National WaSH Program

Monitoring Water Supplies and Sanitation in Ethiopia

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National WASH Inventory Office (NWI)

MoWE

April, 2013

Out line

National WaSH Program

I. National WASH inventory
II. Some key figures and additional benefits
III. Selected KPI Definitions and Computation Methods
IV. Draft Selected KPI Result based on ME-MIS
V. Problems/ issues
VI. Next Steps

I. National WASH Inventory

National WaSH Program

- *First of its kind in Ethiopia*
- *Grew from need to strengthen monitoring and evaluation in the WaSH sector*
- *Aims of the initiative*
  - *to provide baseline data for planning and various monitoring purposes*
  - *to establish the backbone of a reliable, sector-wide M&E system*
  - *to put an end to the dissimilarity over access figures*

Scope and process

National WaSH Program

What gets measured?

- ✓ *Rural community water supply schemes*
- ✓ *Rural household hygiene and sanitation*
- ✓ *Rural household drinking water use*
- ✓ *WASH in schools and health facilities (institutional WASH), and*
- ✓ *Urban water supply, sanitation and hygiene*

And how?

- ✓ *Steering committees established at federal level, regional, Zonal, Woreda and kebele level*
- ✓ *National WASH Inventory project office established at all levels*
- ✓ *Sensitization mission for administrators at all levels*

Continued….

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- ✓ *Awareness given to the community through mass media like national and local Radio, TV, and newspapers*
- ✓ *Training given for supervisors, nominators and data encoders: about 70,000 people have participated in NWI*
- ✓ *Data collected with approval of Kebele and Woreda administration*
- ✓ *Data entry is done at regional level using Access database*
- ✓ *Soft copy to national WASH inventory project office for the analysis of KPI*
- ✓ *Regions clean their data and undertake analysis with the support of WASH M&E MIS*

Current progress

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- *All regions (except Somali region) have completed data collection and data entry*
- *Regions are cleaning their data*
- *The MoWE has finished preliminary analysis of data using the Management Information Software (MIS)*
- *Up date the data started in regions*
- *Role out done for 58 woredas and will continue to others*
- *Procurement of server and computer is on progress*

III. Some key figures

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- ✓ *92,588 rural water supply schemes*
- ✓ *1,605 town water supply schemes*
- ✓ *30,000 schools*
- ✓ *20,000 health institutions*
- ✓ *12 million households asked about drinking water supply and sanitation*
- ✓ *More than 100 million birr spent (excluding format and manual printing, Access database/MIS, NGO and Regional input)*

Rural Water Supply Schemes

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Type of Rural Schemes	Tigray	Afar	Amhara	Oromiya	Benshangul/gumuz	SNNP	Gambela	Hareri	Dire Dawa	**Total**
Deep Well with Distribution	159	83	338	1,625	6	477	17	7	23	**2735**
Hand Dug Well with Normal Pump	5,349	273	19,291	5,749	1,457	1,708	166	219	17	**34,229**
Hand Dug Well with Rope Pump	171	398	3,699	1,036	38	179	36	81	1	**5639**
Other	110			527		5,709				**6346**
Protected on-spot Spring	690	66	9,643	10,975	38	2,999	94	47	44	**24596**
Shallow Well	2,906	126	1,667	2,030	213	871	245	31	17	**8,106**
Spring with Distribution Small	468	362	2,958	2,637	31	4,259	11	45	166	**10937**
Total	**9853**	**1308**	**37,596**	**24,579**	**1783**	**16,202**	**569**	**430**	**268**	**92588**

Additional benefits

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- *Integrating many WASH actors*
  - *the NWI has been a force for integration i.e. both between different levels of government and within each administrative level.*
  - *enhanced cooperation with CSOs*
  - *allowed lower levels of government to engage with communities*
- *Data retained at woreda level*
  - *assists woreda officials with planning and maintenance work*
  - *Feedback from woreda staff also indicates that the NWI generated vast amounts of informal knowledge at woreda level*

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IV. Selected KPI Definitions and Computation Methods

RURAL

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- **Access**
  - ***Definition*** *:- % of rural population that is provided access to 15 l/c/d water within 1.5 km of the water supply point*
  - ***Computation*** *(Number of beneficiaries that have accessed and could access 15 l/c/d water within 1.5 km of the water supply point , including repairable non-functional water supply schemes/ Total population from CSA) x 100 (%)*
- **Usage**
  - ***Definition*** *:- % of rural population that is actually using water from the water point irrespective of quantities used and distance from the water point*
  - ***Computation*** *:- (Number of beneficiaries actually using water from water supply point: as per the data from the annual inventory of water supply schemes / Total population from CSA) x 100 (%)*

URBAN

National WaSH Program

- **Access**
  - ***Definition*** *% of urban population that is provided access to 20 l/c/d improved water from the domestic/household water consumptions inventory*

  Data Needed *A = Domestic Water Consumptions*

  B = Total population from CSA

  - ***Computation*** *((A*1000)/(365*20))/B) x 100 (%)*
- **Usage**
  - ***Definition*** *% of population served by the water supply utilities*

  Data Needed *A = Served Population*

  B = Total population from CSA

  - ***Computation*** *(Served Population/ Total number of people) x 100 (%)*

Functionality of rural schemes

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- ***Definition***
  - ***% of Functional rural water supply schemes***
- ***Computation***
  - ***Number of functional schemes/ Total number of water schemes x 100 (%)***

