

# Managing data for better Rural WASH



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# Presentation Outline



1. Description of the context
2. Key Issues
3. Stakeholders in WASH decision making
4. Decision making process
5. Challenges
6. Lessons Learnt

# 1. Description of the context



- Ethiopia's water supply and sanitation coverage levels have significantly improved in recent years from 19% and 4% in 1990 to **59%** and **60%**, respectively, in 2017.
- However, there are still wide disparities and inequalities in progress and coverage levels among the regions as well as between urban and rural areas.
- Amhara National Regional State (ANRS) constitutes about **22.4%** of the total population of Ethiopia (**82 million**)
- Rural water supply and sanitation coverage in Amhara Region stood at 43.2% and 42.2%.

## Location of The WASH intervention (Amhara Integrated WASH – AIRWASH)

Country: **Ethiopia**

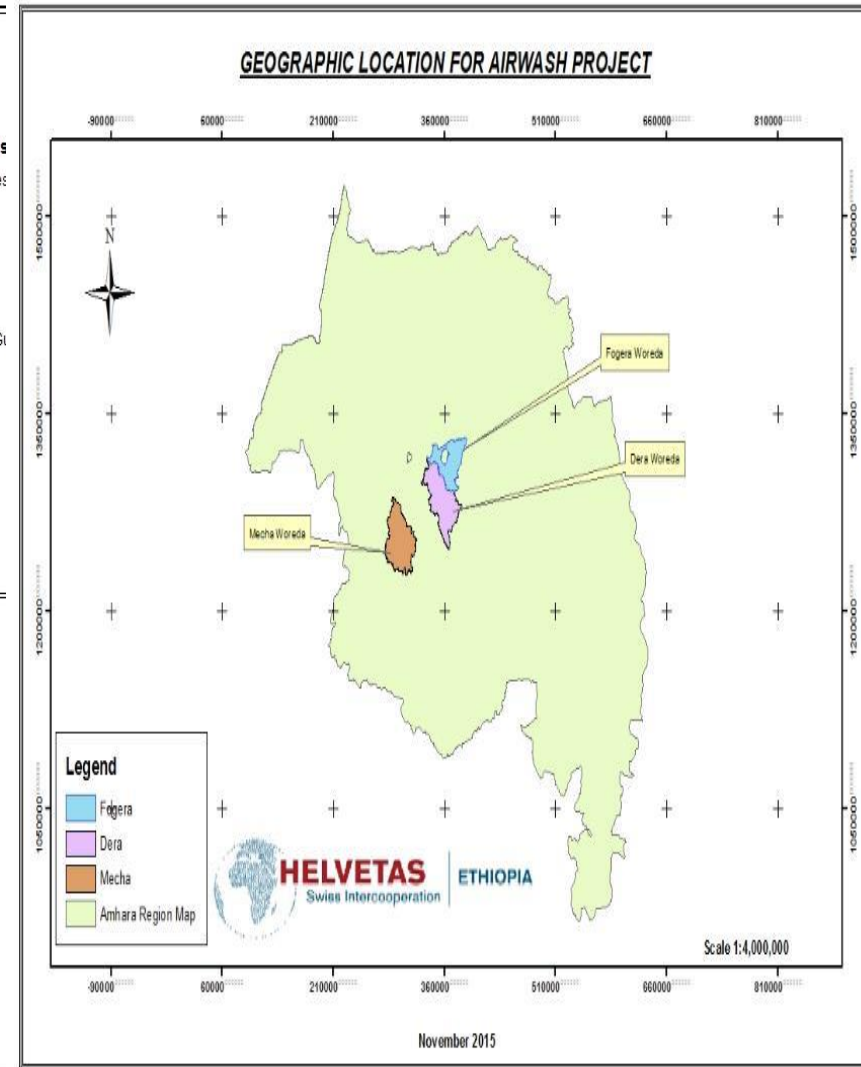
