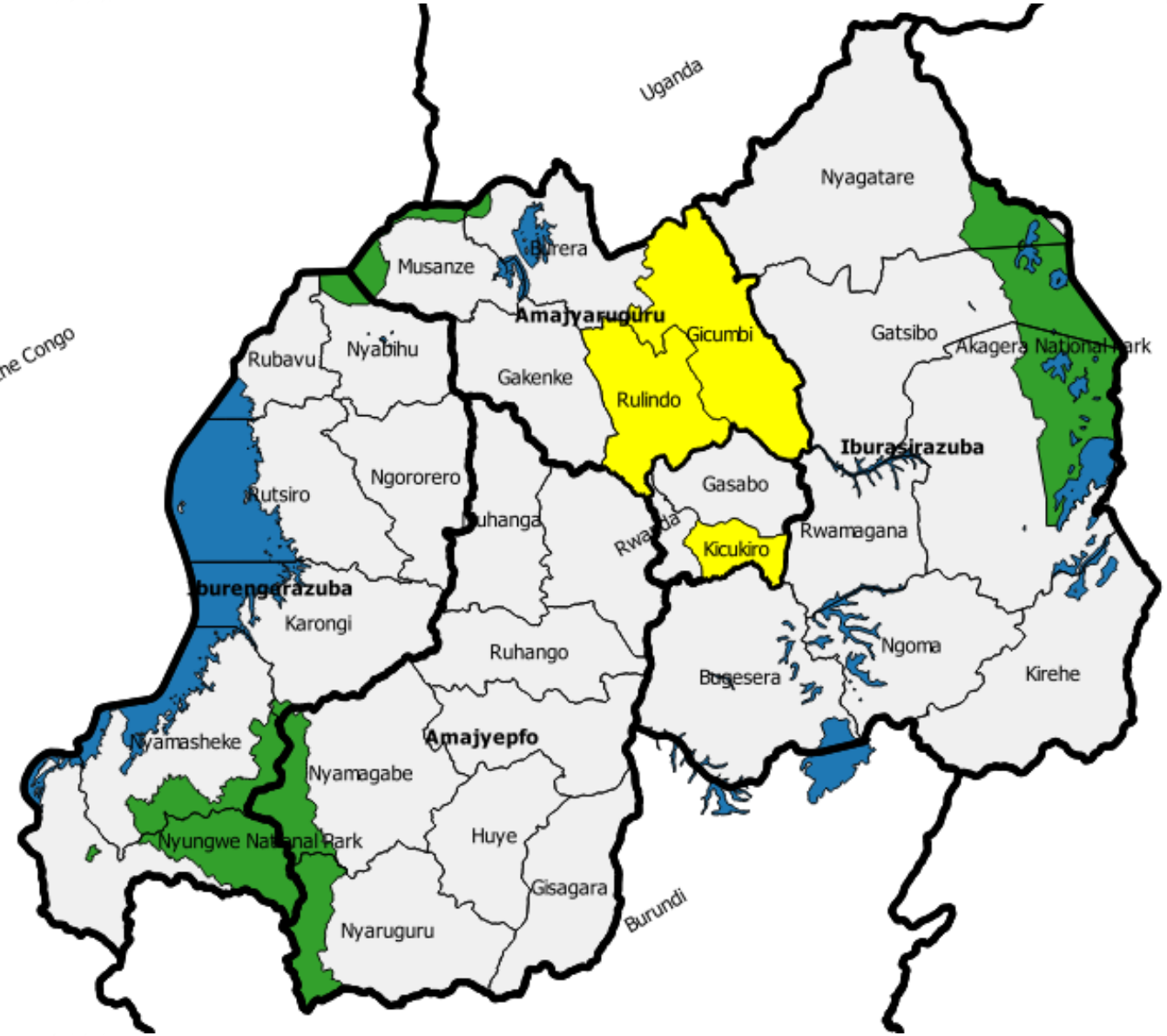
Agenda For Change

Achieving Universal Access to Water, Sanitation and Hygiene by 2030

Water For People Experience in Rwanda

ASSETS REGISTRY / ANALYSIS TOOL



WATER FOR PEOPLE—RWANDA

- Registered in 2008
- Activities in Rulindo, Kicukiro and Gicumbi Districts
- Focus on: Water Supply, Sanitation and Hygiene education
- Sanitation includes sanitation in public institution (schools and health care facilities) and household Sanitation through Sanitation marketing approach

