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# Zaatari Camp Wastewater Assessment

29th December 2013

# Introduction

- As part of the UNICEF-REACH agreement, REACH were asked to create an assessment of **wastewater produced at the household level**, including: the sources/type of wastewater; the methods of wastewater discharge; and the location of wastewater storages at the household level.
- In this assessment 'wastewater' refers to both black and grey water.
- It should be noted that ALL such examples of wastewater production and disposal at the household level are informal and unregulated.

# Introduction

- Field work: 21.09 – 11.12.2013
- OpenDataKit (ODK) questionnaire to collect information
- Satellite image and field visit to get household boundaries and location of wastewater storage and pipe connections

## Outputs:

- Presentation
- Set of maps
- Narrative report





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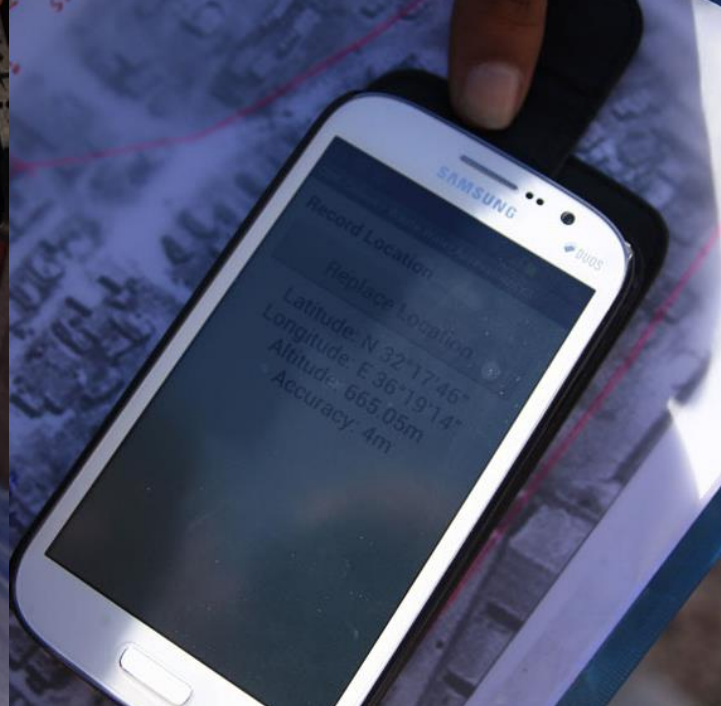
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# Questions asked

- **Is there a source of wastewater?** (yes/no)

- **What type of wastewater source:**

Private Sink for washing clothes

Private Sink for washing vegetables

Washing machine

Private Shower

Private toilet

Other (Specify)

Grey water

Black water

- **Where does the waste water flow to?**

Pit

Plastic tank

Oil/petrol barrel

Surface run off

Tank of WASH facility

Other

Wastewater storage  
in household

- **How many wastewater storages are in household?**

# Questions asked

- **Sharing wastewater storage with other household? (yes/no) How many?**
- **How does the water flow through? (pipe/ditch)**
- **Do you have private water storage? (yes/no) How many?**
- **How many people are in this household?**

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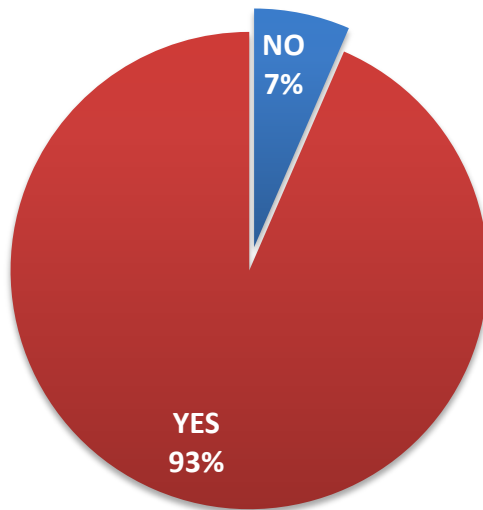
# Key Findings



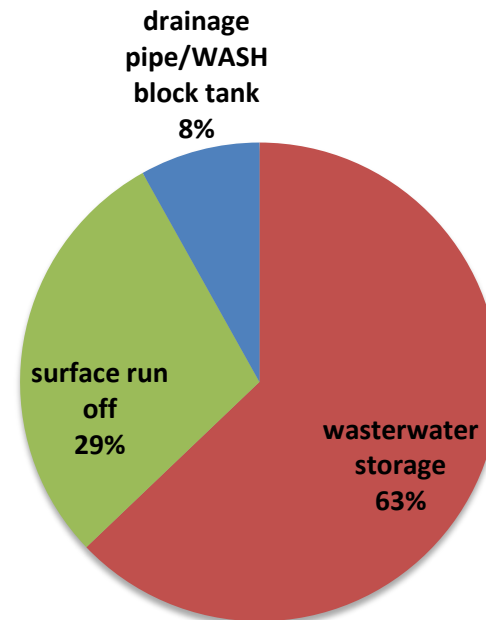
# Key findings

- **9 695 households** with reported wastewater source
- **8 645 unofficial wastewater storages** in the camp
- **71 074 people** live in household produce wastewater source