Health Institutions- WaSH

National WaSH Program

- **Access to Latrine Facilities**
  - ***Definition :-*** *% of Health Institutions having access to Latrine Facilities*
  - ***Computation :-*** *(Total No. of Health Institutions having access for Latrine Facilities/ Total No. of Health Institutions in required area) x 100 (%)*
- **Access to Water Supply**
  - ***Definition :-*** *% of Health Institutions having access to water supply*
  - ***Computation :-*** *(Total No. of Health Institutions having access to water supply/Total No. of Health Institutions in required area) x 100 (%)*

School – WaSH

National WaSH Program

- **Access to Latrine Facilities**
  - ***Definition*** *:- % of Schools having access to Latrine Facilities*
  - ***Computation*** *:- (Total No. of Schools having access for Latrine Facilities/ Total No. of Schools in required area) x 100 (%)*
- **Access to Improved Latrine Facilities**
  - ***Definition*** *:- % of Schools having access to Improved Latrine Facilities*
  - ***Computation*** *:- (Total No. of Schools having access for Improved Latrine Facilities/ Total No. of Schools in required area) x 100 (%)*
- **Access to Water Supply**
  - ***Definition*** *:- % of schools with Drinking Water Supply*
  - ***Computation*** *:- (Total No. of schools with Water Supply /Total number of schools in the required area) x 100 (%) Draft KPI Results*

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V. Selected KPI Result based on ME-MIS

NATIONAL LEVEL WATER SUPPLY Access

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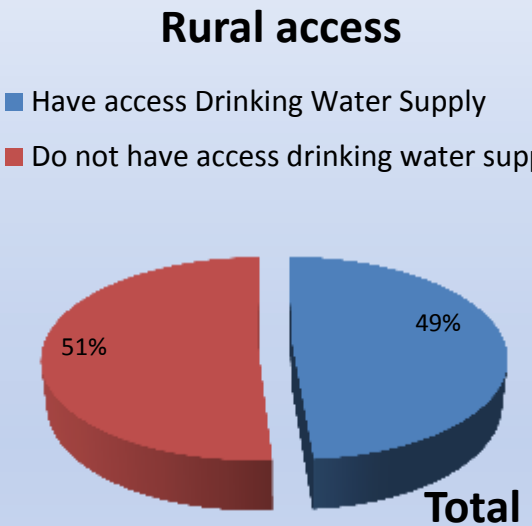
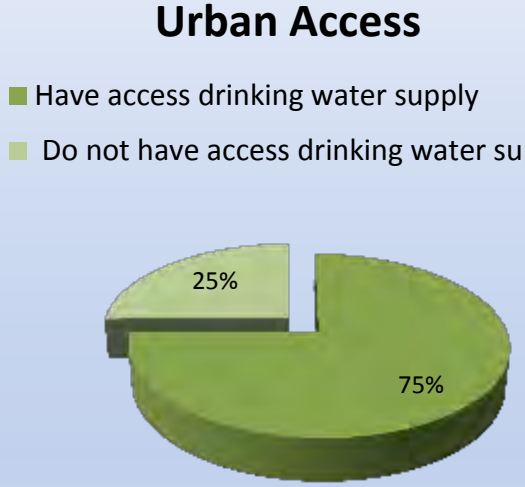
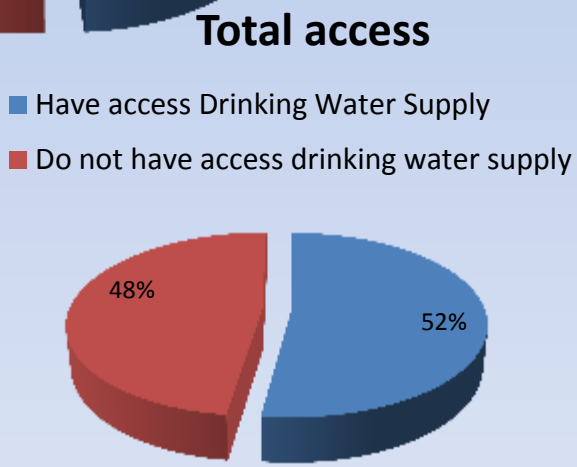
Rural access



Urban Access



Total access



NATIONAL LEVEL WATER SUPPLY Usage (Based on SI)

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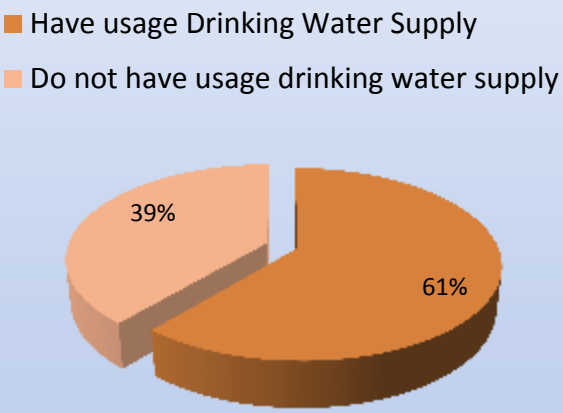
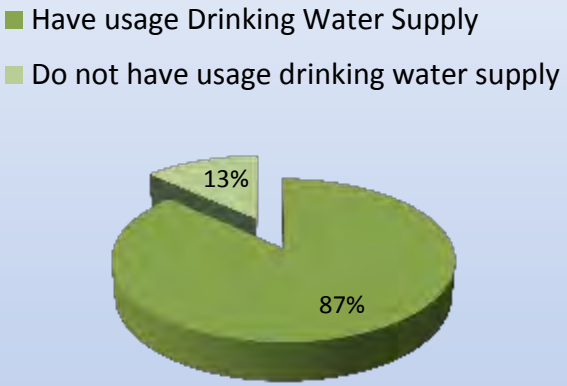
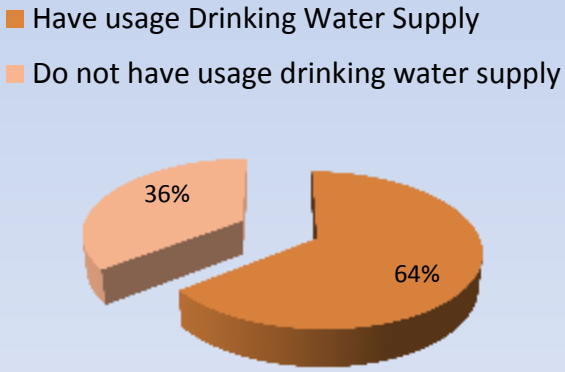
Rural Usage