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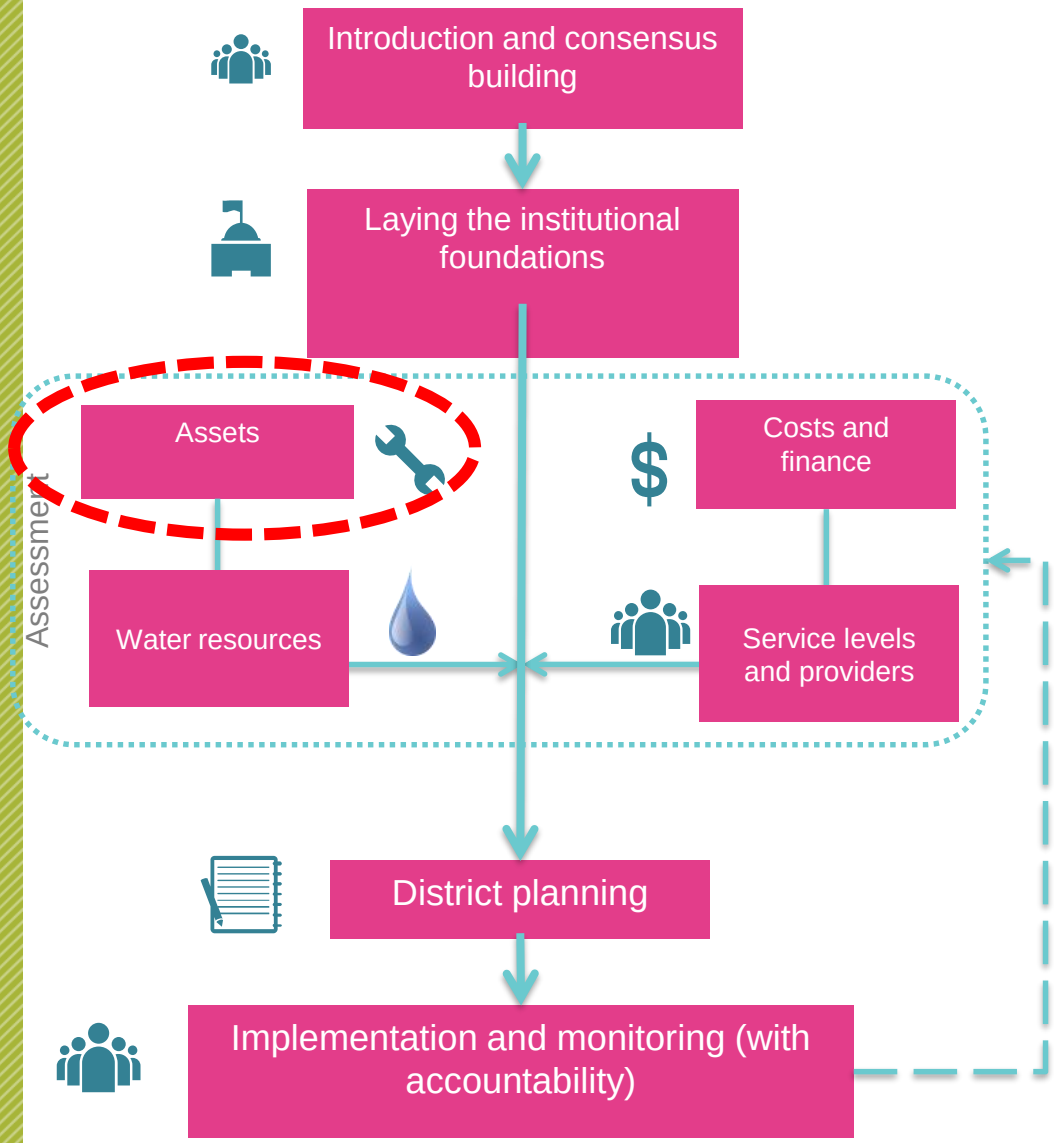
DWA OVERALL CONCEPT



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Usefulness

The Asset Registry tool is used to identify, catalog and classify all water systems within a district based on their current needs, level of water service provision, and general timeline for eventual repair and/or replacement of significant components.

It helps to flag, prioritize and classify different water systems within a district based on risk and need for repair.

It will help provide a foundation for a long-term plan to maintain, repair, augment, or replace a water system when necessary.

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Components of rural water supply system

- Source
- Intake structure
- Treatment
- Pump/if necessary
- Conduction line
- Storage tank
- Distribution network
- Hydraulic structures
- Public tap/household connections

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Definitions of terms used by the tool

- **Assets/Components:** Different part composing a water supply system, as highlighted in the previous slide

- **Design life:** Period in which the component will be operating at its maximum capacity, each components have different design life

Reference data: Design Lifetime	Years
Intake	30
Conduction Line	20
Storage tank	30
Other Concrete Structure (sedimentation tank, pleasure break tank, etc.)	20
Distribution Network	30
Pump and Pump Related Electrical Equipment	7
Pump House/Station	20
Treatment Equipment	10
Treatment Housing Structure	10
Kiosk or Public Tap	20

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Definitions of terms used by the tool (Ctnd)