Households with/without  
wastewater source



Methods of wastewater disposal in  
households with wastewater source

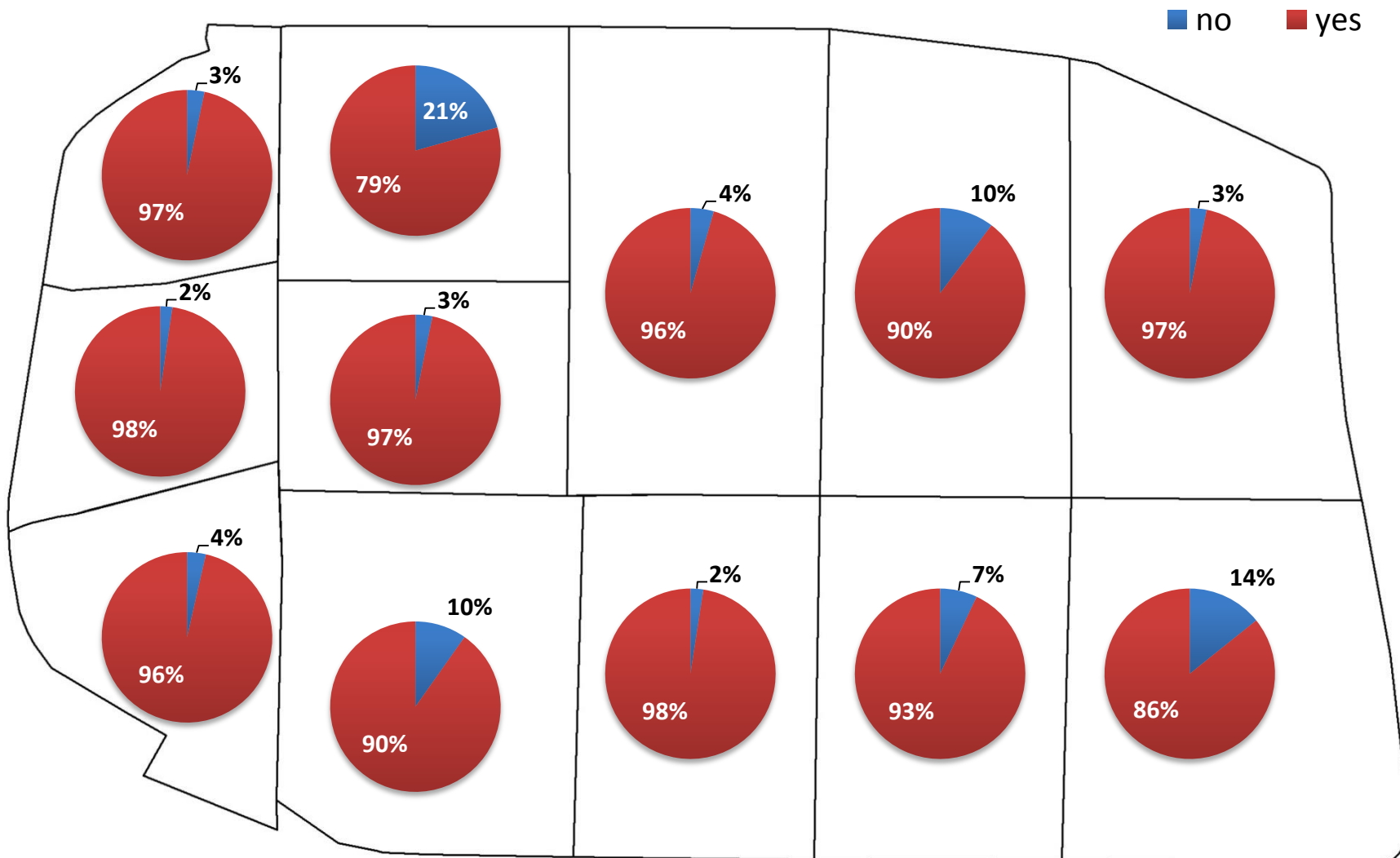


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# Wastewater Sources

# Source of wastewater in households

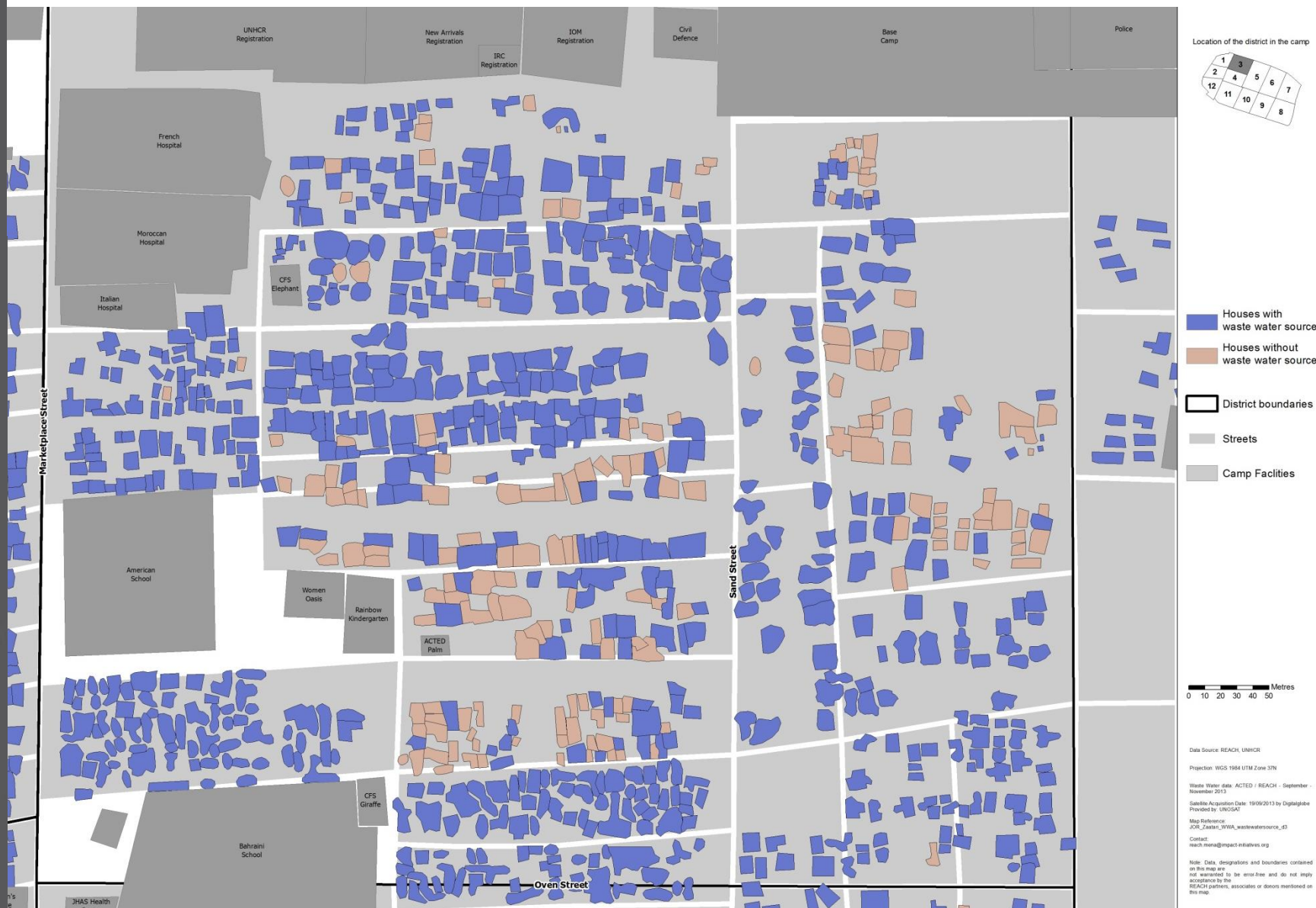


# Source of wastewater in households: District 2





# Source of wastewater in households: District 3



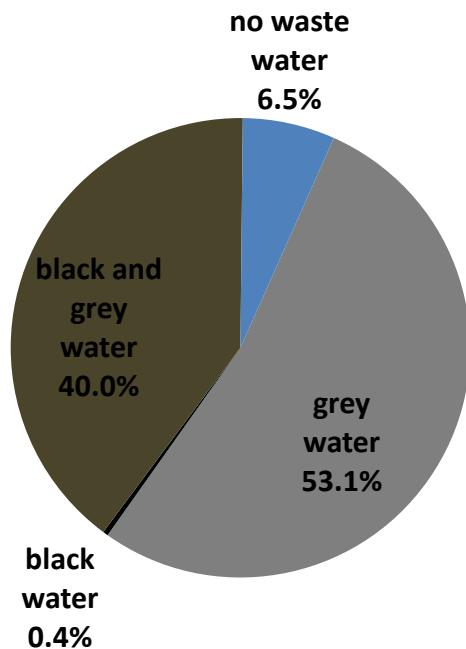