Urban usage



Total usage



NATIONAL LEVEL Health Institution WASH (Based on SI)

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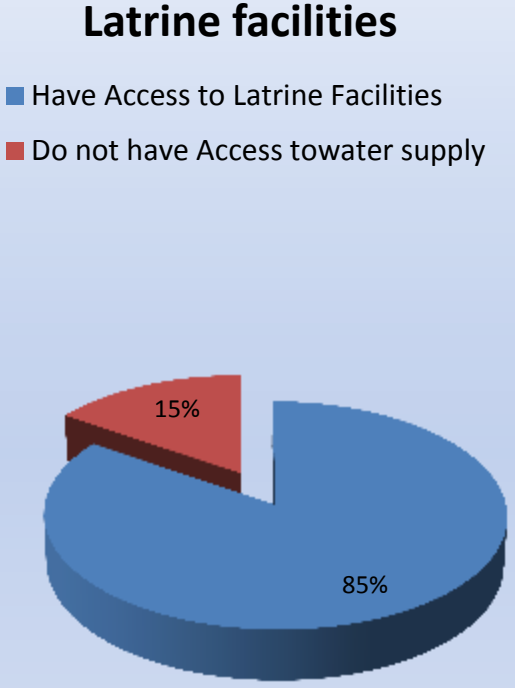
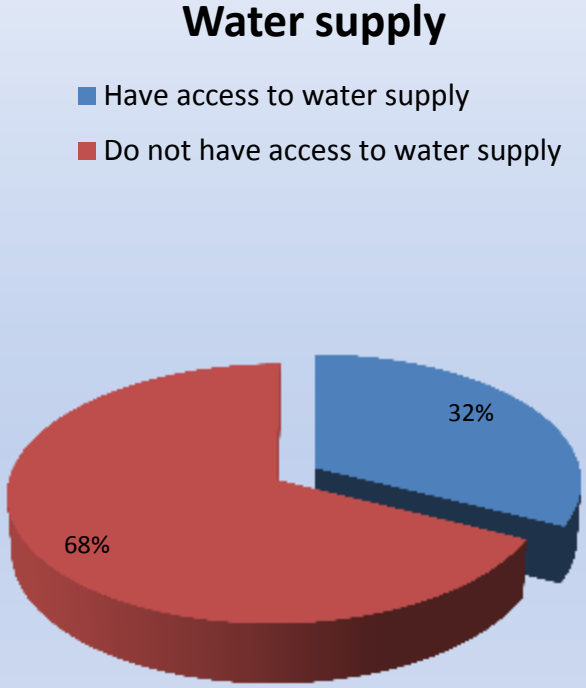
Latrine facilities



Water supply



NATIONAL LEVEL School WASH (Based on SI)

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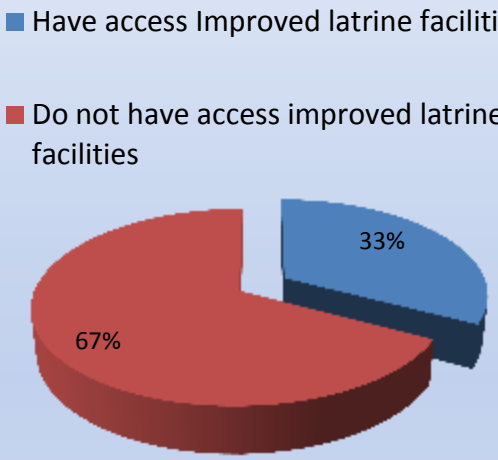
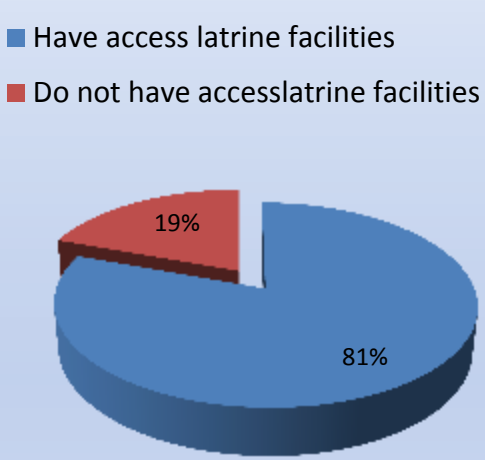
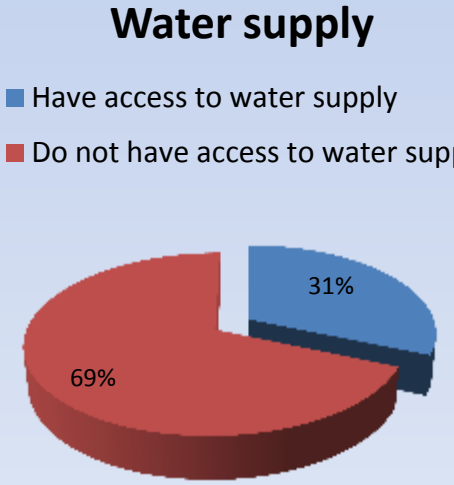
Improved Latrine facilities