- **Remaining life period:** Period remaining for the components to be replaced

- **Risk:** Analysis done by the tools based on three areas to evaluation if a component will allow the entire water system to provide water service delivery

Risk Based On Age	Risk Based On Current Condition
No Improved Water Point/System	No Improved Water Point/System
High Risk	High Risk
Low Risk	Low Risk

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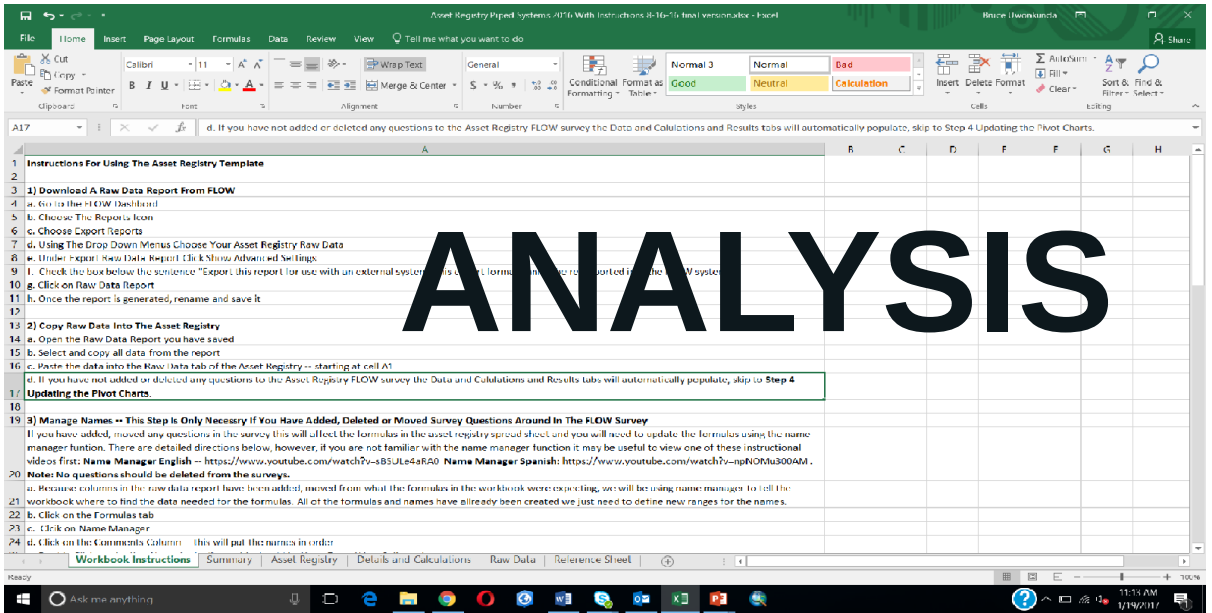
Structure of tool

Two principal components:

- An Android based adaptive **survey** in the application akvo-FLOW

For data collection through survey questions

- A Microsoft-Excel **spreadsheet** that takes raw data obtained in the survey and analyzes it,



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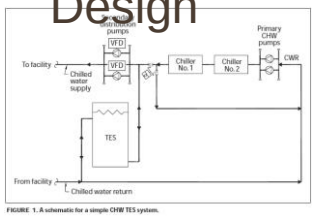
PROCESS

1. Baseline
   - Service Levels
   - Service Provider performance and capacity
2. District Capacity Assessment
3. Asset Register

Asset Register Tool

Bill of Quantities
Budget
Design



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DEVELOPING THE SURVEY QUESTIONS

1	**Rwanda Core Asset Analysis Piped Systems (v. 3.1)**	
2	**Question**	**Response**
3	**General Information**	
4	1. Year / Umwaka	_____
5	2. Community Name / Umudugudu	_____
6	3. Water Point/System Unique ID / Nimero y'umuyoboro	_____
7	4. Total Number of Households Living in the Community / Umubare w'ingo ziba	_____
8	5. Total Number Of Households In The Community With Access To An	_____
9	6. Total Number Of Households In The Community Without Access To An	_____
10	7. Is This An Improved Water Point/System? / Uyo muyoboro uratunganyije?	
11		Yes / Yego_____
12		No / Oya_____
13	***Only answer if you responded Yes to Q7***	
14	8. What Type Of Water Point/System Is This? / Uyu muyoboro ni bwoko ki?	
15		Piped Network -- Gravity Only / Umuyoboro udakoresha ingufu za moter
16		Piped Network with Pump / Umuyoboro ukoresha ingufu za moteri_____
17		Centralized Rainwater Catchment / Amazi yo mu bigega akusanyirijwe h
18		Kiosk with Piped Supply / Kiosk ifatiye ku muyoboro_____
19		Private Tap with Piped Supply / Robine y'umuntu ku giti cye ifatiye kumu
20	***Only answer if you responded No to Q7***	

