WASH Sustainability Index Tool

Webinar

20 November 2013

Structure of the Tool

Components:

1. PDF Guiding Document
   - 374 MB “complete” version
   - 37 MB “smaller” version

2. Videos (complete only)

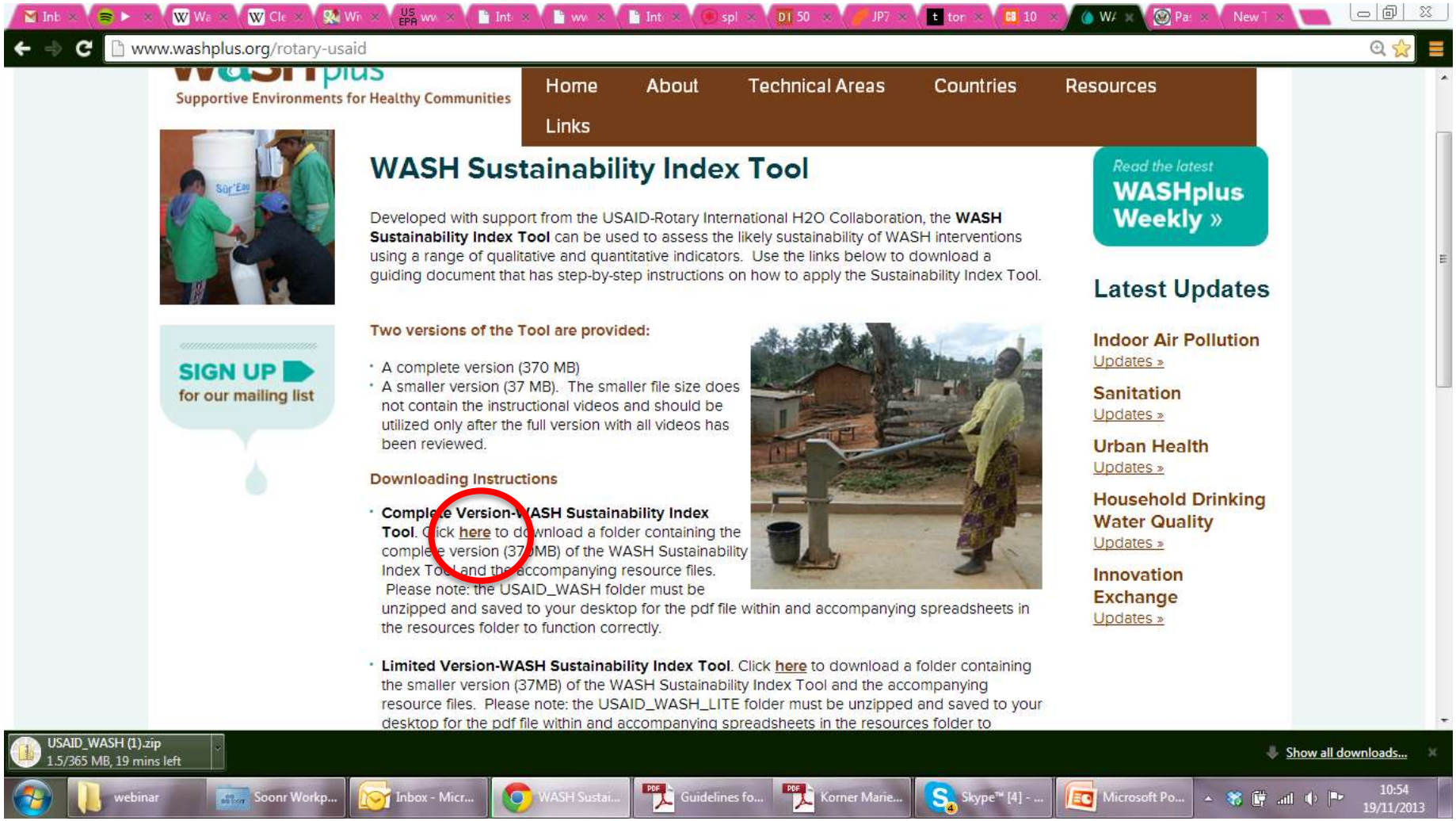
3. Excel Frameworks (both)

Available at http://www.washplus.org/rotary-usaid

Download PDF

Open zip file “USAID_WASH”

Copy subfolder and contents to permanent location (eg-desktop)