# Types of wastewater

## Grey water:

- Private sink for washing clothes
- Private sink for washing vegetables
- Washing machine
- Private shower

## Black water:

- Private toilet



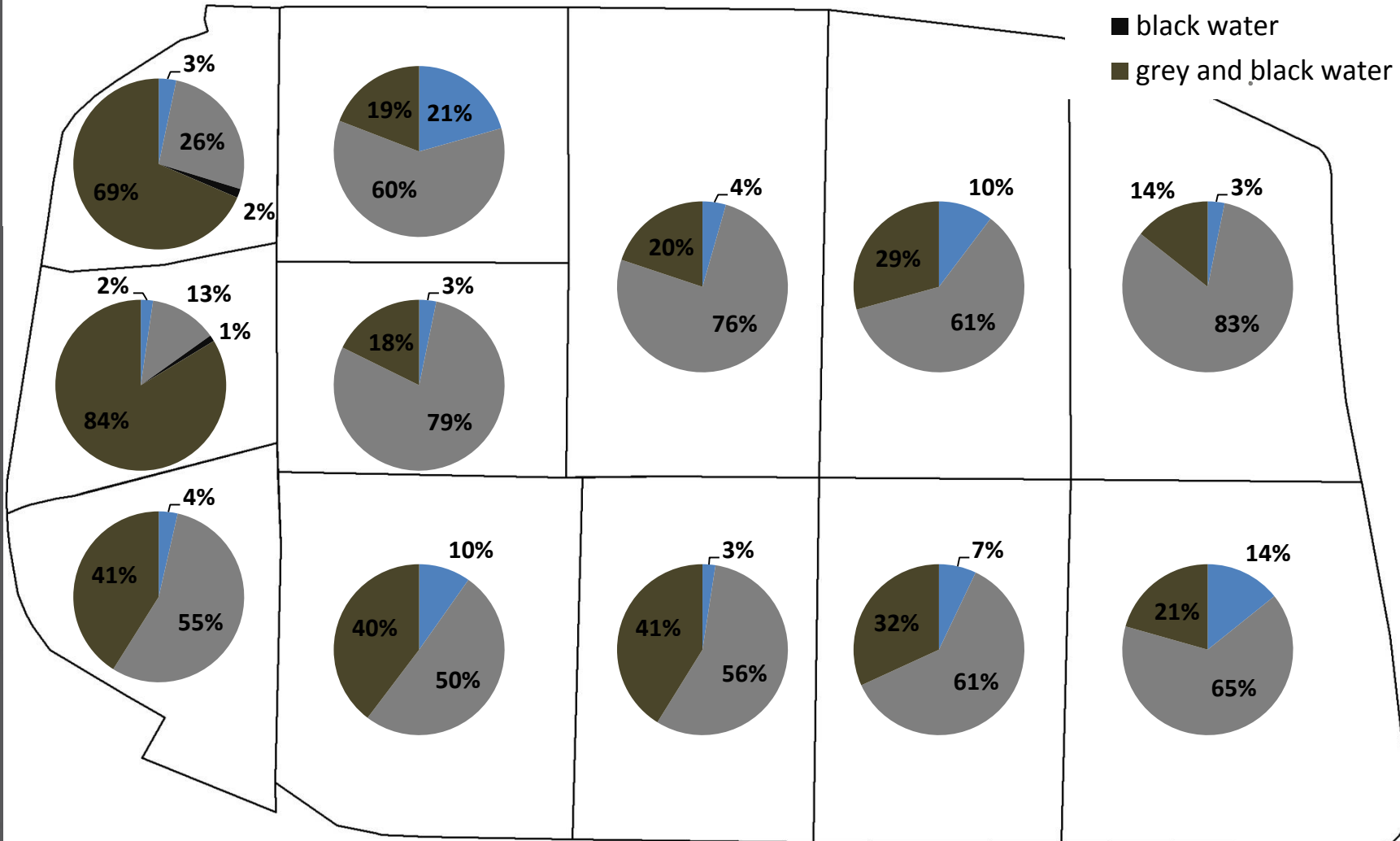
**40,4% households in the camp has source of black wastewater (private toilet).**

It means that:

- 33 200 people in 4184 households use private toilets
- 5137 unofficial wastewater storages at the household level possibly contain black water (59% of all wastewater storages in households)