Sheet0

..\DWA Training tools\Survey questions\Final survey questions\Rwanda 2017 Core Asset Analysis Piped Systems_Revised Final_Survey questions_MININFRA_DWA_v1.xlsx

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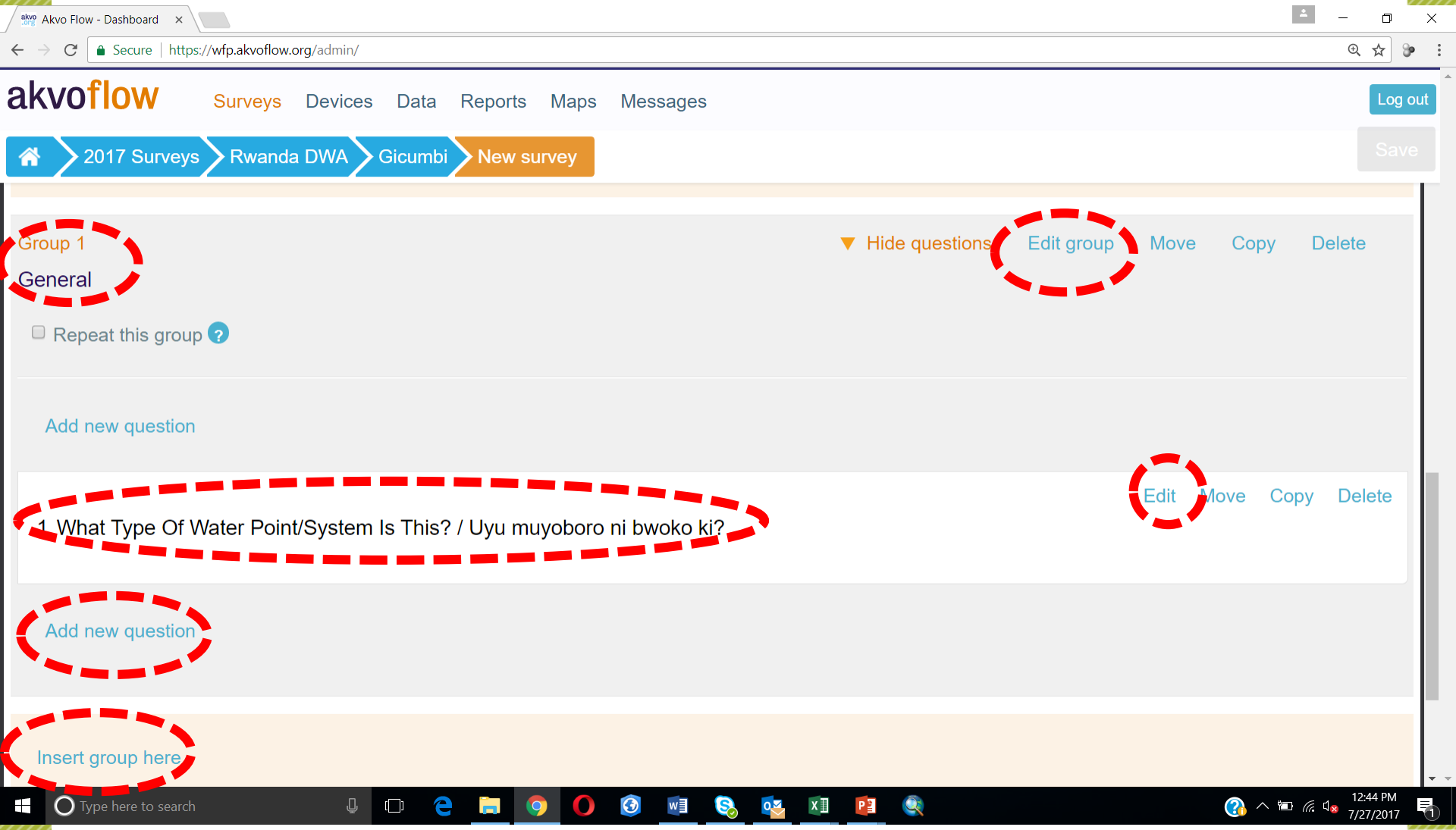
CREATING THE SURVEY IN AKVO FLOW



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CREATING THE SURVEY IN AKVO FLOW

- Develop questionnaires
- Upload questions on the Dashboard
- Edit or add more questions online
- The dashboard will generate a survey ID which you use to download a survey on the phone

- Install by direct download of the app in the phone
- Start the application and download the surveys using IDs
- Train data collectors

- Once surveys are uploaded on an android phone make sure you buy bundles for internet
- When surveys are filled and complete it will automatically be sent to the Dashboard
- At the Dashboard you can still edit clean or adjust info if needed

After data collection, download the raw data from the dashboard and paste them in the excel tool