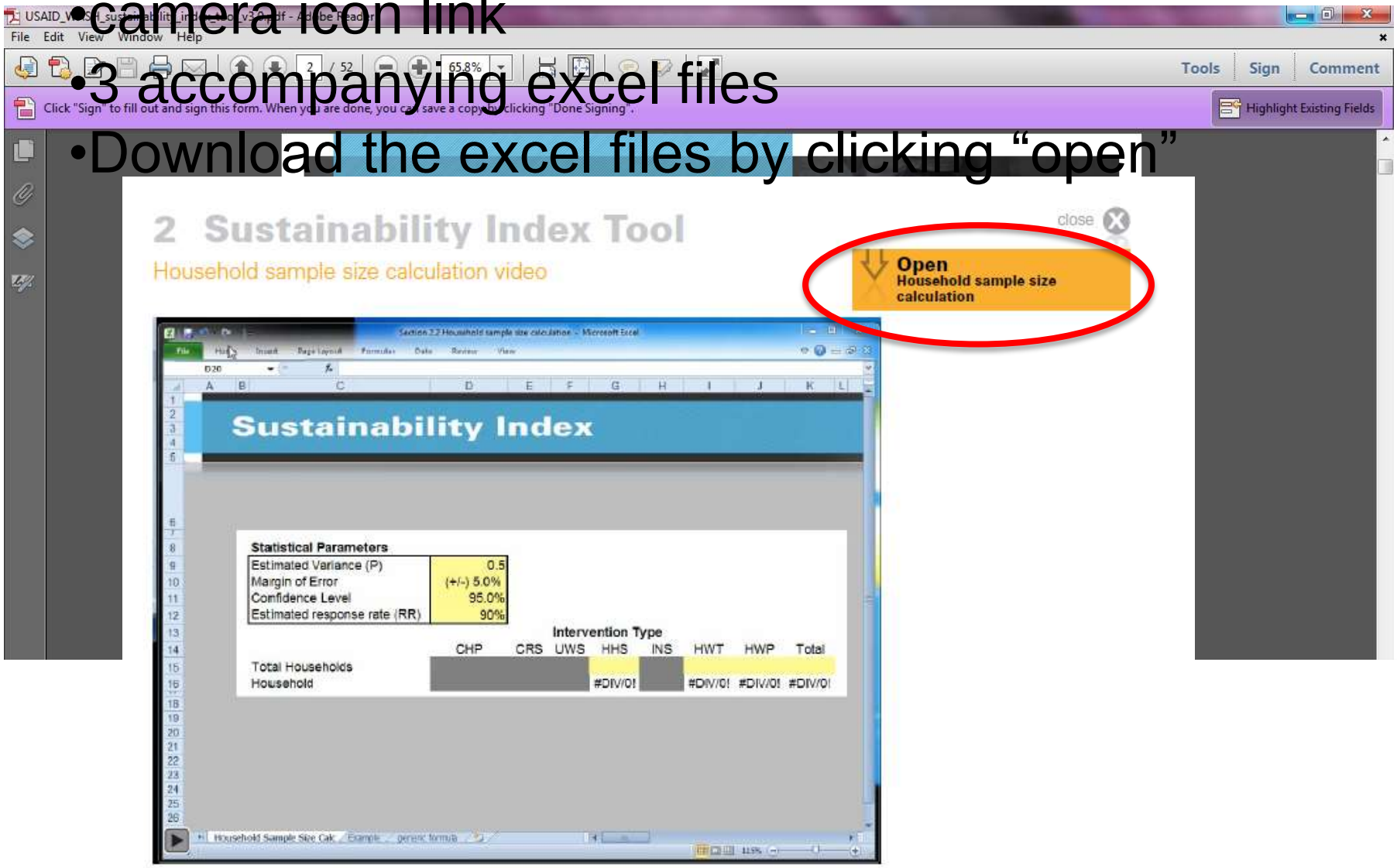


PDF Guiding Document

Detailed step by step guidance of the process
Embedded videos
Excel framework spreadsheets

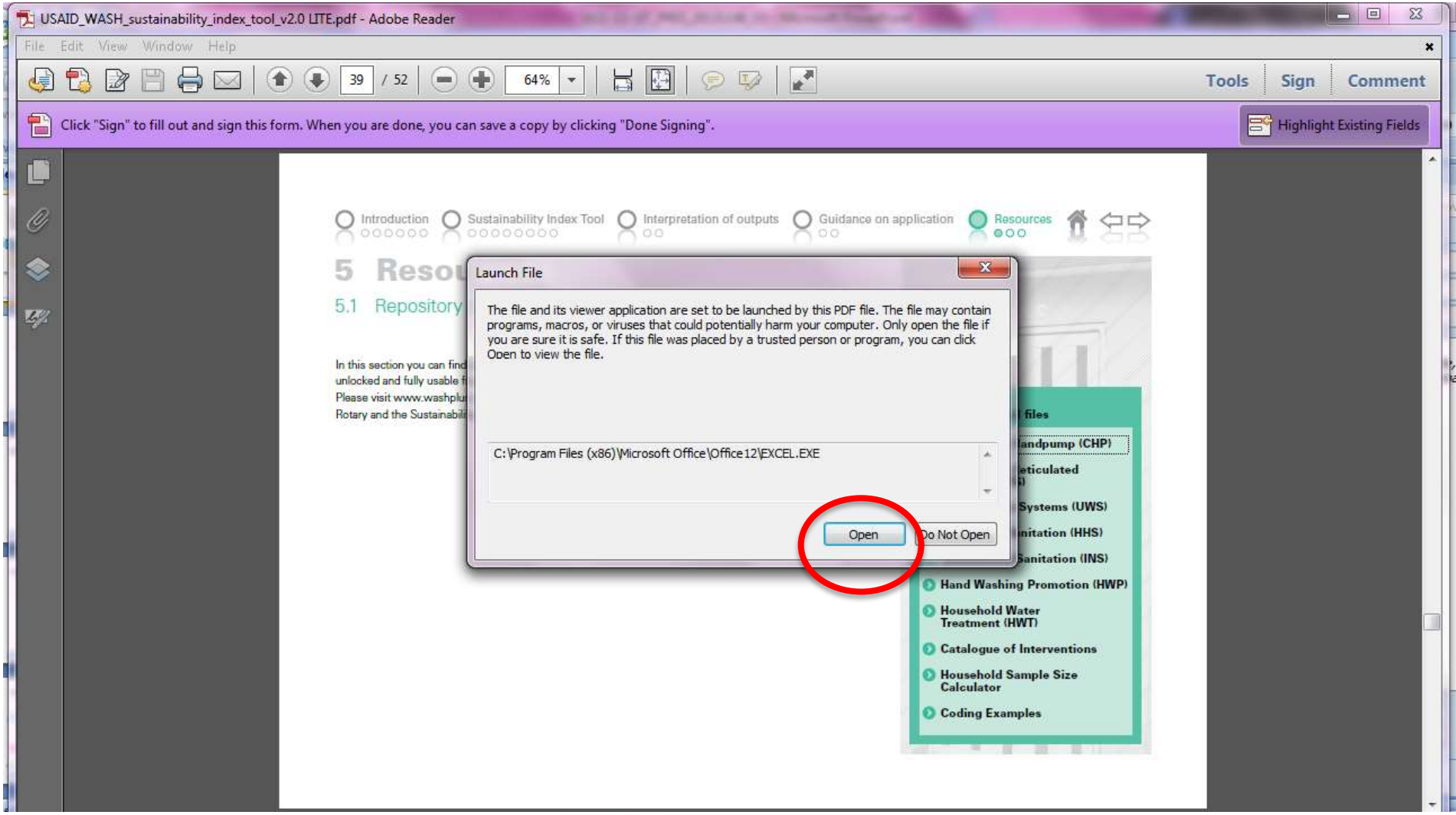
Videos

- 7 total (including navigation video)
- camera icon link
- 3 accompanying excel files
- Download the excel files by clicking “open”