# Types of wastewater in households

- no waste water
- grey water
- black water
- grey and black water





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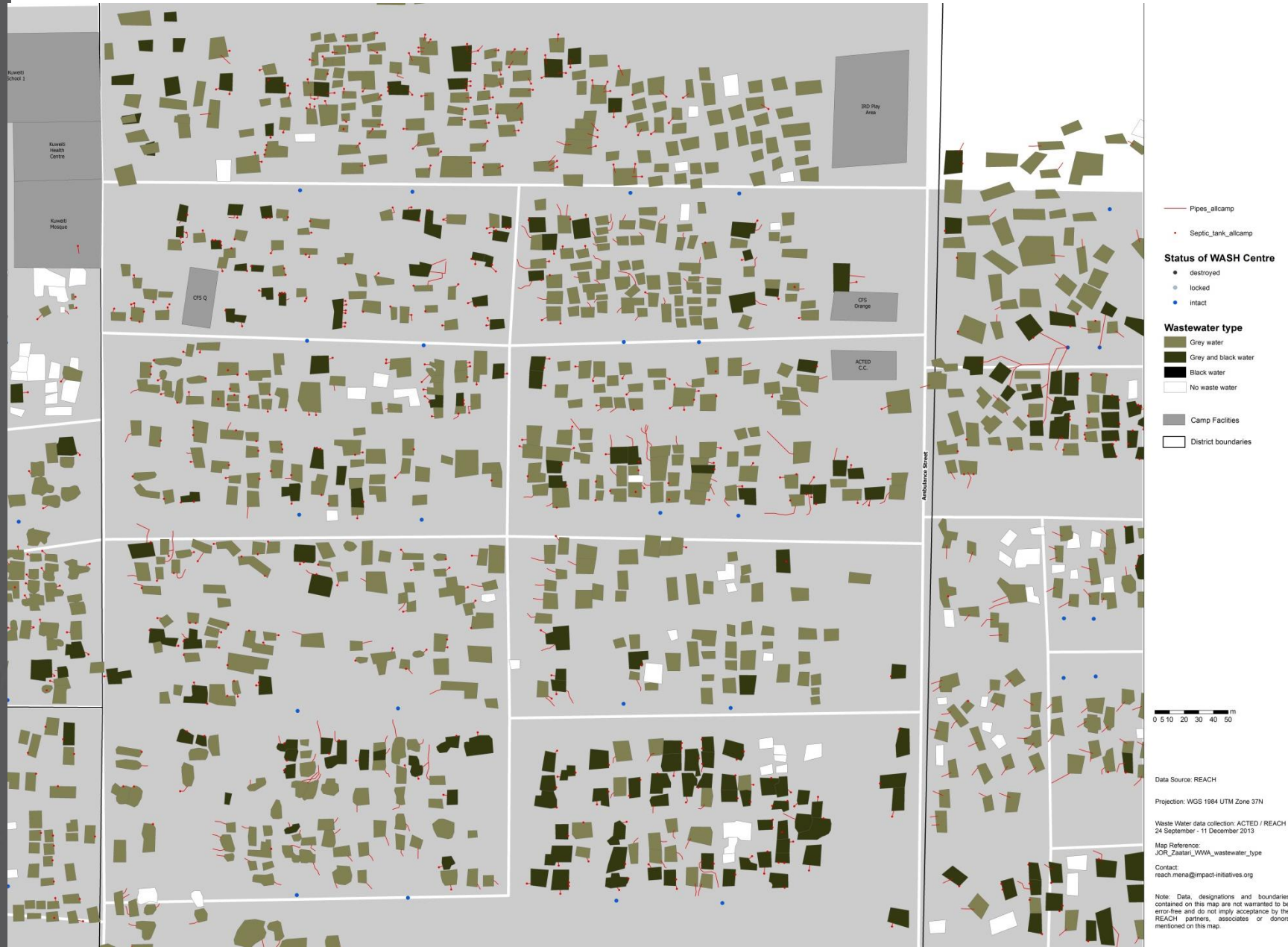
## Grey and black wastewater in households: District 2

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# Grey and black wastewater in households: District 5



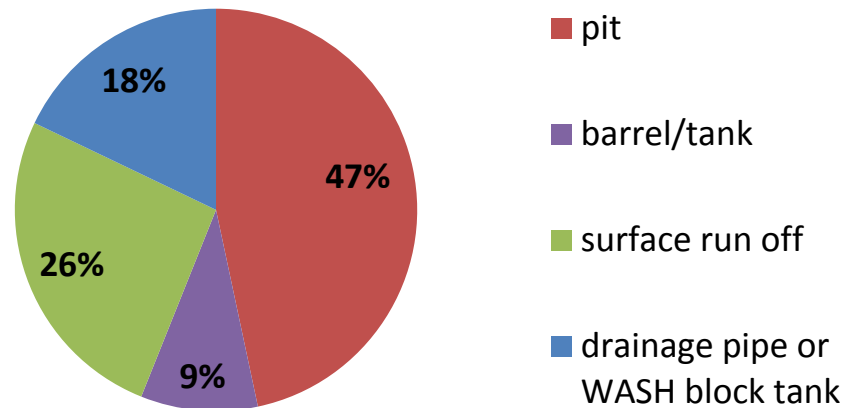
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# Wastewater Disposal Methods

# Types of wastewater disposal

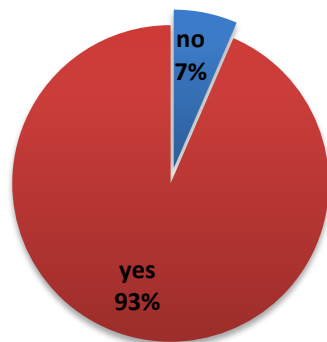
- ☐ Storage at household level (pit, barrel, tank)
- ☐ Surface run off (ditch or throwing on the ground)
- ☐ Connection to drainage network or tank of WASH block





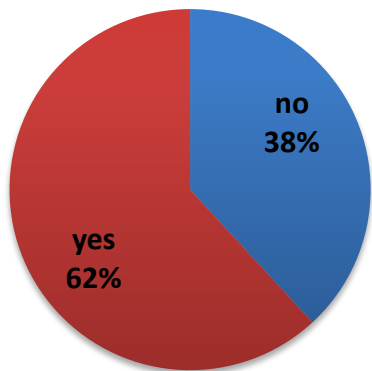
# Wastewater storage at households

Is there wastewater produce at the household?