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Overview of the tool

- For prioritization, **three areas** are assessed:
  - **Age of Water System Components**
  - **Overall Functionality/Level of Service Provided by Water System**
  - **Physical State of Water System Components:**

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Overview of the tool

- For prioritization, **three areas** are assessed:
  - **Age of Water System Components**

Current year – Year of construction =
Result compared to the lifetime period of the component

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Overview of the tool

- **Overall Functionality/Level of Service Provided by Water System**

Assessment through survey questions that measure 8 indicators

Scores	Color	Label
0	Black	No Water Point/System
1	Red	Water Point/System In Poor Condition
2-5	Orange	Water Point/System In Basic Condition
6-7	Yellow	Water Point/System In Intermediate Condition
8	Green	Water Point/System In Good Condition

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Overview of the tool

Level of Service Water Point/System	Points Possible
Water Point/System Is Improved	1
The Source Of The Water Point/System Is Protected	1
Water Point/System Infrastructure Is In Good Physical Condition And Is Functional	1
Number of Users of Water Point/System Meet Standard	1
Water Is Available On The Day Of The Visit	1
Water Point/System Out Of Service For 1 Day Or Less A Month In The Last Year	1
Water Point/System Has Adequate Water Quality (bacteria, turbidity and other contaminates of concern)	1
Water Point/System Has Adequate Water Quantity	1
Total	8

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Overview of the tool

•**Physical State of Water System Components:**

Normal: This means that the current physical state does not impact the functionality of the particular component.

Poor: This means that currently the physical state is such that the functionality of that component is impacted and inhibited

Non-Functional: The component is not functional whatsoever given the significance of the repairs needed, and is likely impacting the overall functioning of the water system itself; full-scale replacement or rehabilitation, or large-scale repair, is needed for component to function again

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Overview of the tool

Copy of Rulindo Asset Analysis Piped Systems 6-16-17.xlsx

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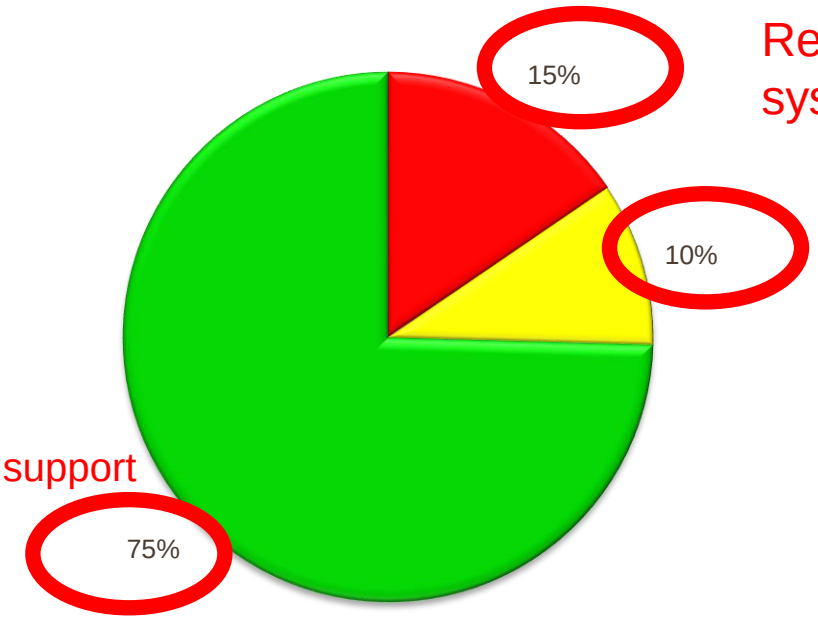
OUTPUTS

Level Of Priority To Replace/Repair The System



Rehabilitation of existing systems

Targeted Support (more visits than usual, refresher training, audit records to verify O&M Training)