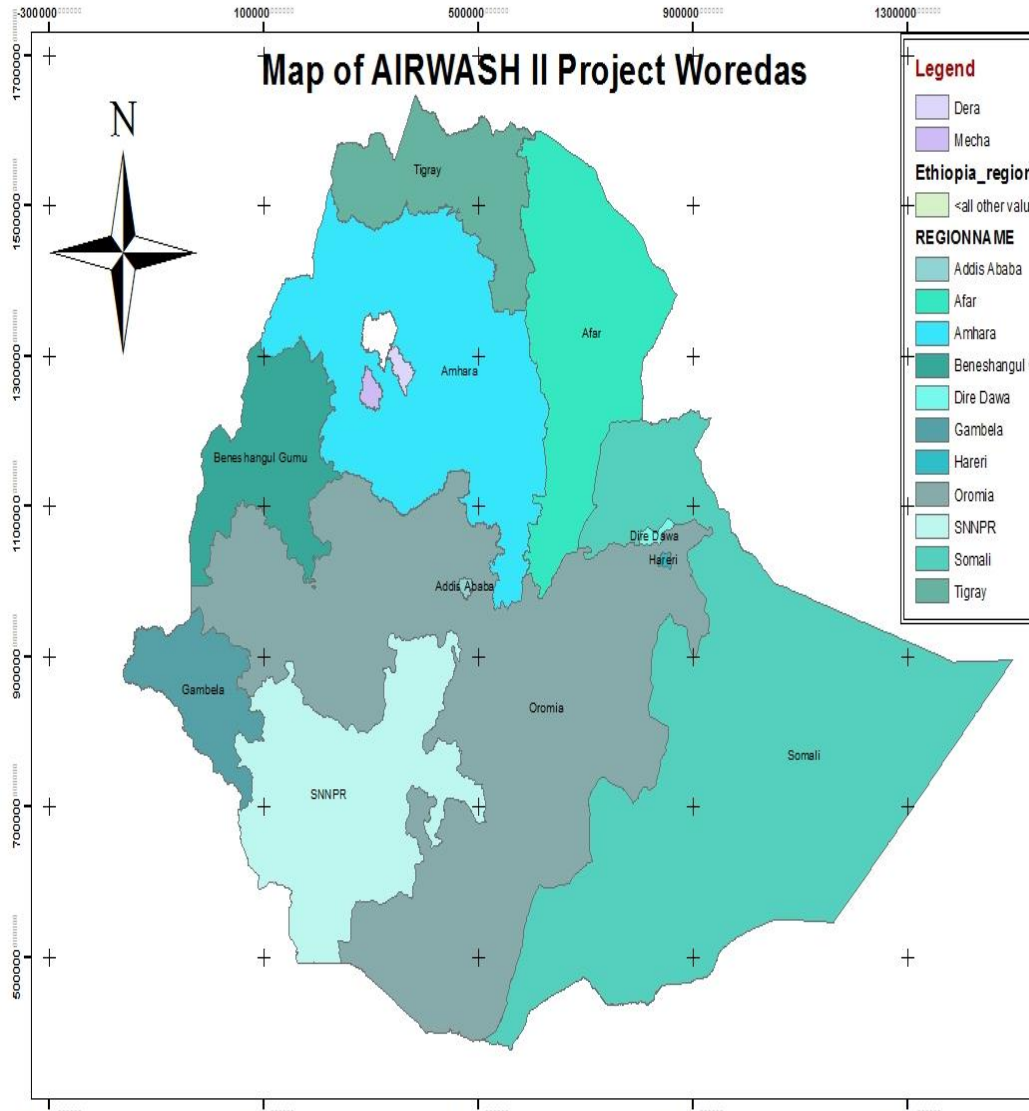
Regional State: **Amhara**

Zone: South **Gondar**

Districts: **Dera, Fogera and Mecha**

District	Total Population
Dera	326,006
Fogera	321,922
Mecha	371,110

# Geographical Location



# Rationale for Intervention



- ❑ Decision-making can only be as good as the underlying information.
- ❑ **A WASH Sector Assessment made by HSI in 2012/13** in Amhara Region.
- ❑ In response to the local government and community high demand for WASH intervention in the HSI operational areas in the Amhara Region.
- ❑ **Criteria and data used to make decisions in selecting Districts**
  - ✓ Estimated population without access to safe water supply and basic sanitation
  - ✓ Incidence of water borne diseases
  - ✓ Visible on-going Woreda level initiatives in the WASH sector;
  - ✓ Potential to create synergies and complementarities among WASH actors and other on-going HELNETAS projects in the region.