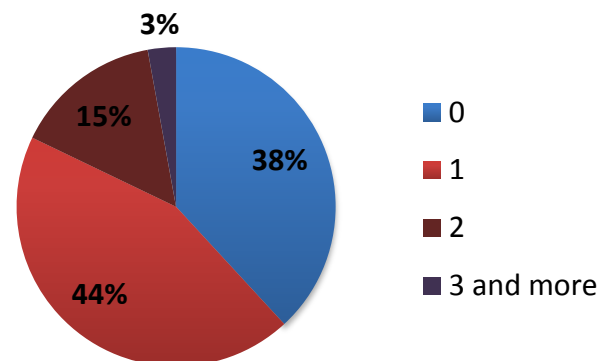


Total number of unofficial wastewater storages: **8 645**

Is there wastewater storage at the household?

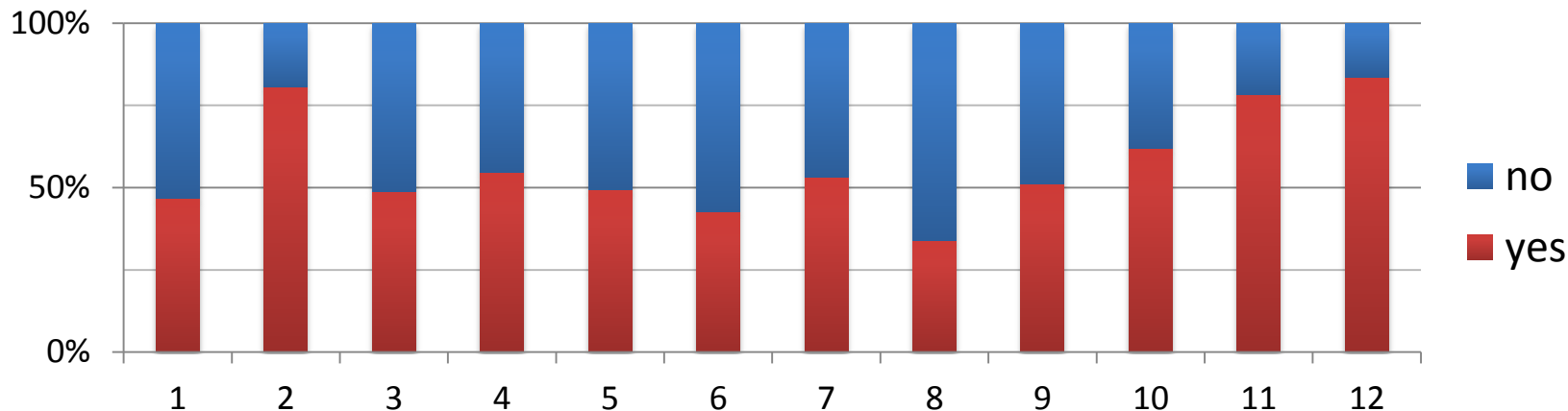


How many wastewater storages are there at the household?