Continue to support

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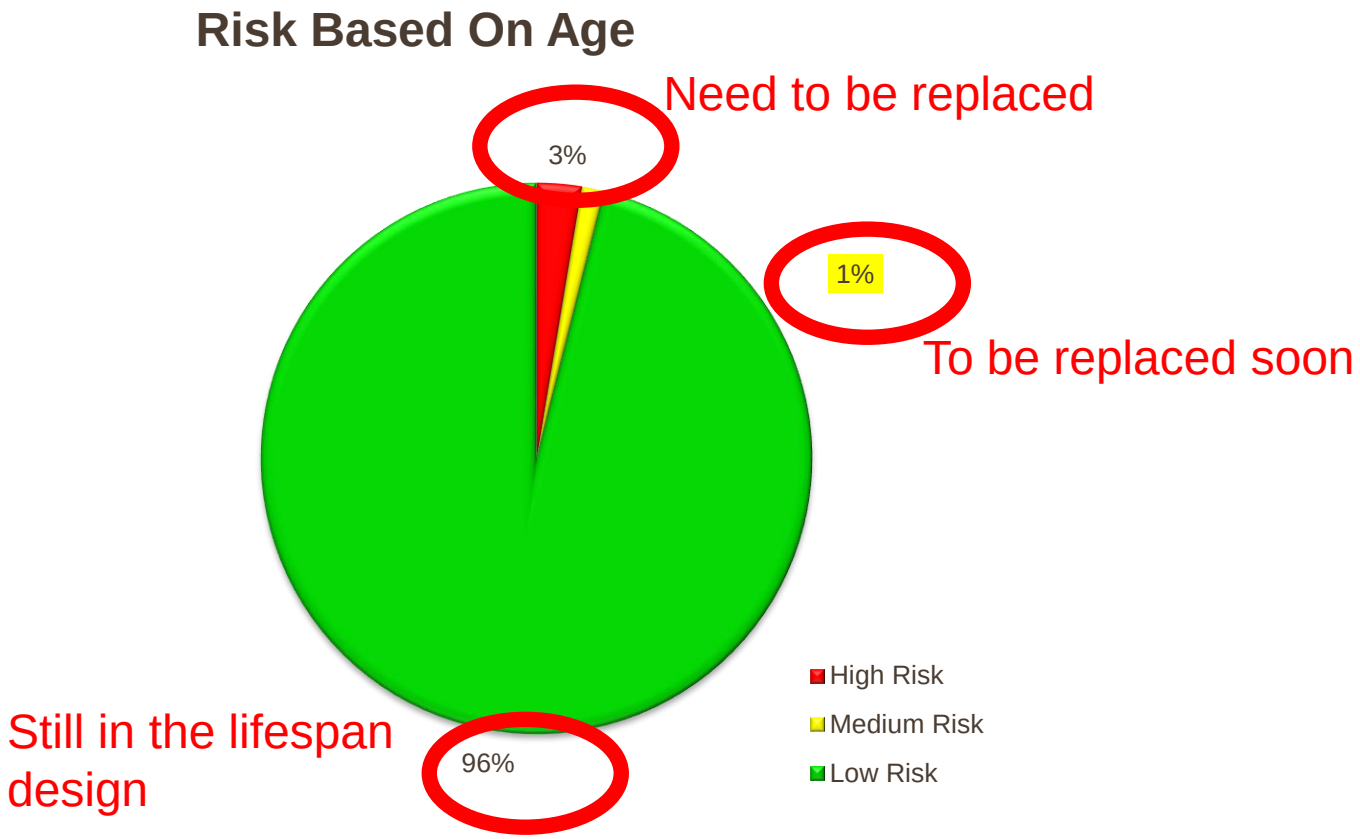
OUTPUTS



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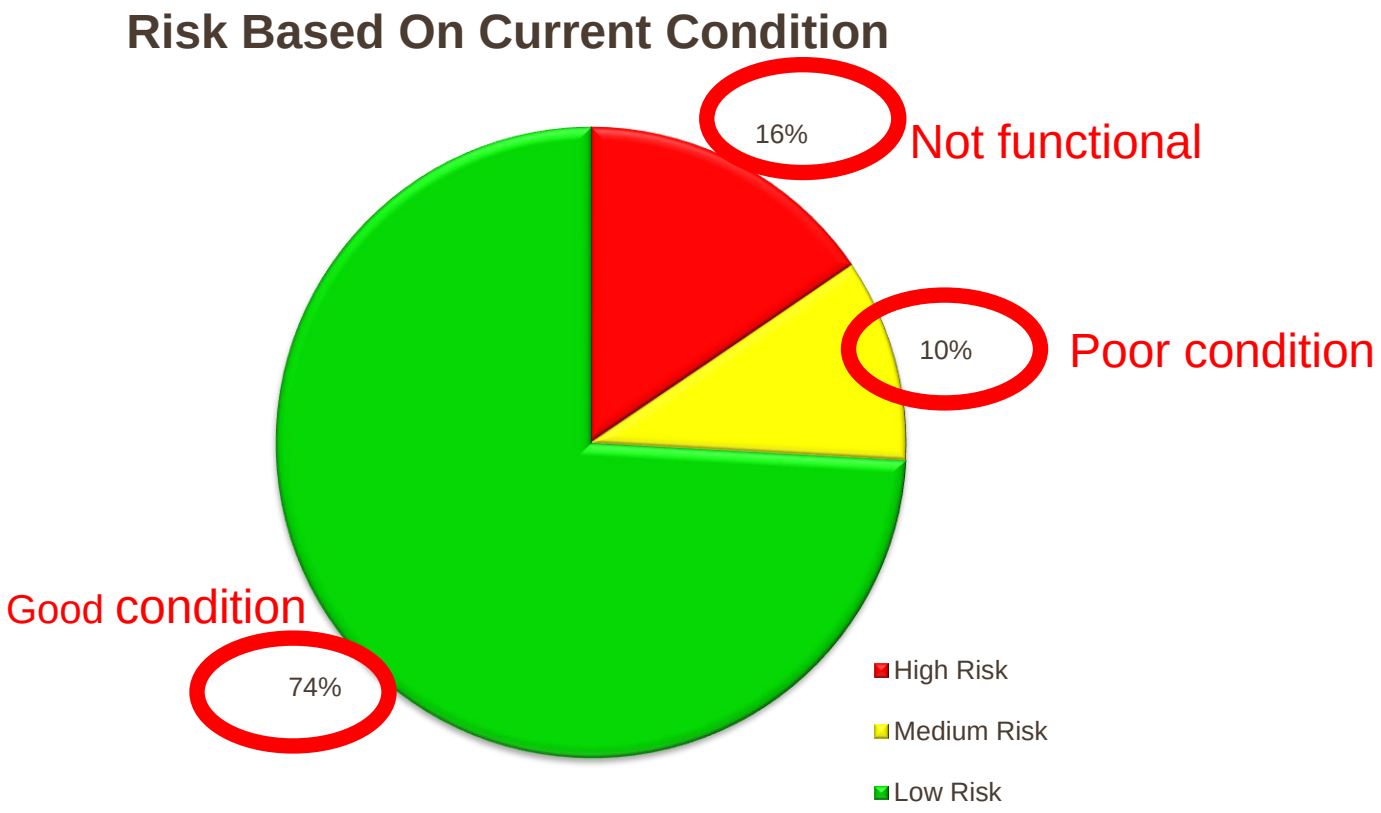
OUTPUTS