# Data from the assessment for intervention decision



S.No	Woreda	Number of schemes/Functionality	Improved Hand Dug Wells	Developed Springs	Shallow Wells	Deep Well (mortised)	Spring sources (Motorized)	Total
1	Dera	Functional	552	70	17	3		642
		Non-Functional	138	10	2			150
		Total	690	80	19	3		792
		% Functional	<b>80.0%</b>	<b>87.5%</b>	<b>89.5%</b>	<b>100.0%</b>		<b>81.1%</b>
2	Fogera	Functional	448	9	6	0		463
		Non-Functional	225	9	4			238
		Total	673	18	10	0		701
		% Functional	<b>66.6%</b>	<b>50.0%</b>	<b>60.0%</b>	<b>0.0%</b>		<b>66.0%</b>
3	Mecha	Functional	601	70	61	3	1	736
		Non-Functional	12	4	4	0	0	20
		Total	613	74	65	3		755
		% Functional	<b>98.0%</b>	<b>94.6%</b>	<b>93.8%</b>	<b>100.0%</b>		<b>97.5%</b>

# Socio-economic Conditions

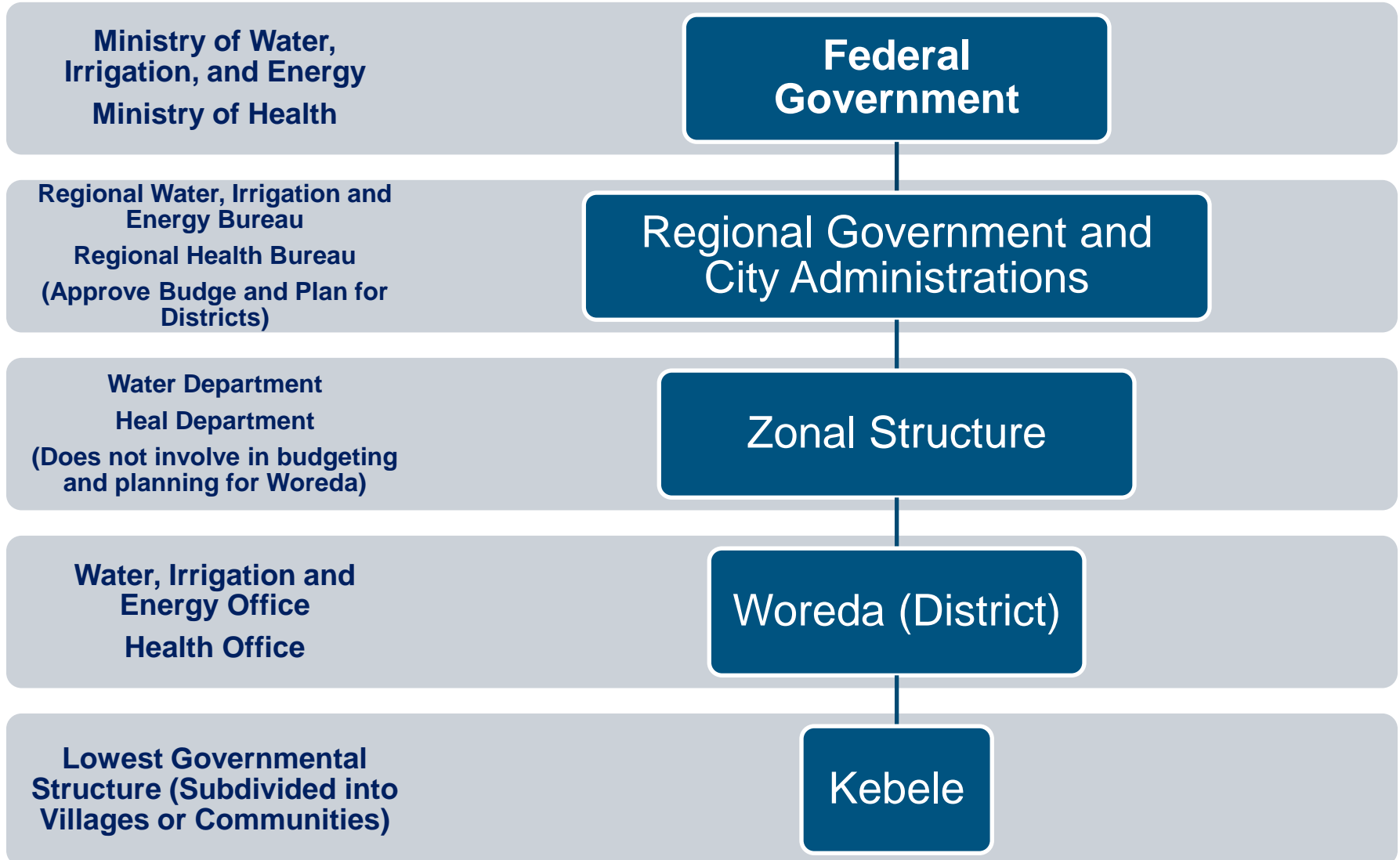


- ❑ Population dwelling or residing in the Districts is from Amhara ethnicity
- ❑ Language is Amharic
- ❑ 99% are Orthodox Christians and the rest 1% of the populations are Muslims
- ❑ 88.5% of the Woreda Population lives on Agriculture, 1.7% on Trade and 9.8% on other businesses.
- ❑ 0.8 % civil servant.
- ❑ Two Banks : Commercial Bank of Ethiopia and ACSI

- ❑ Decentralization process in Ethiopia involves democratic decentralization, ethnic based federalism and administrative de-concentration to make service delivery equitable, efficient and effective.
- ❑ Regions now have full responsibility to plan and finance, implement and monitor their own development programmes.
- ❑ Likewise, *Woredas (districts) also prepare and manage their own budget* and development programmes.