Downloads from PDF

"Launch File" dialogue box



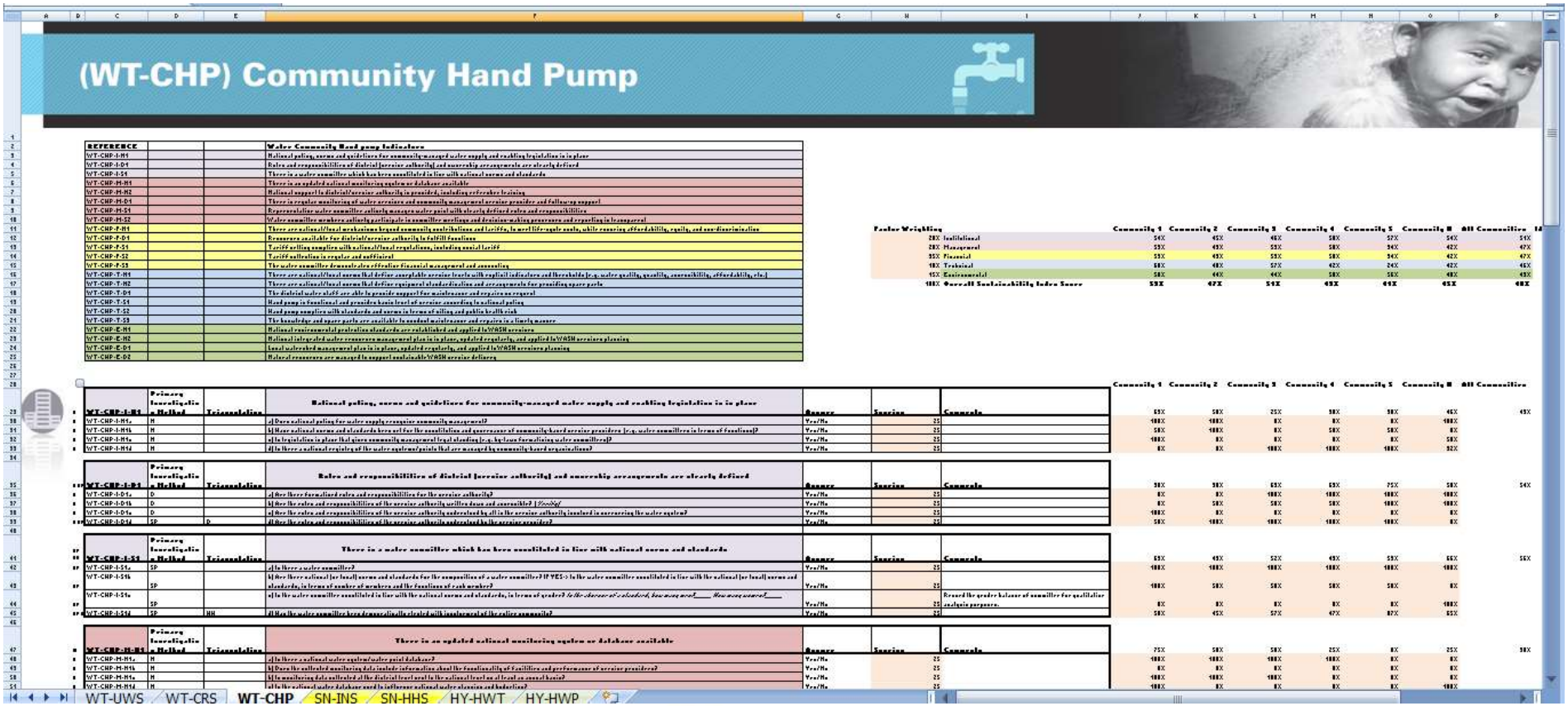
Excel Framework

Total of 7 framework files

Each file is 1 indicator type

Locked (Section 2.1) – ability to change values in pink cells

Unlocked (Section 5) – modify all content



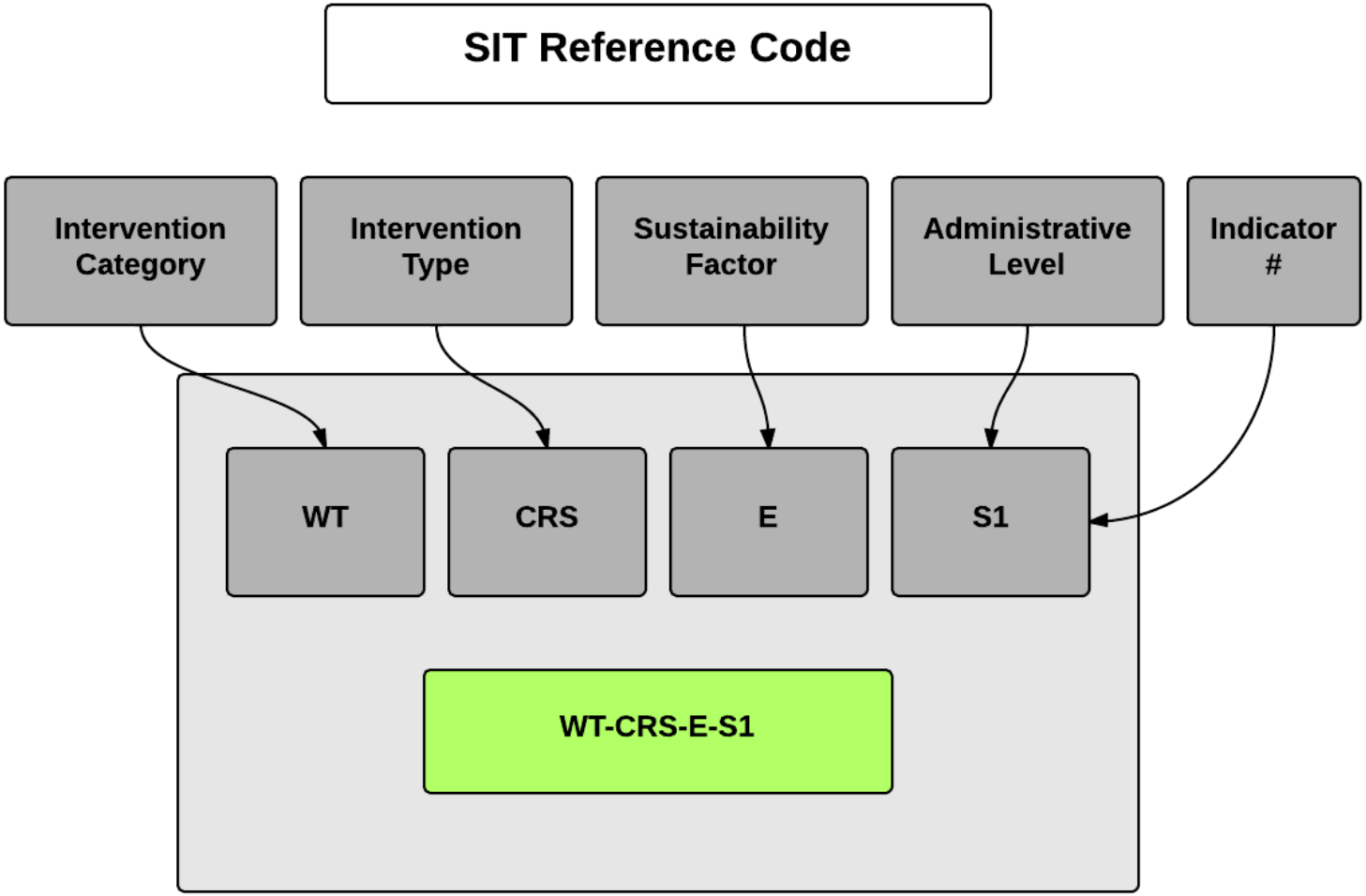
Framework Components

WT-CHP-M-N1	Primary Investigation Method	Triangulation
WT-CHP-M-N1a	NL	
WT-CHP-M-N1b	NL	
WT-CHP-M-N1c	NL	
WT-CHP-M-N1d	NL	

WT-CHP-M-N2	Primary Investigation Method	Triangulation
WT-CHP-M-N2a	NL	DS
WT-CHP-M-N2b	NL	DS
WT-CHP-M-N2c	NL	

WT-CHP-F-SP1	Primary Investigation Method	Triangulation
WT-CHP-F-SP1a	SP	
WT-CHP-F-SP1b	SP	DS
WT-CHP-F-SP1c	SP	

Reference Code



Intervention Categories

1. Water supply (WT)
2. Sanitation (SN)
3. Hygiene (HY)

Intervention Types (developed to-date)

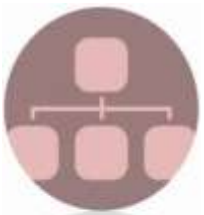
1. **CRS-** community reticulated systems
2. **CHP**- community handpumps
3. **UWS-** utility water systems
4. **WSP** – water source protection
5. **WPS**- water pan systems
6. **RWH-** rainwater harvesting

7. **INS-** Institutional sanitation
8. **HHS**- Household Sanitation

9. **HWP**- Hygiene and handwashing promotion
10. **HWT-** Household water treatment