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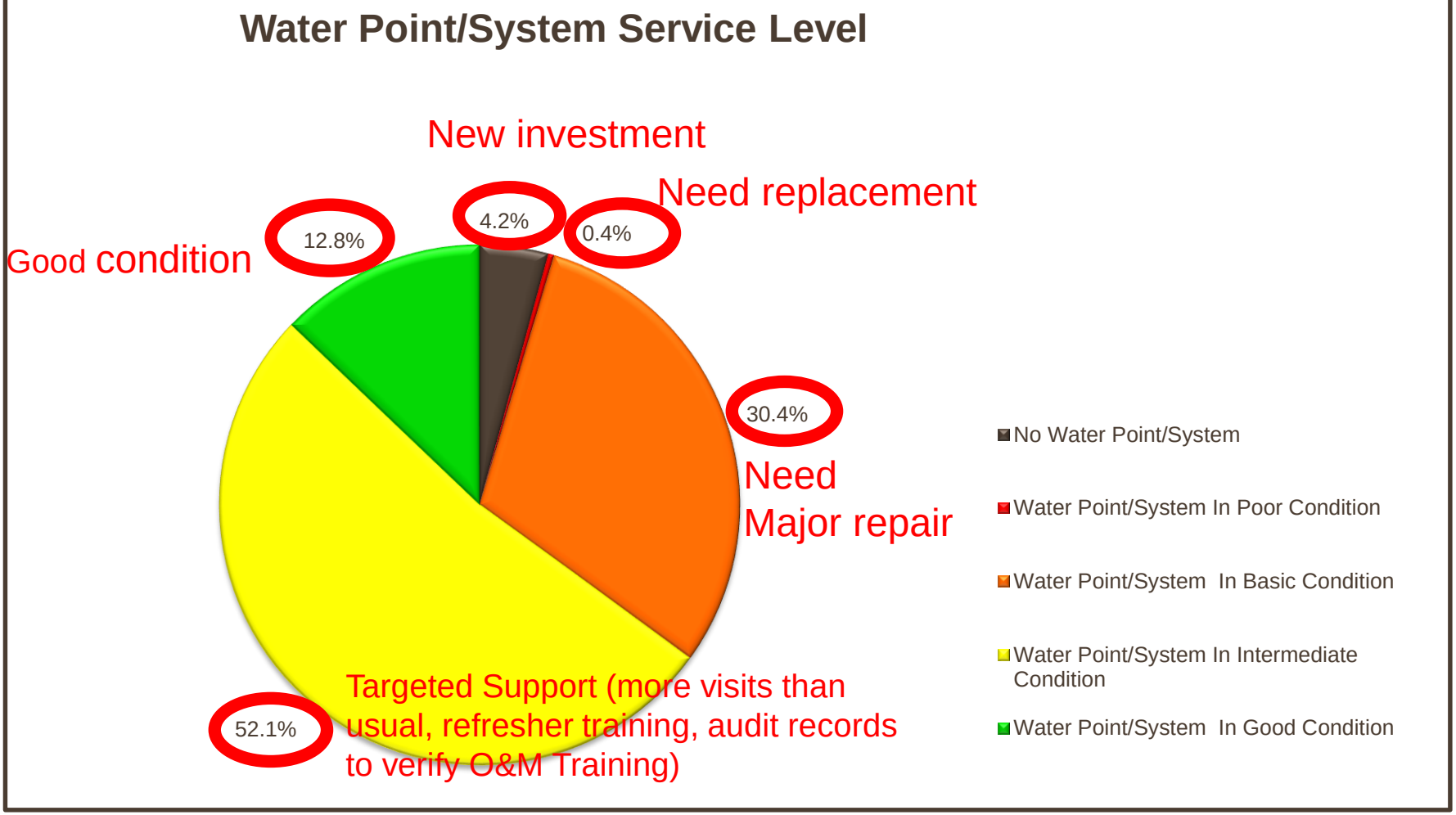
OUTPUTS