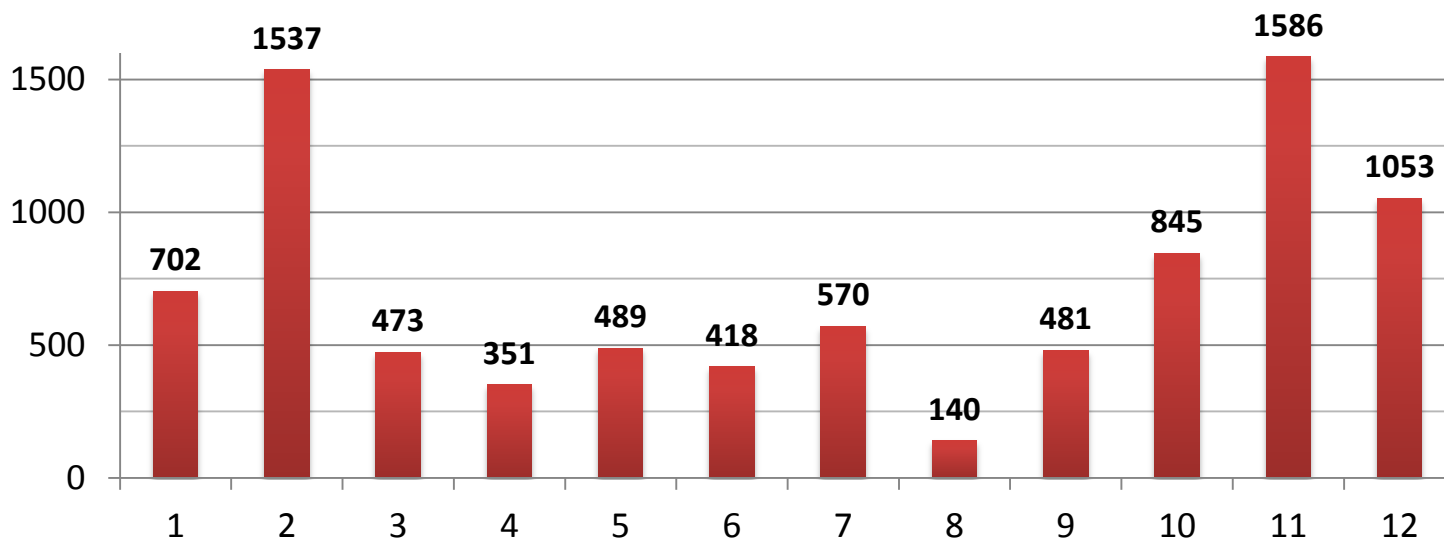


# Wastewater storage at households per district

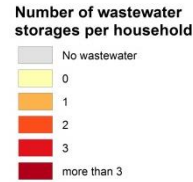
## Households with wastewater storage



## Number of wastewater storages per district



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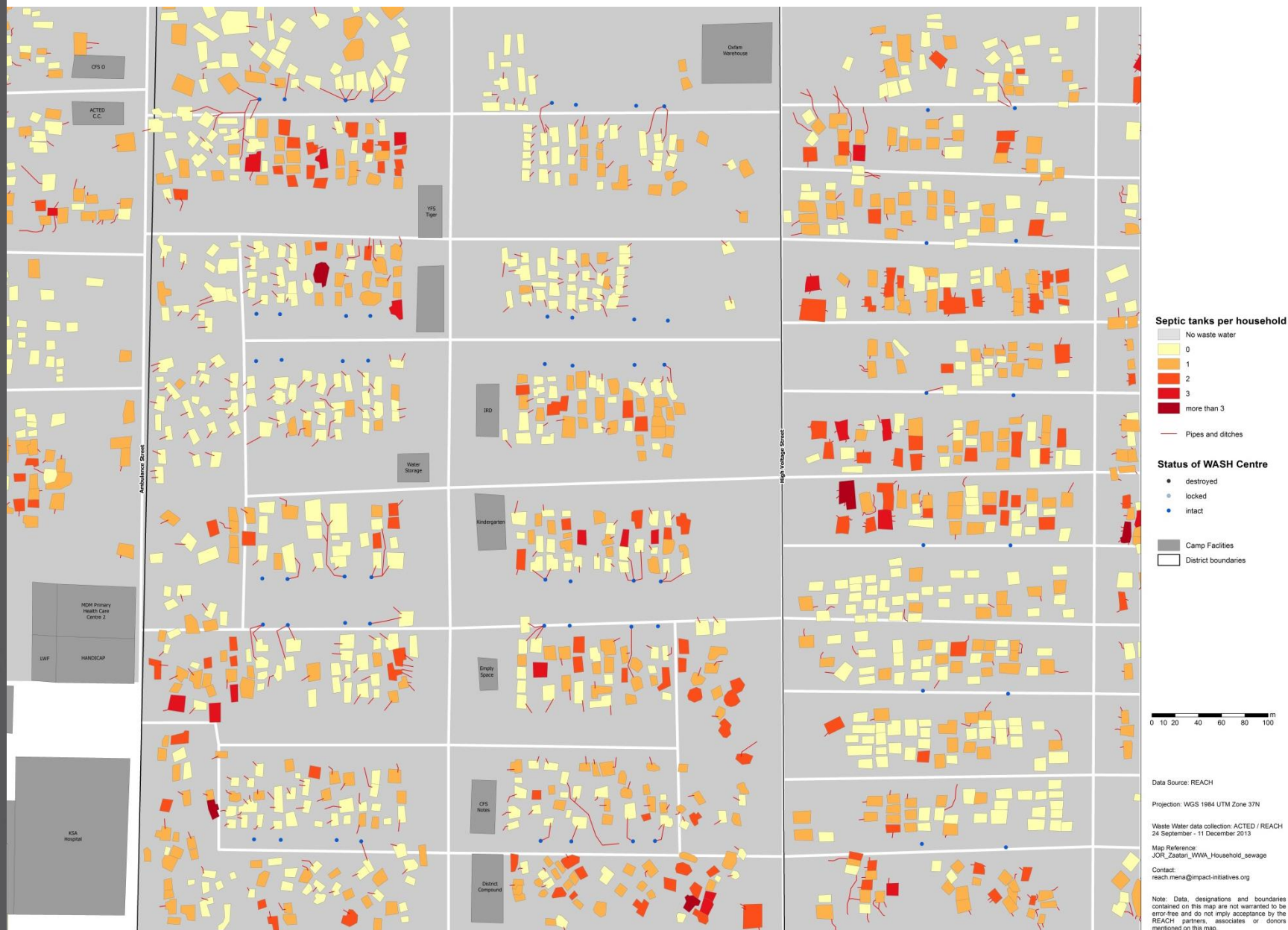


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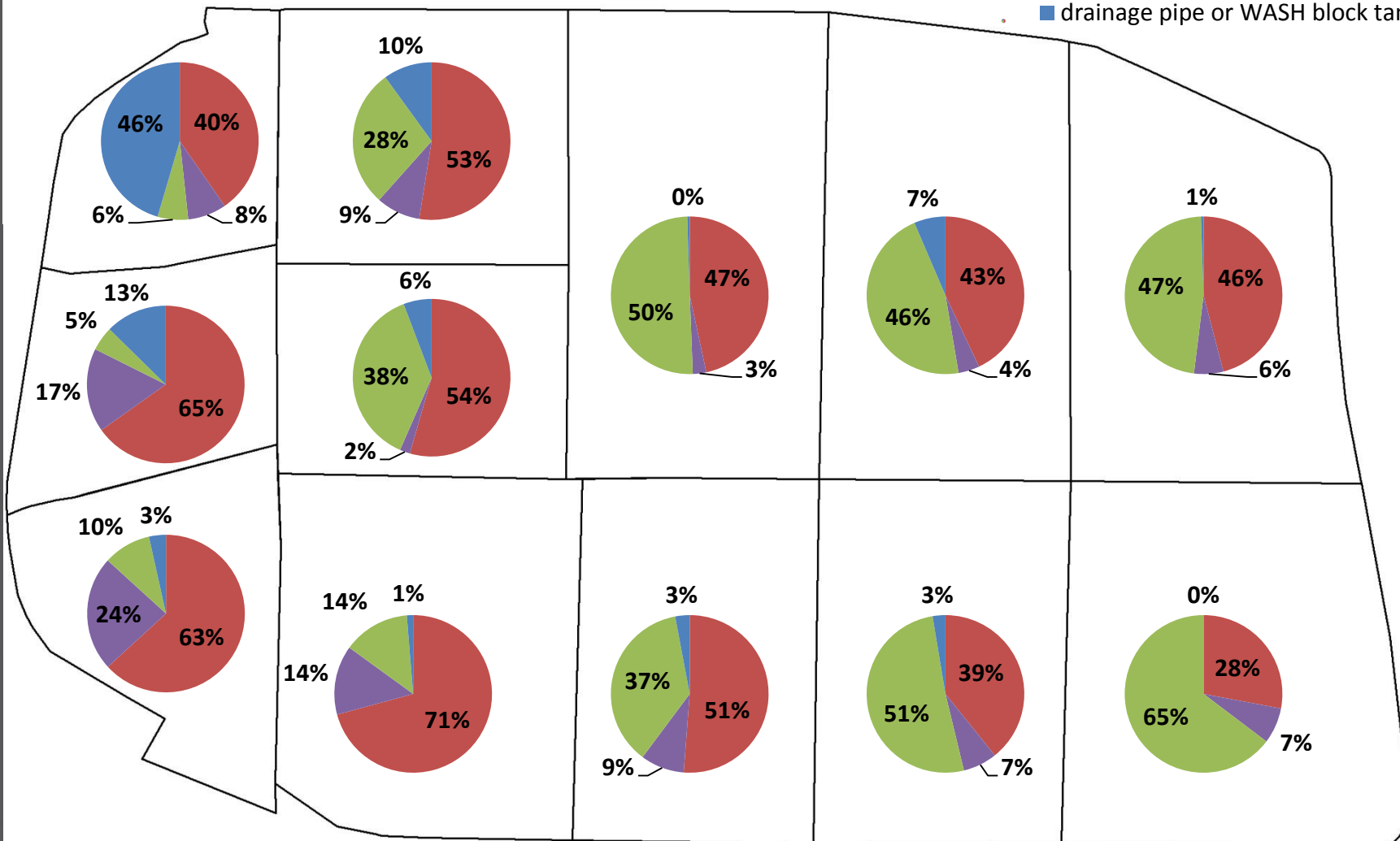