Sustainability Factors

Institutional



Management

Financial

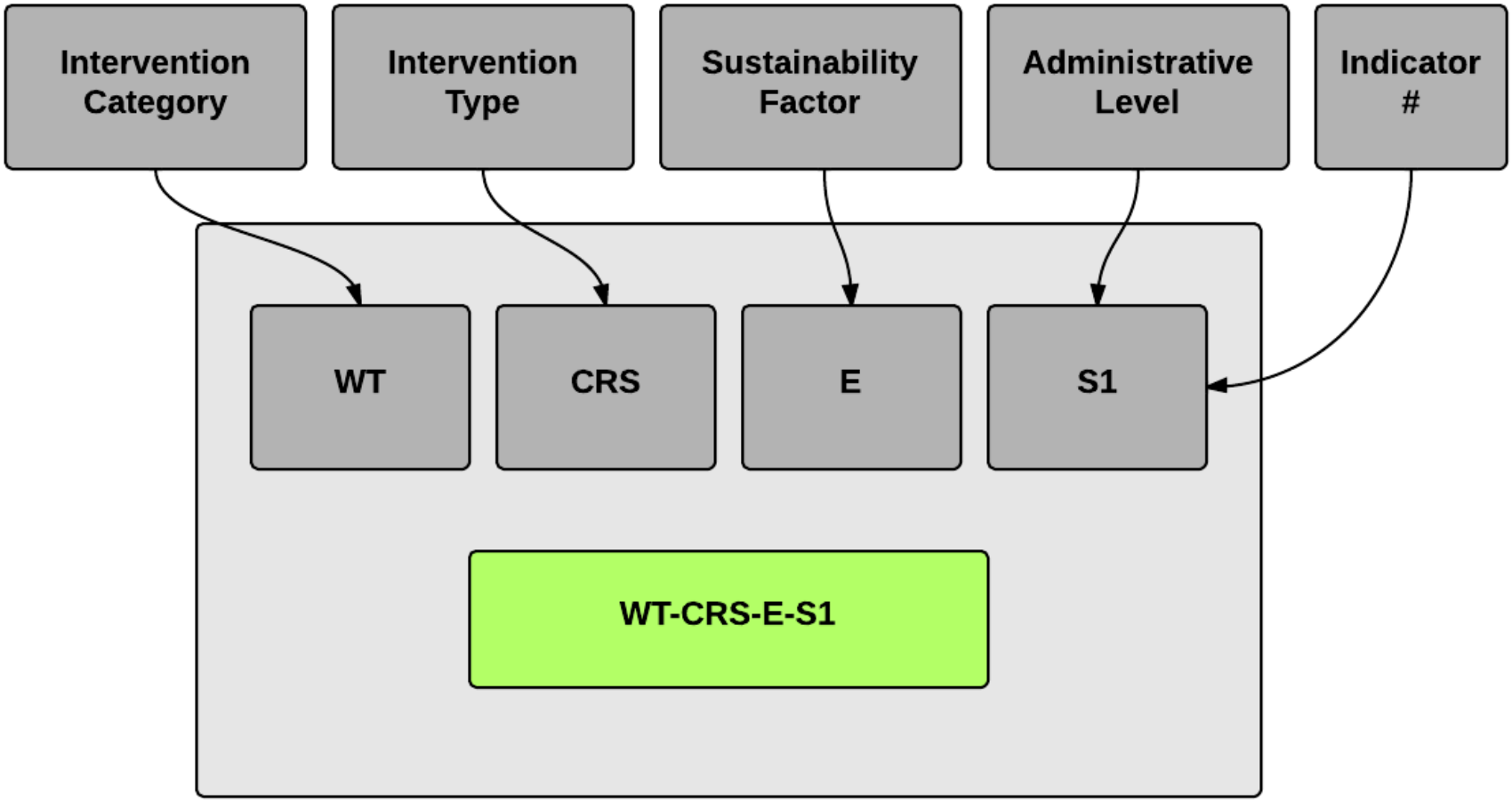
Technical

Environmental

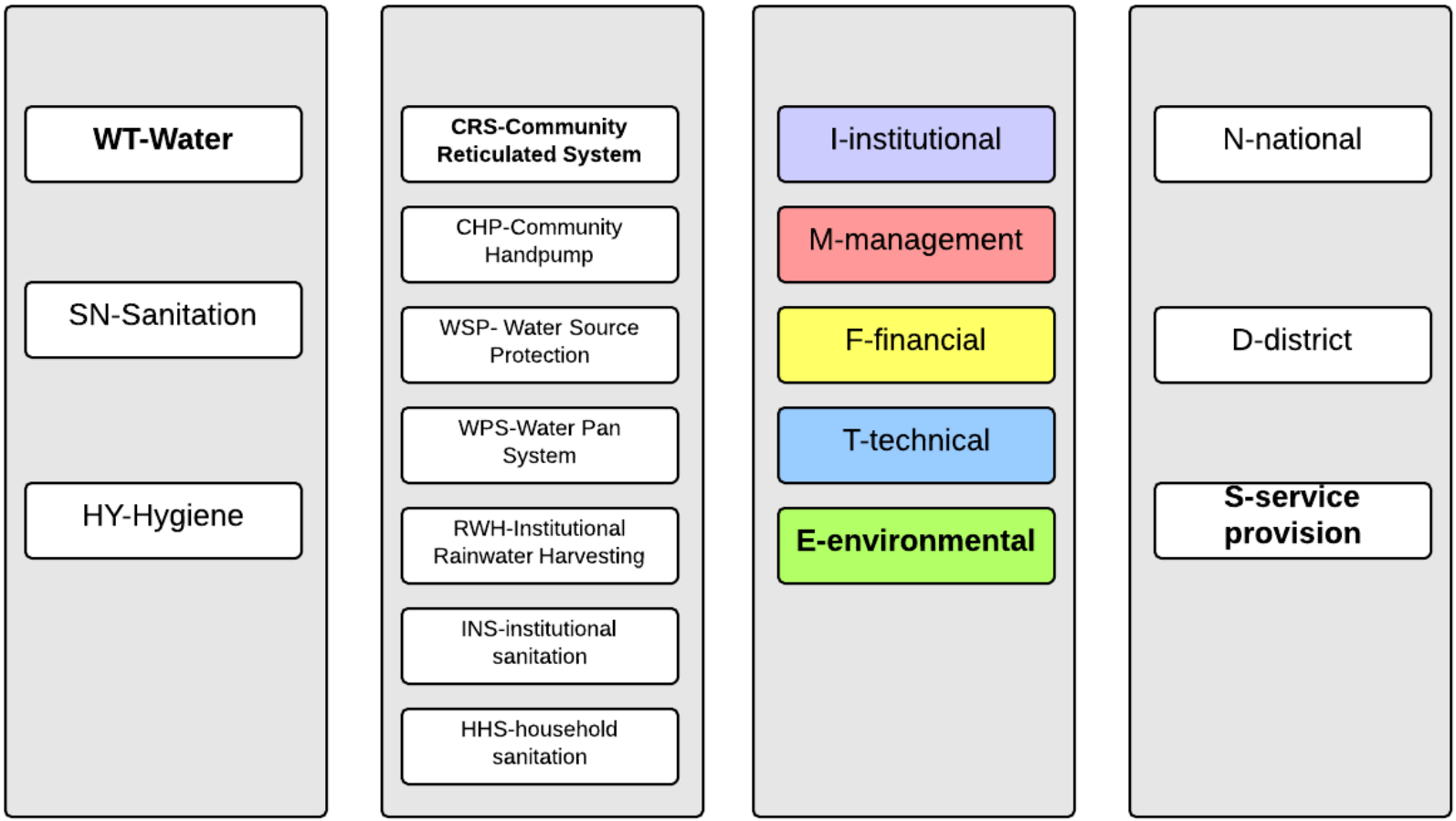
Administrative Level: Tanzania

WASH SIT Code	Administrative Level
N	Republic
	Region
D	District
	Division
	Local Ward
S	Village
	Sub-Village/Hamlet

SIT Reference Code



Indicator: WT-CRS-E-S1



Nomenclature

Component	Description	Code
Factor	5 for each indicator type	I, M, F, T, E
Indicator	1-4 per factor 14-23 per intervention type	1, 2, 3, 4
Sub-Indicator	Usually 4 per indicator	a, b, c, d
Question*	1-3 per sub-indicator	i, ii, iii**

*often the question is the same as the sub-indicator
** code isn't shown in framework

Sub-Indicators

Indicator

WT-CRS-F-S3	Primary Investigation Method	Triangulation	The water committee demonstrates effective financial management and accounting
WT-CRS-F-S3a	SP		a) Does the water committee keep financial records? (verify)
WT-CRS-F-S3b	SP		b) Does the committee have a bank account? (verify)
WT-CRS-F-S3c	SP	HH	c) Does the committee share financial records with the community on a regular basis?
WT-CRS-F-S3d	SP		d) Are financial accounts audited? (verify)

Sub-Indicators

Sources of Information or "stakeholders"
Service Providers and Households within Village or Sub-village