Latrine facilities



Water supply



Access to latrine facilities (based on household inventory)

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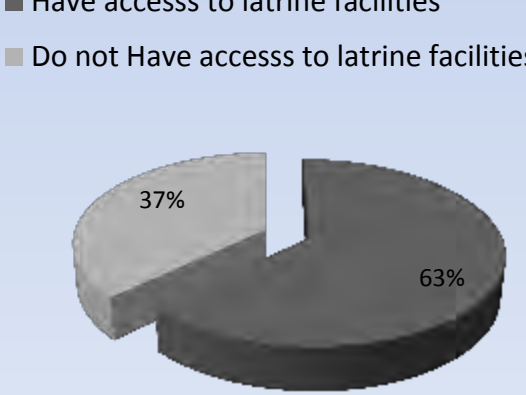
National Urban

National Rural

National Urban and Rural



Access to Drinking water (based on household inventory)

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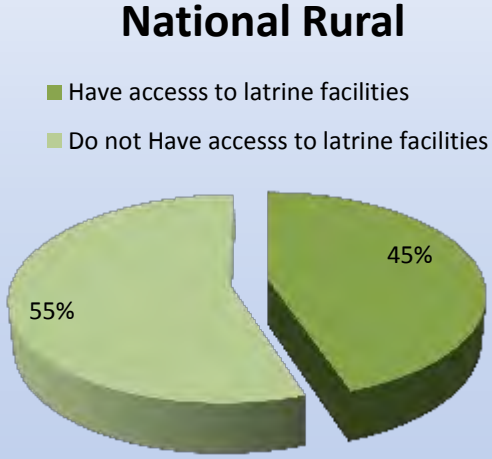
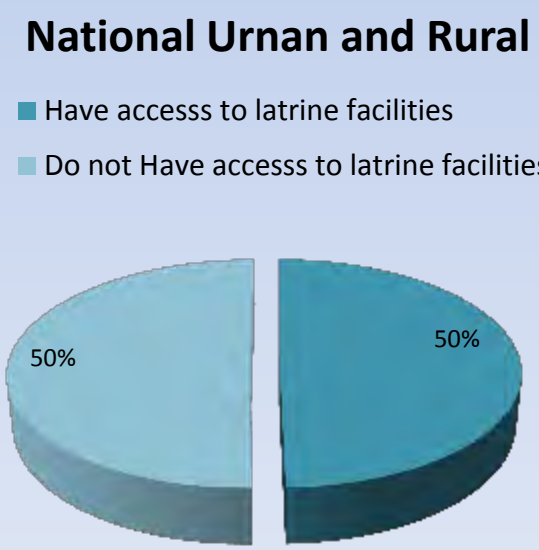
National Rural



National Urban

National Urnan and Rural



Comparison of findings

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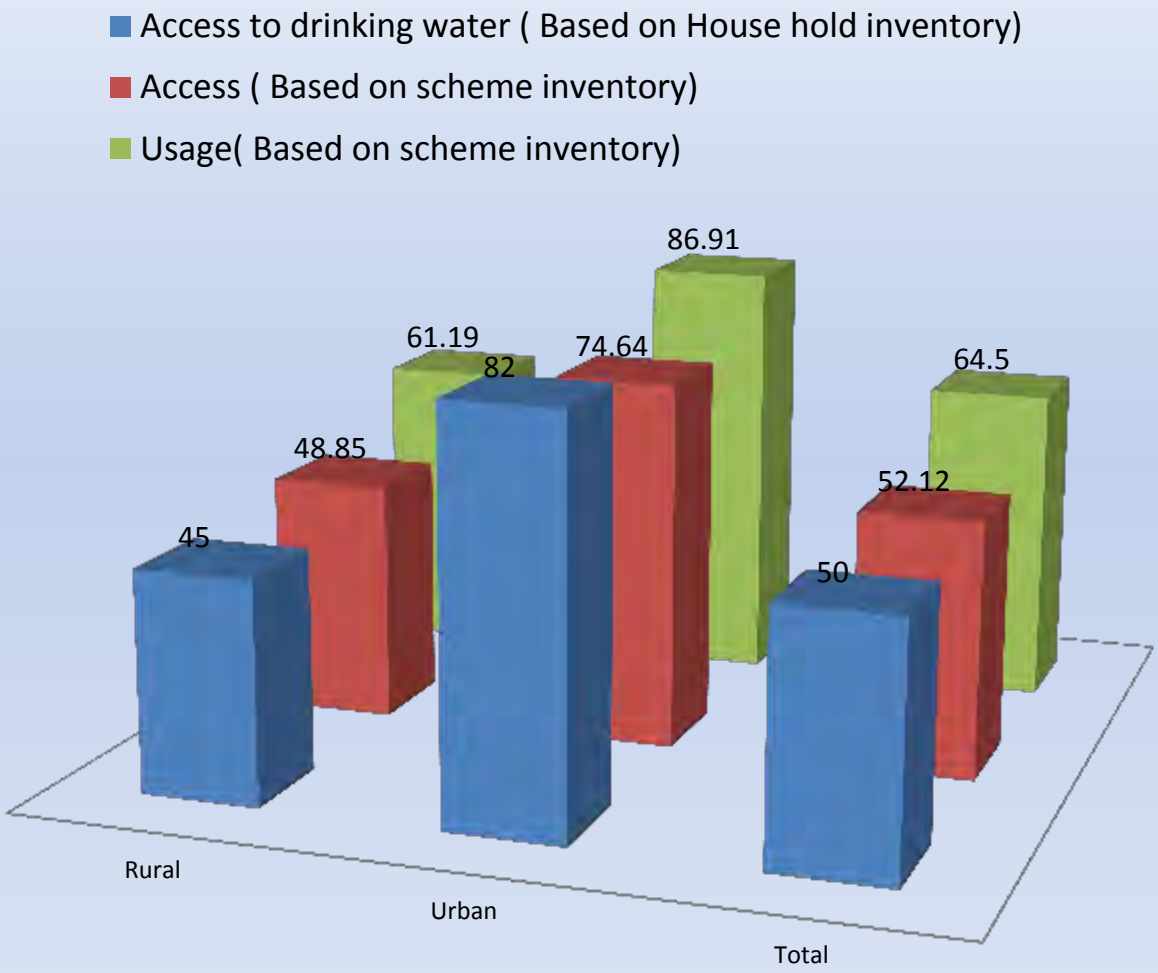