# Informal Household Wastewater Storage: District 5

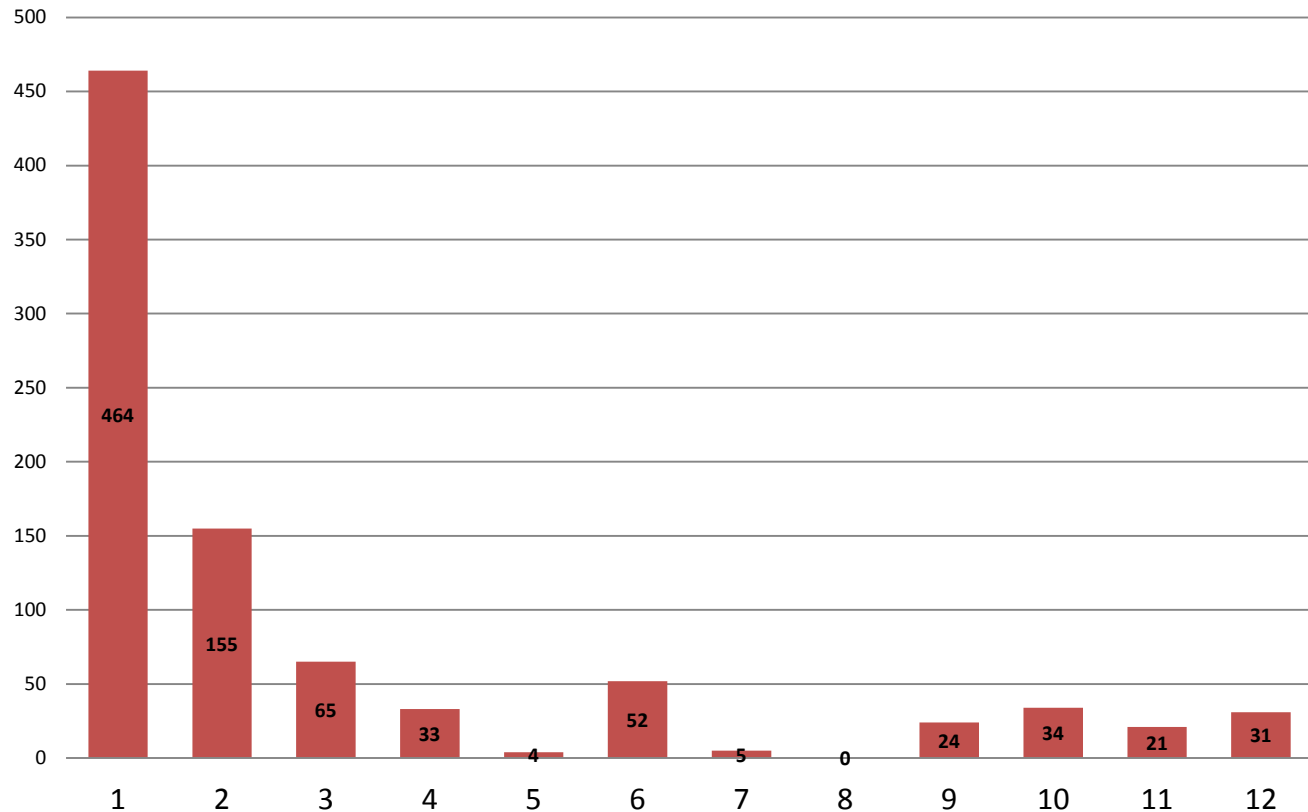


# Methods of wastewater disposal

- pit
- barrel/tank
- surface run off
- drainage pipe or WASH block tank



# Households connected with drainage network and WASH block tanks



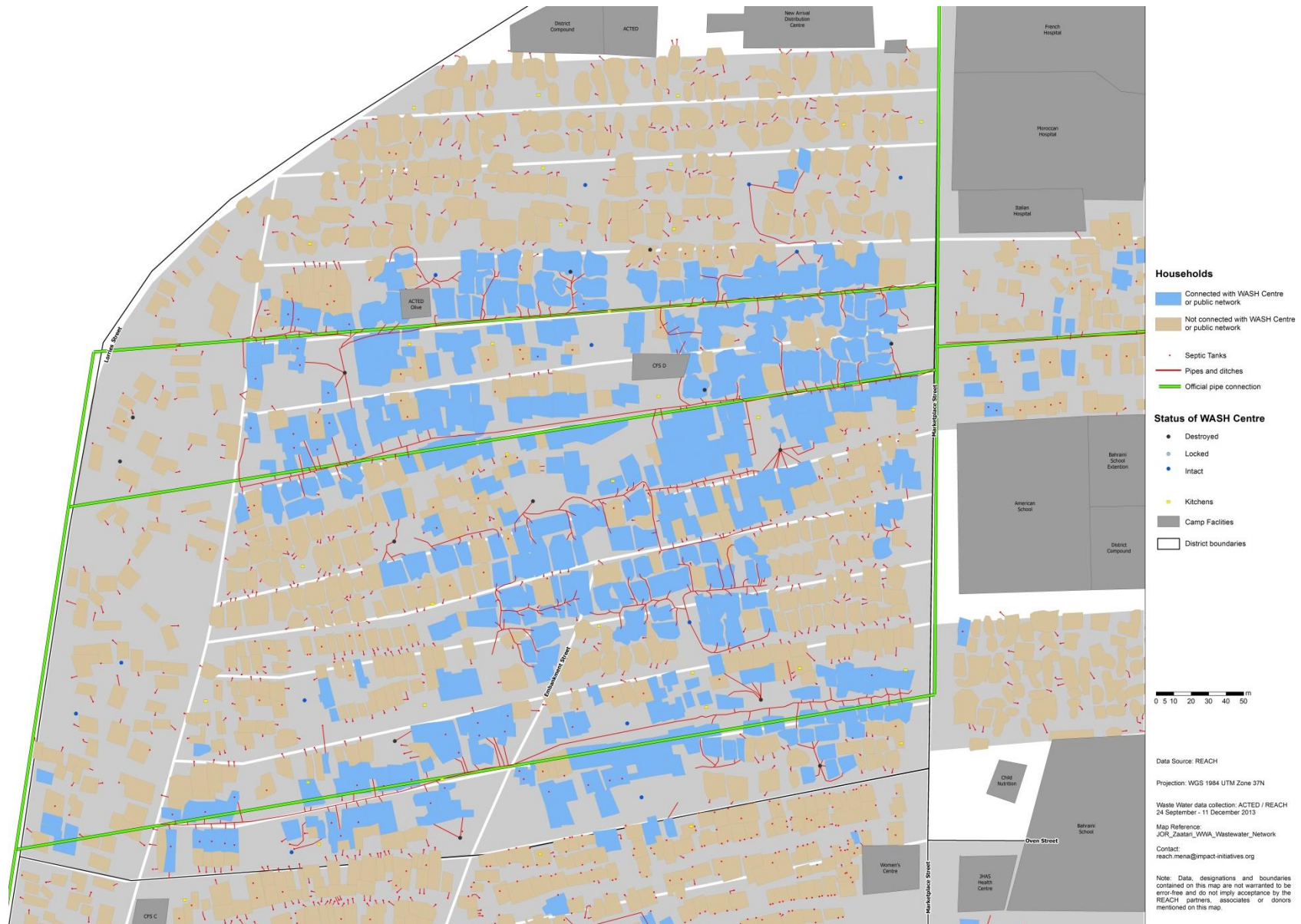