Questions

WT-CRS-F-S2	Primary Investigation Method	Tariff collection is regular and sufficient
WT-CRS-F-S2a	SP	a) Is the tariff collected on a regular schedule (e.g. on pay-as-you -fetch basis, or monthly household levies, instead of collecting money when there is a breakdown)?
WT-CRS-F-S2b	**SP**	**b) What is the annual revenue? (verify) What is the annual operating expenditure? (verify) Is the annual revenue greater than the annual expenditure?**
WT-CRS-F-S2c	SP	c) Is there a national/local target for collection efficiency (i.e. percent who regularly pay)
WT-CRS-F-S2d	SP	d) Do most (at least 80%, *or a proportion in line with national or locally set standards*) households pay the tariff? (*i.e. Are they achieving the specified collection efficiency*)

Sub-Indicator

Specific Questions

WT-CRS-F-S2b	**(i) What is the annual revenue?** Tshs_____(verify) **(ii) What is the annual operating expenditure?** Tshs._____ (verify)

Scoring

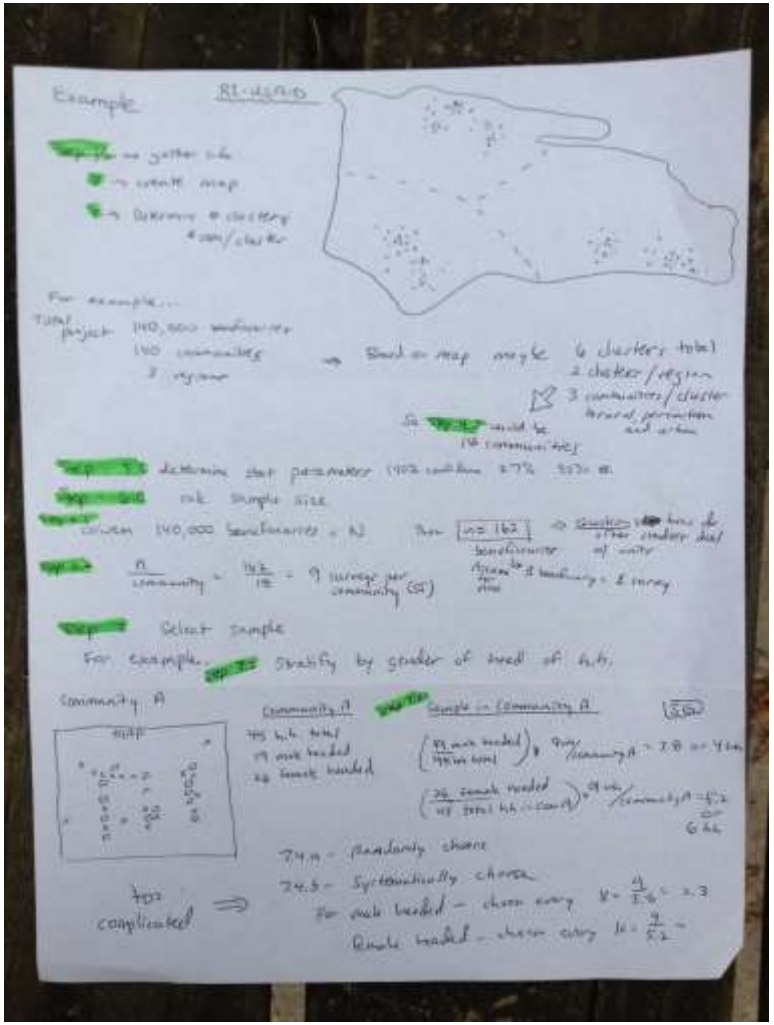
1. Field scoring- mark “Yes” or “No” (majority)
2. Post collection scoring:
   - Numerical data (must be analyzed, calc statistic)
   - Benchmark unknown or doesn’t exist
   - Capture valuable information

Application of the Sustainability Index Tool

Landscaping

- Range of intervention types
- Location of interventions (i.e. “community” or smallest administrative unit)
- Number of unique interventions

Statistical Design and Sampling



General Statistical Design

- **Focus on service provider**
- **Primary unit of analysis dictates:**
  - HH interventions (e.g. household latrines) target sample size (# HHs) statistically determined
  - Community interventions- (e.g.-community water systems) comprehensive inclusion (i.e. all water point management groups in community)
- **Best practice minimum sample size**
- **Heterogeneity:** inter-community is greater than intra-community
- **To overcome resource constraints - Less Is More:** to improve heterogeneity of SP and district responses, include more communities, but less HH in each community.
- **Stratification requires knowledge:** geographic stratification captures regional differences, rural/urban stratification also important

Sampling Strategy

- Literature review of sampling strategies (16 different assessments)
- Key distinction – this is not impact assessment

Impact Assessment	Sustainability Index Tool
Compare test to baseline/control	Understand context of intervention and risks/success factors
Focus on beneficiary/users	Focus on flow of **services** over time

Creating Questionnaires

- Each indicator question assigned a primary unit of analysis
- “Filter” tab in excel used to create questionnaires
- Some sub-indicators/questions are triangulated (multiple stakeholders)

Question Number	Primary Unit of Analyais	Triangulation	Indicator/Sub-Indicator
WT-CRS-I-SP1			**There is a water committee which has been constituted in line with national norms and standards**
WT-CRS-I-SP1e	SP	HH	e) Has the water committee been democratically elected with involvement of the entire community?
WT-CRS-M-SP1			**Representative water committee actively manages water point with clearly defined roles and responsibilities**
WT-CRS-M-SP1b	SP	HH	b) Does the water committee carry out all the roles required of it?
WT-CRS-M-SP2			**Water committee members actively participate in Committee meetings and decision making process and reporting is transparent**
WT-CRS-M-SP2d	SP	HH	d) Are technical, administrative and financial records kept and shared with the community on regular basis?
WT-CRS-F-SP3			**The water committee demonstrates effective financial management and accounting**
WT-CRS-F-SP3c	SP	HH	c) Does the committee share financial records with the community on a regular basis?