REGIONAL LEVEL WATER SUPPLY –Rural

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No	Region	Access (With in 1.5 Km)	Usage
1	Tigray	52.74	69.21
2	Afar	34.79	71.59
3	Amhara	51.58	62.83
4	Oromiya	49.76	61.61
5	Benishangul	59.68	64.87
6	SNNP	42.02	55.50
7	Gambela	64.73	76.55
8	Harar	65.11	68.63
10	Diredawa	75.63	94.43

Functionality status of Rural Water Supply Schemes

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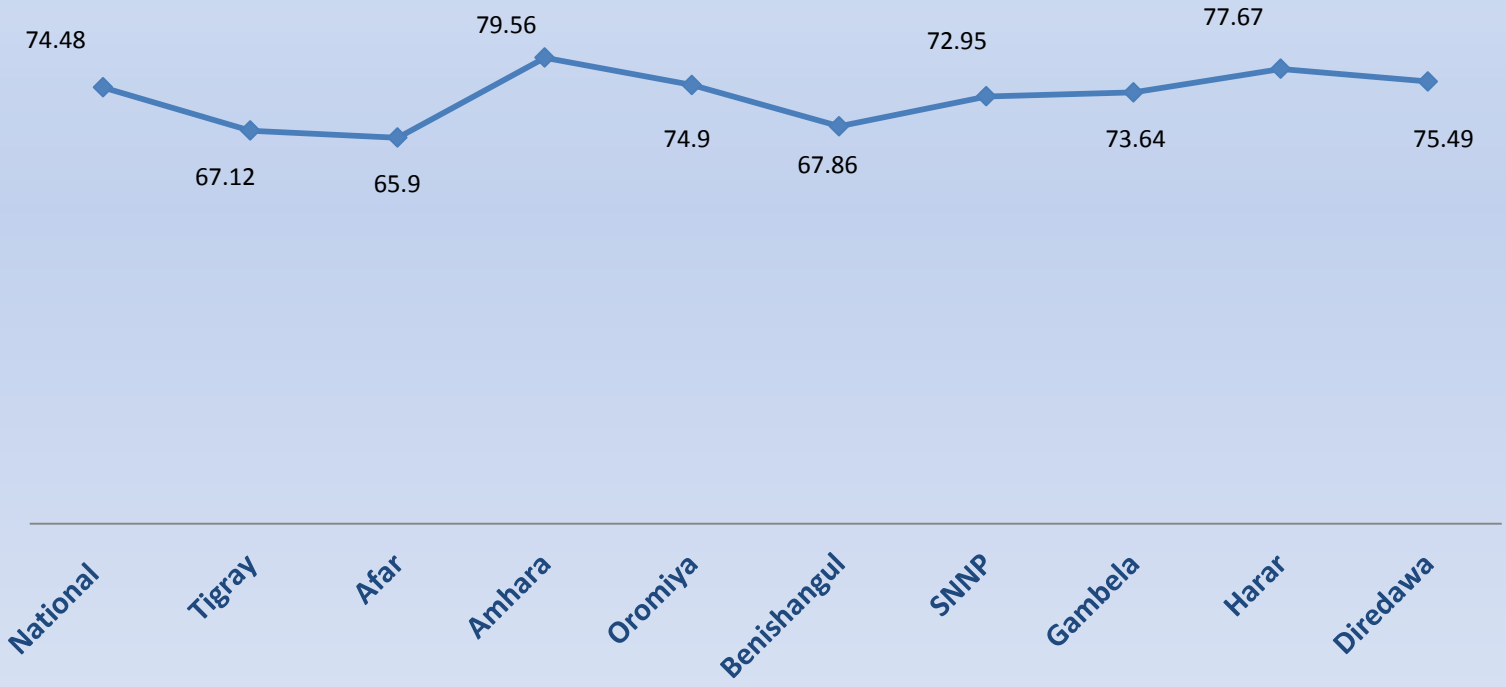

REGIONAL LEVEL WATER SUPPLY – Urban

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No	Region	Access (Dom. Consum. 20l/c/d)	Usage (Served Pop.)
1	Tigray	68.44	73.78
2	Afar	82.14	85.38
3	Amhara	65.43	93.28
4	Oromiya	75.38	71.84
5	Benishangul	46.24	78.45
6	SNNP	65.11	84.08
7	Gambela	80.23	83.15
8	Harar	99.99	100.00
9	Addis Ababa	82.22	94.10
10	Diredawa	87.57	90.00

