   - Factory
   - Office building (includes municipal offices)
   - Hotel
   - Restaurant
   - Church
   - Public toilet
   - Other (specify): ________________________________________

2. Describe the onsite collection and storage system:
   2.1 How would you classify this system?
      - Septic tank
      - Cesspit
      - Pit latrine
      - Other (specify):____________________________________

   2.2 Describe the system's lining:
      - Fully lined (watertight)
      - Partially lined (water permeable)
      - Unlined
      - 2.2.1. If fully or partially lined, what material is the lining made of?
        - Concrete
        - Fiberglass
        - PVC or plastic
        - Brick
        - Stone
        - Cinderblocks
        - Wood
        - Other (specify):_________________________________

   2.3 Does the system drain liquid effluent out of the tank?
      - Yes
      - No
      - 2.3.1 If Yes, where does the tank drain to?
        - Sewer
        - Leach pit
        - Open drain
        - Other (specify):

   2.4 Does the system have multiple chambers?
      - Yes
      - No
      - 2.4.1 If Yes, how many chambers?
        - 2
        - More than 2

2.5 Provide as much detail about the containment system as possible:
   _______________________________________________________
   _______________________________________________________
3. In your opinion, do you think that the answers to the survey questions given by the customer and truck driver are correct?

☐ Yes
☐ No

If No, why not?

__________________________________________________________________
__________________________________________________________________
__________________________________________________________________

Questions to customers of emptying services

1. Describe toilet users (select appropriate questions for facility type)

   1.1 Household
       ☐ How many inhabitants in household? _____________
       ☐ How many inhabitants leave the household during the day (e.g. for work or school)? _____________

   1.2 School
       ☐ How many students and staff? ______________
       ☐ How many days per week is the school open? __________

   1.3 Factory
       ☐ How many employees? ______________
       ☐ How many days per week is the factory open? __________

   1.4 Office building
       ☐ How many workers? __________
       ☐ How many days per week is the office open? __________

   1.5 Hotel
       ☐ How many guests per week? _________

   1.6 Restaurant
       ☐ How many customers per day? _______
       ☐ How many staff? __________
       ☐ How many days a week is the restaurant open? __________

   1.7 Church
       ☐ How many people attend services per week? ________
       ☐ How many days per week are services held? __________

   1.8 Public toilet
       ☐ How many users per day? _____________
       ☐ How many users per week? ___________
       ☐ What are the hours of operation? __________
       ☐ What is the cost for use? ____________
       ☐ Are there showers? ____________

   1.9 Other (specify): __________
       ☐ How many users per day? __________

2. Describe toilets and use of the toilets

   2.1 How would you classify this containment system?
       ☐ Septic tank
       ☐ Cesspit
       ☐ Pit latrine
       ☐ Other (specify): __________________________

   2.2 How many toilets feed into this containment system? __________

   2.3 What type of toilet(s) feed into this containment system? (select all that apply)
       ☐ Flush toilet
☐ Pour-flush toilet
☐ Dry toilet
☐ Urine-diverting toilet

2.4 What type of anal cleansing material is used? (select all that apply)
☐ Toilet paper
☐ Water
☐ Other (specify): __________

2.4.1 Are cleansing materials disposed of into the toilet?
☐ Yes
☐ No

2.5 What types of wastewater enter the containment system? (select all that apply)
☐ Flush water
☐ Bathing/washing water
☐ Kitchen water
☐ Other (specify): __________

2.5.1 Do you have a piped water connection?
☐ Yes
☐ No

2.5.2 If Yes, is your water connection shared (e.g. between multiple households or businesses)?
☐ Yes
☐ No

2.6 Does solid waste enter the faecal sludge containment system?
☐ Yes
☐ No

2.6.1 If Yes, what types of waste? (select all that apply)
☐ Hygiene products
☐ Food waste
☐ Other (specify): __________

3. Describe your containment system

3.1 How old is your containment system?
☐ Less than 1-year old
☐ 1-5 years old
☐ 5-10 years old
☐ More than 10 years old
☐ I don’t know

Specify exact age (in years) if known: ______________

3.2 How long has it been since the last time your system was emptied?
☐ System has never been emptied before
☐ Less than 1 year
☐ 1 - 3 years
☐ More than 5 years
☐ I don’t know

Specify exact time (in years) if known: ______________

3.3 What is the volume of your containment system? __________

3.4 Who constructed your containment system?
☐ I hired a professional to construct my containment system
☐ I constructed my containment system myself or with the help of family/friends
Questions to providers of collection and transport services

1. What is the volume of your truck?
   - Yes
   - No

2. Is the truck completely full following the emptying event?
   - Yes
   - No

   2.1 If No, how full is the truck?
      - Less than half full
      - More than half full

3. Was your truck partially full before emptying this system?
   - Yes
   - No

   3.1 If Yes, how full was the truck?
      - Less than half full
      - More than half full

4. Was the customer’s onsite faecal sludge containment system fully emptied?
   - Yes
   - No

5. Did you add any water to the onsite faecal sludge containment system before emptying?
   - Yes
   - No

   5.1 If Yes, how much? ________________

6. Describe the onsite collection and storage system:
   6.1 How would you classify this system?
      - Septic tank
      - Cesspit
      - Pit latrine
      - Other (specify): _________________________________

   6.2 Does this user always call you to empty his system?
      - Yes
      - No

   6.2.1 If Yes, how long has it been since the last time you emptied it?
      - Less than 1 year
      - 1-3 years
      - More than 5 years
      - I don’t know

6.3 What types of difficulties have you encountered when emptying this containment system?
   - the system is full of solid waste
   - the sludge is compact
   - Other (specify): ____________

   6.3.1 Where does the tank drain to?
      - Sewer
      - Leach pit
      - Open drain
      - Other (specify): _________________________________

6.4 Does the system have multiple chambers?
☐ Yes
☐ No

6.4.1 If Yes, how many chambers?
☐ 2
☐ More than 2