Contextualization

1. Important and time consuming
2. Multiple steps
   - General (sub-indicator separated into multiple specific question)
   - Adapt (insert local benchmarks/standards)
3. Engage local authorities and WASH experts

Pilot Test

1. Make sure to pre-test with survey team during training (questions flow)
2. Pilot test each tool
3. “Dry rehearsal”
4. Ensure that each question is interpreted the same
5. Sufficient time for feedback from survey team and modification of tools

Data Collection Methods

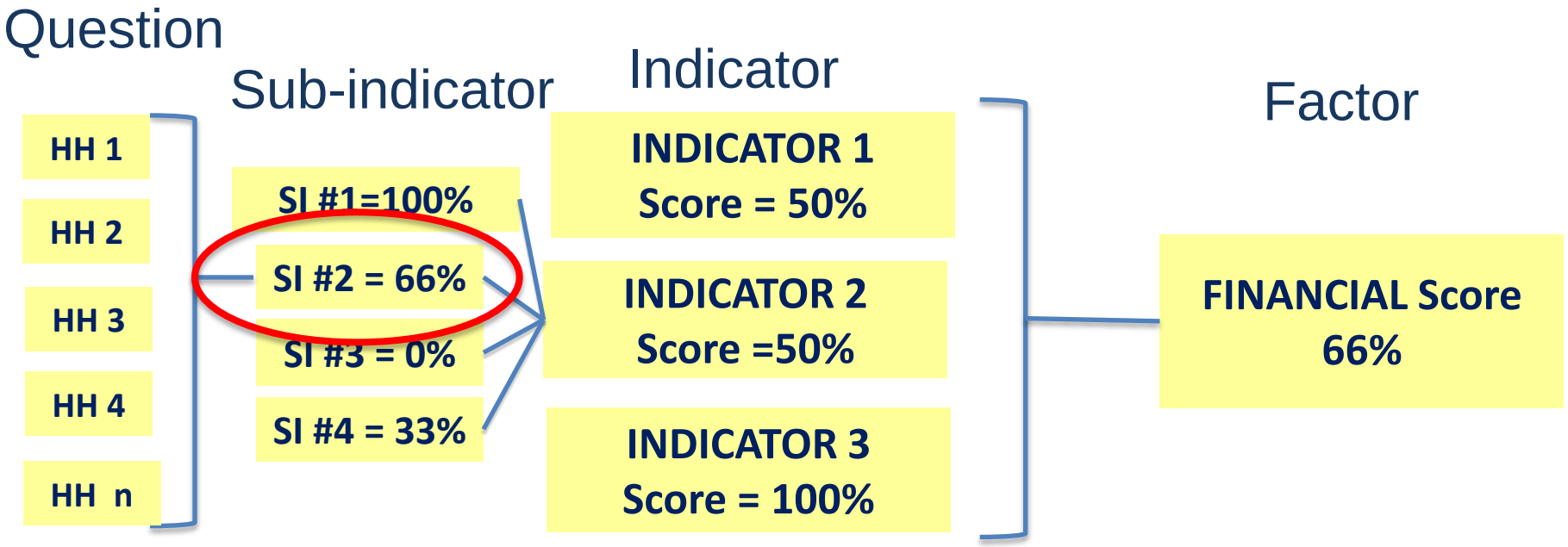
- Household surveys with observations
- System or facility observation and checks
- Key informant interviews: service providers, private sector suppliers, decentralised and national government
- Contract/bank account checks; document review of national policy, legislation and local by-laws

Data Collection Teams

- country coordinators and survey team leaders
- Teams of enumerators
- Two approaches to data collection:
  i. Paper
  ii. Digital handset

Data Analysis

- No=0 ; YES =1
- Household responses aggregated to single response (66% YES)
- Question responses aggregated to sub-indicator, and sub-indicator to indicator for each community and intervention type
- Indicator scores aggregated by factor by community by intervention