Drinking Water access in the house hold

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No	Region	Rural	Urban	Total
1	Tigray	53.93	71.71	57.84
2	Afar	-	-	-
3	Amhara	46.04	74.25	47.53
4	Oromiya	41.64	71.6	45.11
5	Benishangul	37.3	16.29	36.78
6	SNNP	52.26	89.31	54.1
7	Gambela	44.66	79.69	46.44
8	Harar	-	-	-
9	Addis Ababa	-	96.16	96.16
10	Diredawa	-	-	-
	National (only for available data)	44.69	82.48	49.62

Access to Latrine facility of house hold

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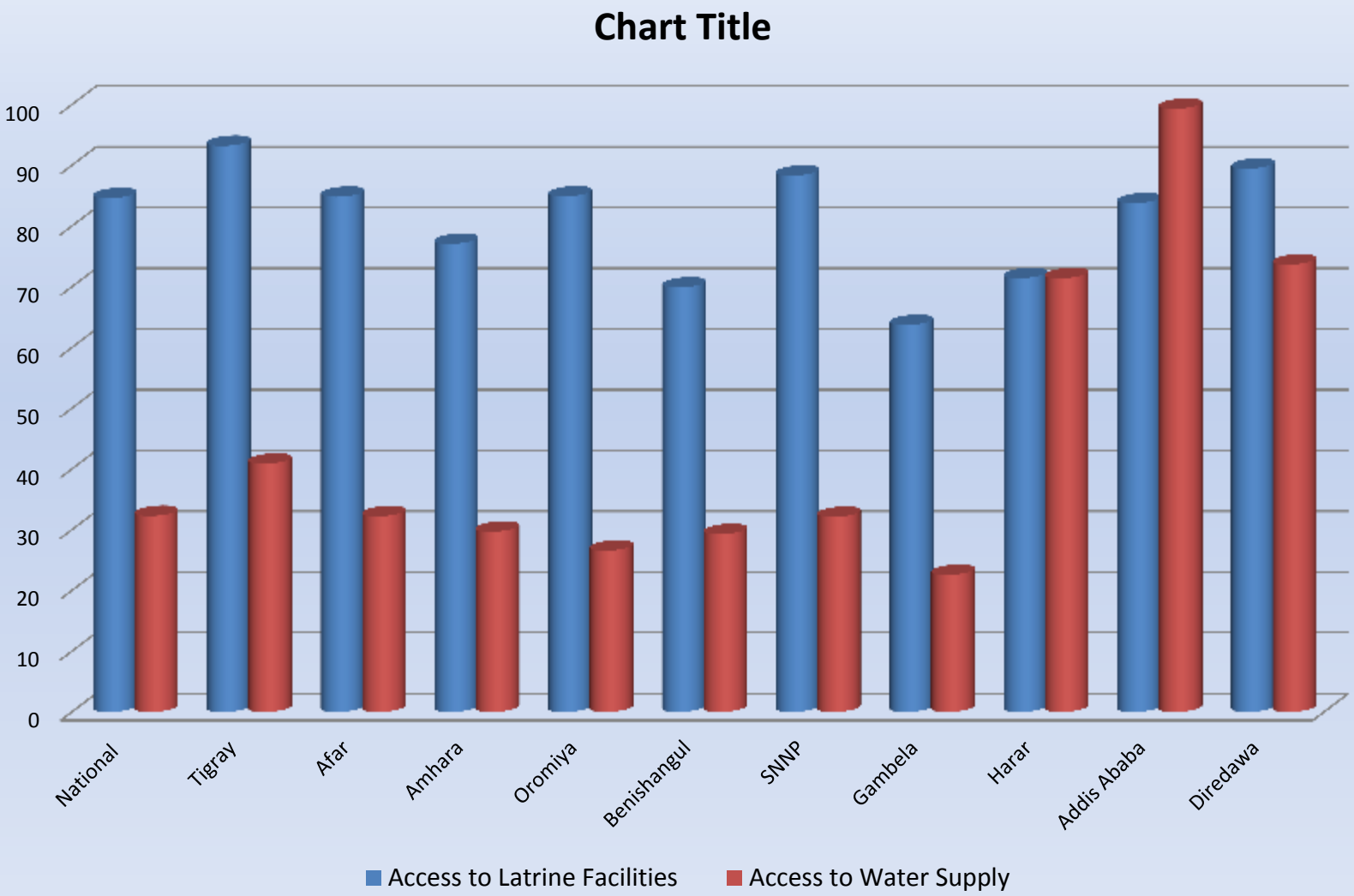
No	Region	Rural	Urban	Total
1	Tigray	54.17	80.77	59.94
2	Afar	51.17	-	51.17
3	Amhara	63.11	78.11	63.71
4	Oromiya	48.47	70.10	50.19
5	Benishangul	57.13	98.1	58.31
6	SNNP	74.25	94.50	75.04
7	Gambela	29.21	73.09	35.87
8	Harar	56.21	53.50	54.17
9	Addis Ababa	-	92.27	92.27
10	Diredawa	53.68	100	84.67