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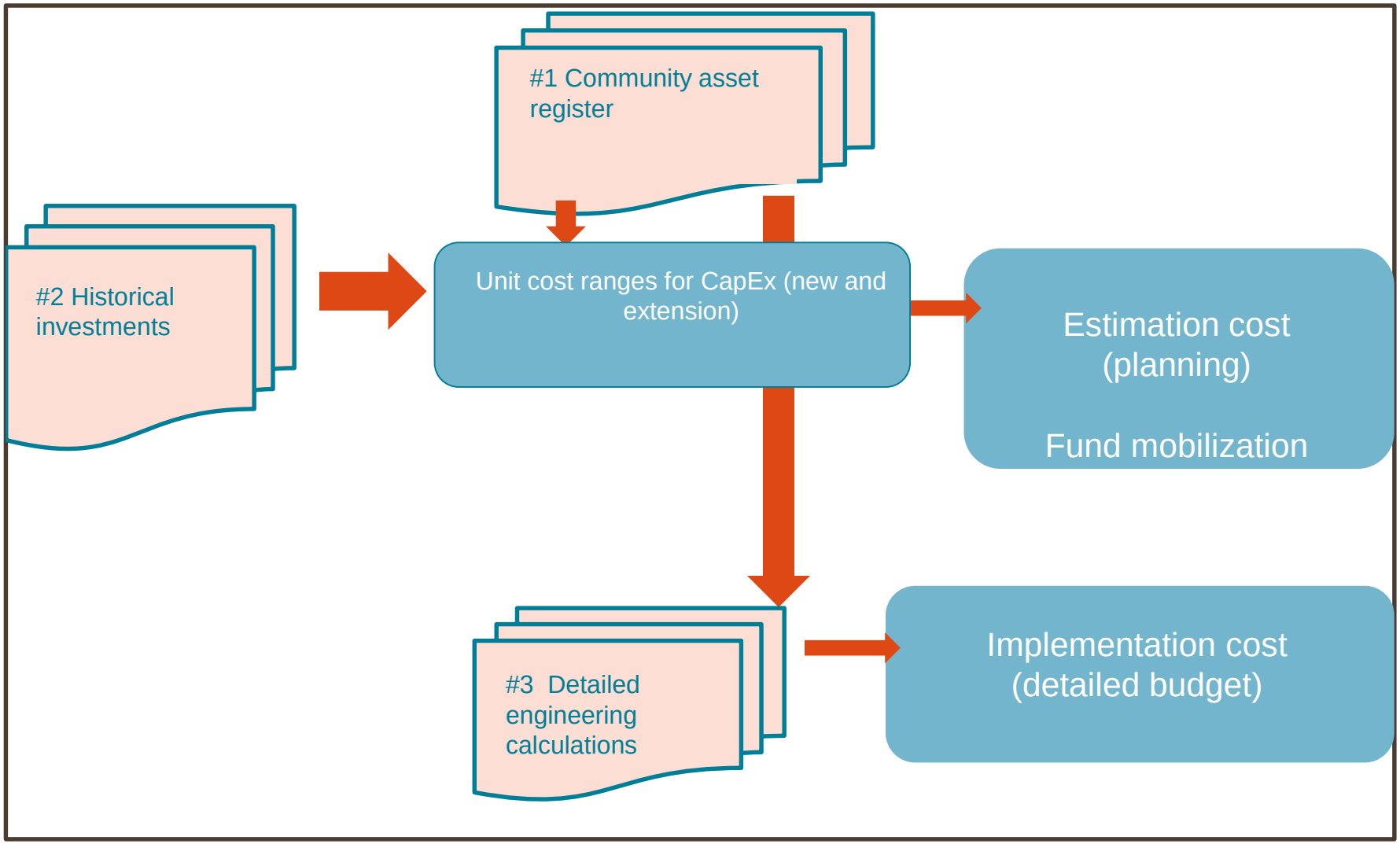
COSTING



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COSTING

Unit costing example based on historical data

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Thank you!

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the current of change