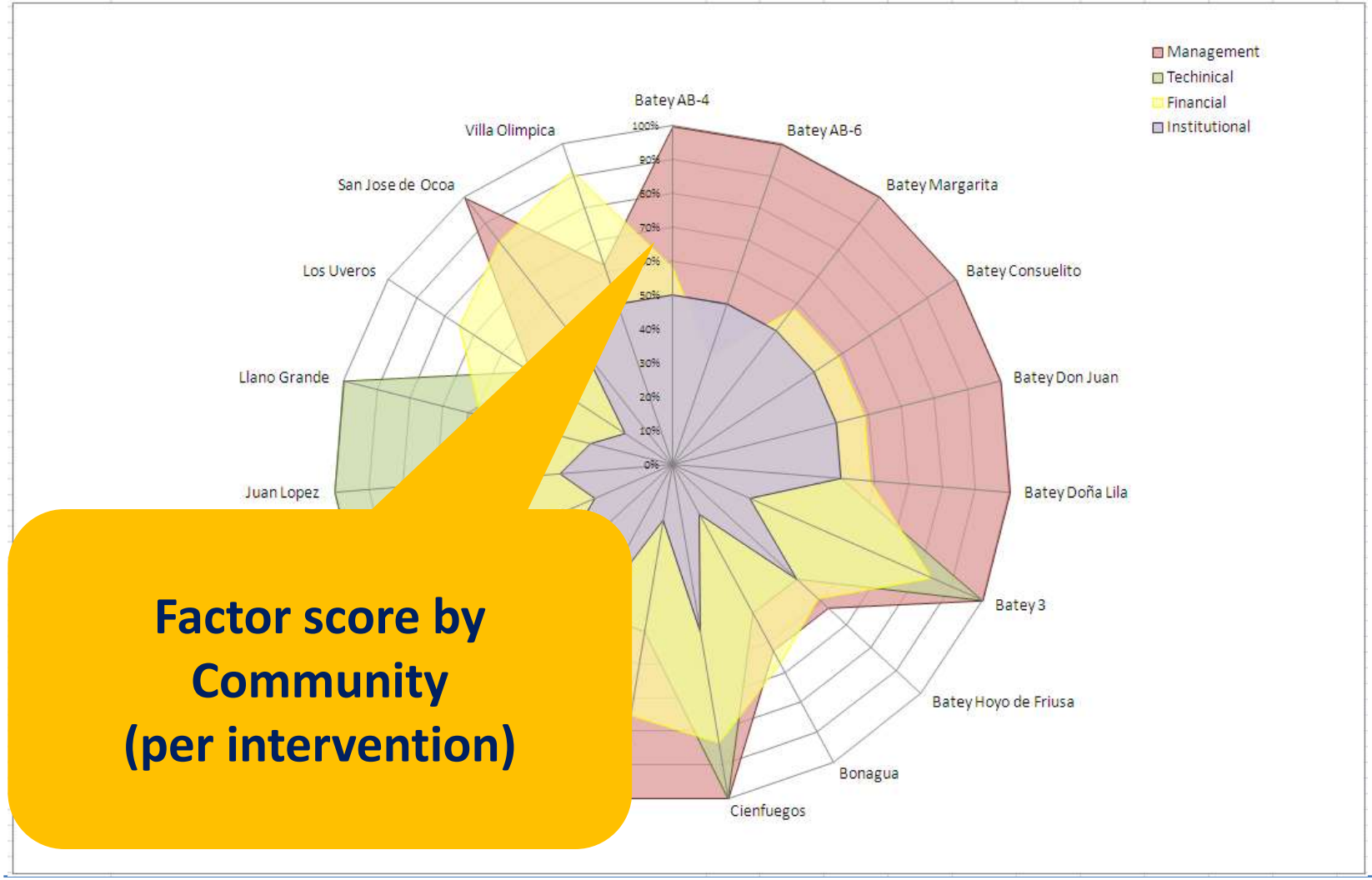


Data Analysis and Results

Important to consider:

- ✓triangulation rules
- ✓weighting factors (if and when)
- ✓generating graphs (manually done)

Results by Community

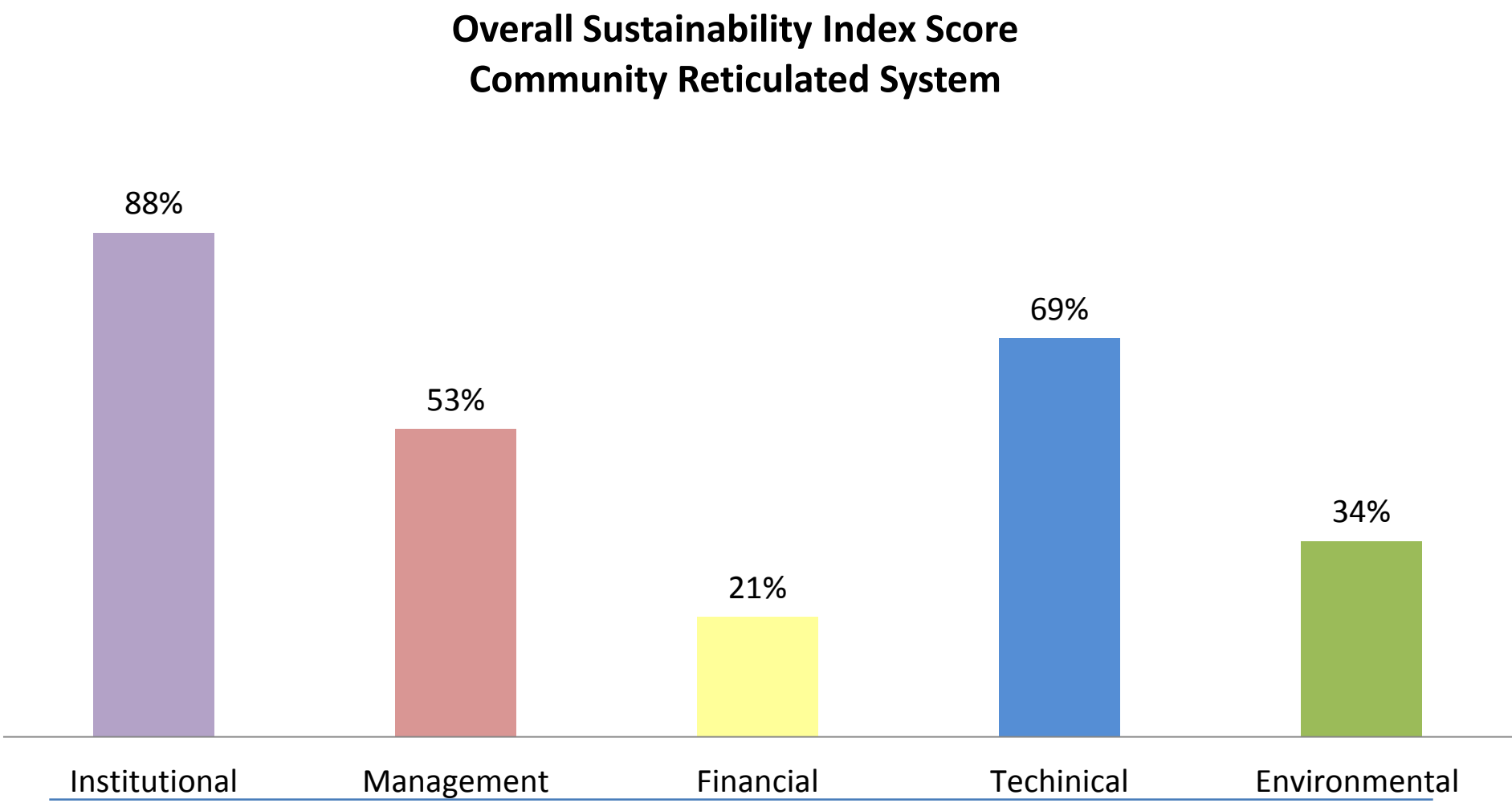


Factor score by Community (per intervention)

AGUACONSULT

USAID FROM THE AMERICAN PEOPLE

Results by Intervention Type



AGUACONSULT

USAID
FROM THE AMERICAN PEOPLE

Lessons learned from first iteration of Sustainability Index Tool

AGUACONSULT

USAID
FROM THE AMERICAN PEOPLE

Lessons Learned

- important to dedicate **sufficient time and resources** to contextualization
- **qualitative information** compliments quantitative outputs of the tool
- ***Sequencing matters*** – critical first step is to survey at higher levels to enable further contextualisation of lower level surveys
- Possible to collect **national level data as a "desk based"** exercise

Lessons Learned - Costs

- Excluding the cost of designing the tool, the assessment costs are ~ **$50,000 - $60,000 per sample country**

- Order of magnitude country cost - sampling of 5 interventions types in Ghana and 4 in the Dominican Republic

- Total number of beneficiaries of about 100,000 in each country and sample confidence level of 7%

THANK YOU

For further information see:

http://www.washplus.org/rotary-usaid

OR

Contact: Ryan Schweitzer

r.schweitzer@aguaconsult.co.uk