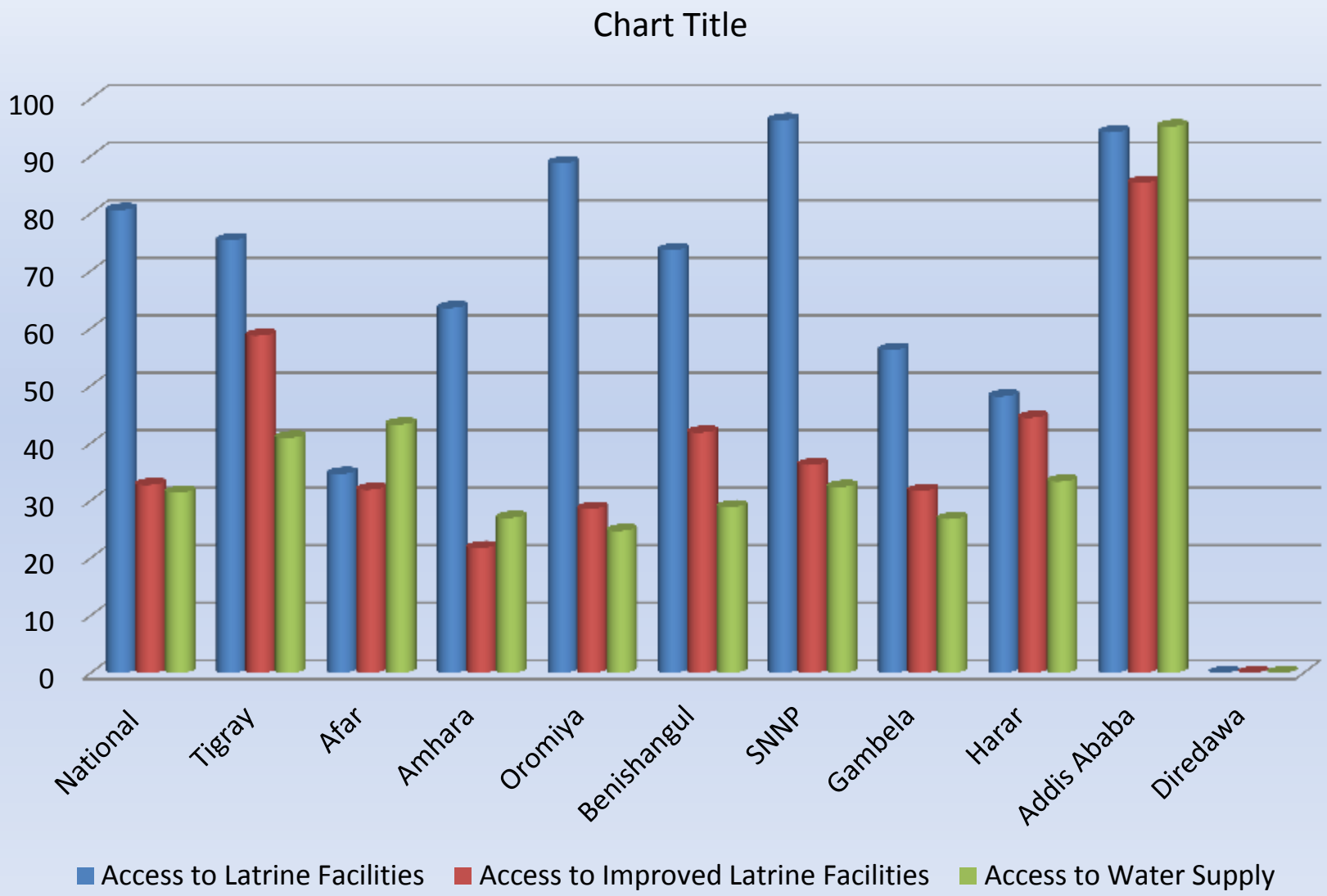
HEALTH INSTITUTIONS WASH

National WaSH Program



SCHOOL WASH

National WaSH Program



Different reports, different figures

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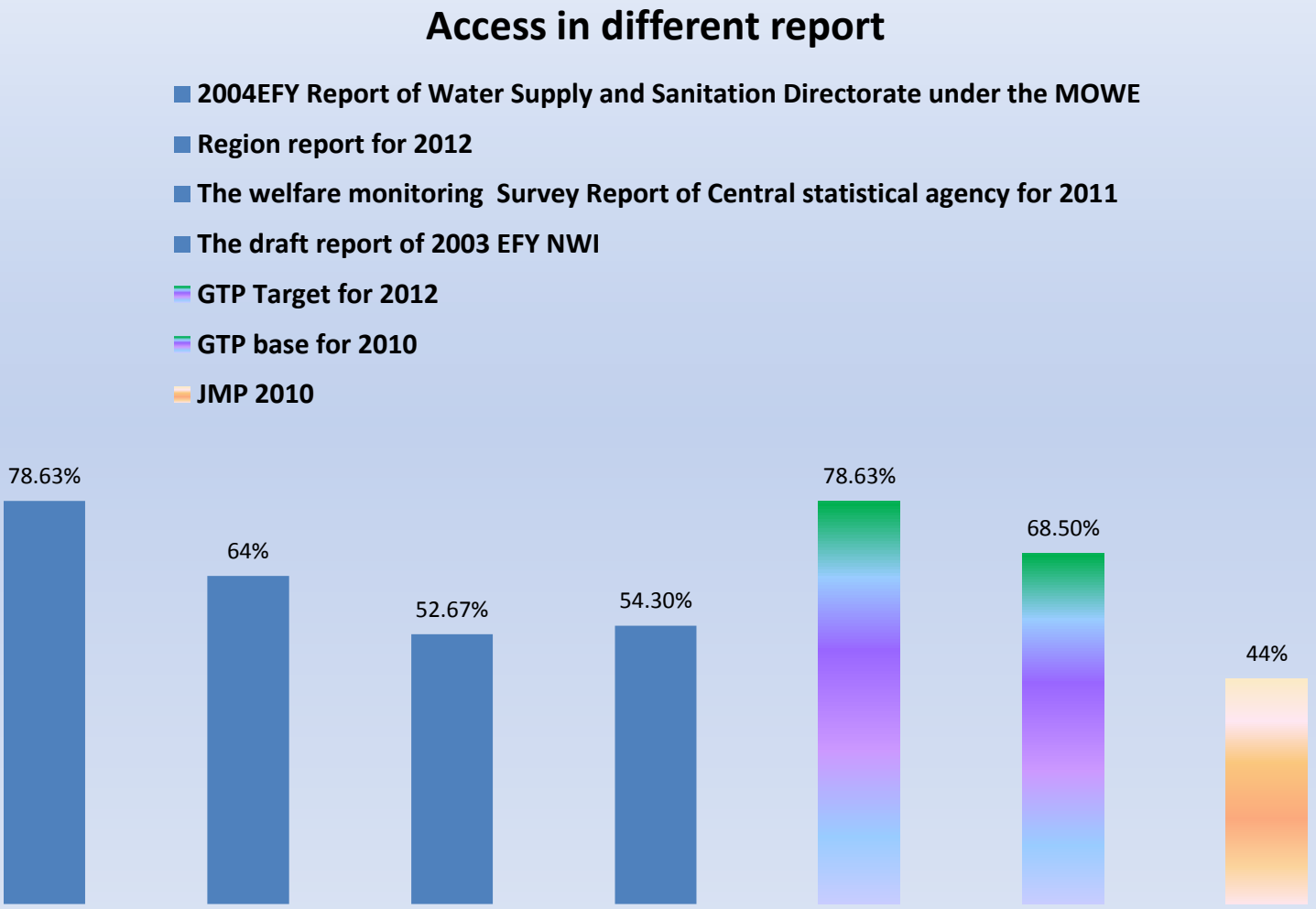