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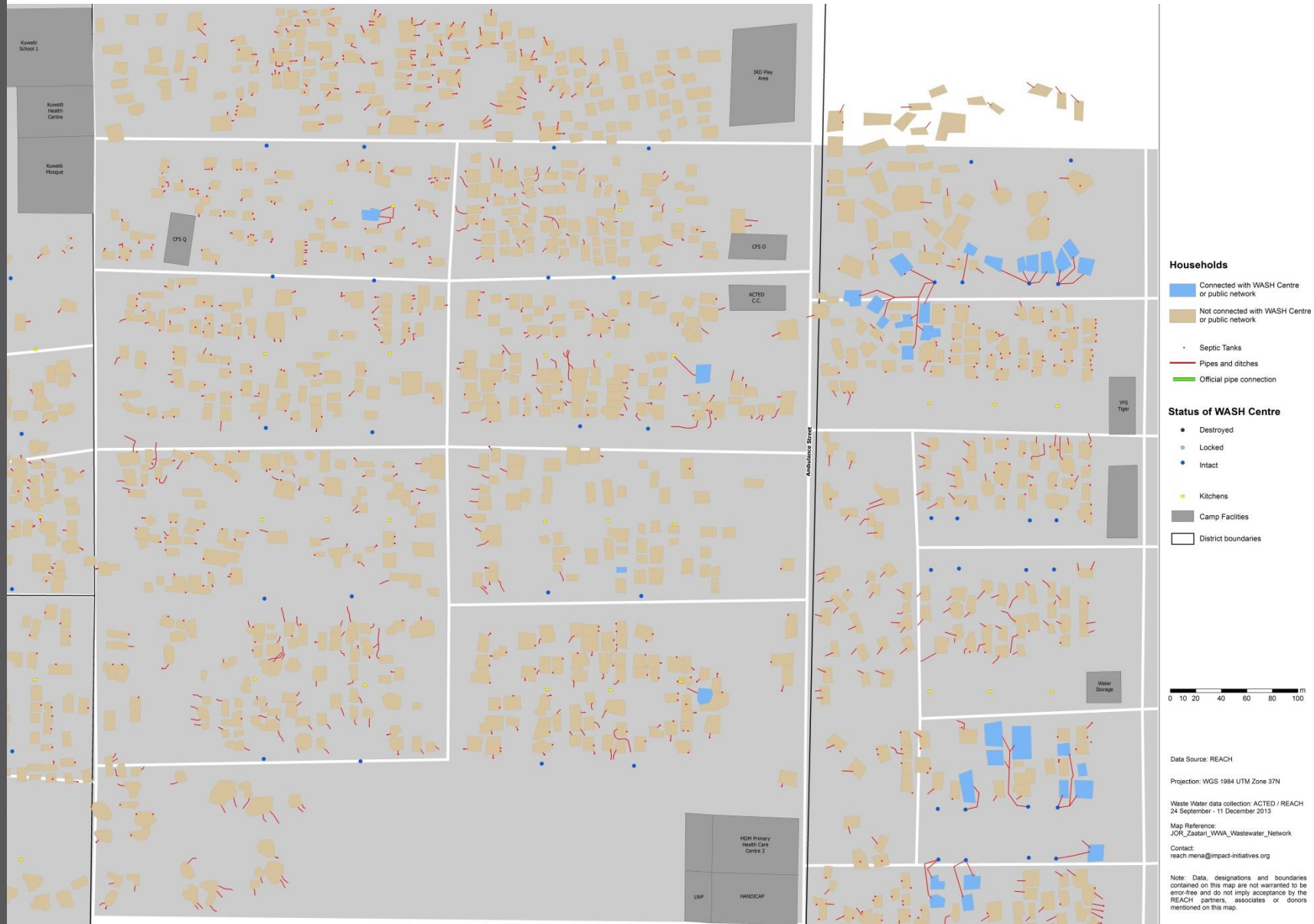




# Households connected with drainage network and WASH block tanks: District 1



# Households connected with drainage network and WASH block tanks: District 5





# Any Questions?

For any REACH Data, please contact:

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