VI. Problems/ issues

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- ***Data Collection:***
  - The **number of forms** produced.; Regions had a shortfall of forms, especially forms 4 & 5
  - The **nature of the forms**. it would be better if forms 4 and 5 were consolidated into a single form to avoid repetition of Household names etc at both the data collection and data entry phases.
  - **Missing GPS data**: There were problems with recording the GPS coordinates of schemes. there was some confusion in using the UTM reading styles and additional GPS training was given. Roughly 33% of schemes do not have GPS coordinates and about 15% of schools and health centres are also missing this data. The reasons for this were
    - A lack of training and experience in using the GPS equipment and

Con…

National WaSH Program

- **Other missing data**.: yield, functionality status, the number of households within 1.5km of the water source, health type, latrine type, and water supply type, some schools don't have information on the number of students in the school.
- **Timing** of the NWI. The fact the NWI was carried out in the rainy season and this caused challenges for the enumerators. This meant that often in the day the farmer was on their farm land and the enumerator had to find the farmers on their land.
- **Other logistical challenges.** there were initial worries about a lack of vehicles for data collection but NGOs contributed to providing vehicles. Also there were delays in the sending of budget to some regions.

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- ***Data Entry:***
  - **Delays in starting data entry:** Although data entry started in September there have been delays due to the lengthy procurement process of computers and network installation.
  - **Duplication** of kebeles unique identifiers: In Oromia there were problems initially with the data entry software allowing Kebeles with similar names to be entered under the same unique identifier. This was solved by putting all 7276 kebeles into a single main table and giving each the unique identifier that CSA has for them.
  - **The time consuming business of forms 4 & 5:** The biggest obstacle to successful data entry is the sheer number of forms to be entered. In Oromia alone there are 5.2 million Households to be entered

VII. Next Steps

National WaSH Program

- **Reviewing completeness:**, if the NWI is to be truly national the Somali region inventory must be undertaken.
- **Data Cleaning by Regions:** Data should be sent to the Central Statistical Authority (CSA) for verification.
- **Verification:** NWI data needs to be assessed in terms of quality and completeness. means that the NWI data will be verified *by the Central Statistical Agency.*
  - The CSA has a Data Quality Directorate, which is mandated with certifying the quality of any data that is to be published as a National Statistic.
  - Data quality can only be measured by doing field based sample verification

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- **Household Data:** The time consuming business of forms 4 & 5', entering forms 4 & 5 which represent household level data is taking a long time unless a substantial amount more money is invested in the data entry process.
  - So that we recommend entering only kebele-level summaries.
  - CSA is expecting household level data and although Kebele summaries will not be as accurate as household level data the accuracy of the kebeles summaries can be checked with sampling.

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- **Data Analysis:**
  - Now the data has been entered and preliminary analysis done by the MoWE using MIS software.
  - Although final analysis must use verified data from CSA, the NWIPO will use the preliminary data at the moment.
  - At a later stage, analysis training will be rolled out to regions to allow them to produce Woreda Report Cards.

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- **Reporting/Statistical abstracts**
  - After analysis reports and statistical abstracts will be produced for the national and regional level.
  - These statistical abstracts will have disaggregated data which will be used by regions and at the national level.
  - Reporting will be according to the 15 key performance indicators for the WASH sector.
  - After analysis reports and statistical abstracts have been produced there has to be:
    - A concept note must be developed for final NWI publication
    - Data access by different levels and third parties must be immediately clarified

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- **Sustainability**
  - The NWI establishes base line data for the WASH sector, but this must be regularly updated. The things that need to be done to ensure this happens:
    - All sector stakeholders should come together to discuss both their data needs as well as available resources for updating.
    - A second aspect is putting the collected data into active use. This will require training (on evidence based planning etc) to be rolled out to the woreda level at least.

THANK YOU

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