# Government Structure



- ❑ Regional Water Resources Bureaus are responsible for **planning**, **managing** and **coordination** of rural water supply programmes for medium and large scale Water Supply schemes (population of more than 5000 people) and piped systems involving civil and electromechanical works.
- ❑ Woreda Water offices **plan** and **manage** their Woreda water supply programs.
- ❑ in Villages WASHCOs are responsible for **operation** and **maintenance** of water and sanitation facilities.
- ❑ Regional Water Resources, Irrigation and Energy Bureaus are **linked** to the **federal** ministry and have coordination meetings.
- ❑ However they actually have a stronger link and line of accountability to the regional councils that approve their funding.

# Institutional (Continued..)



- ❑ These institutional coordination challenges emerge as an important issue in the improvement of WaSH information systems.
- ❑ More recently, moves towards a coordinated sector wide approach are beginning to gather speed.
- ❑ Efforts are underway to promote government leadership of sector development programs.
- ❑ Donors are moving to further support government policy goals and strategies, channeling resources through government systems and harmonizing financial and reporting systems and using national procedures and system

## 2. Key Issues



- ❑ Coordination and integration among stakeholders in the WASH in data use for decision making.
- ❑ Application of innovative approaches and methodologies for the decision making process for WASH investment and O&M.
- ❑ Data flow from lower to upper government bodies.

## 2. Stakeholders in WASH decision making process



### Village Level

- ❑ Villages are sub-categorized under the kebele administration (lowest administration Unit)
- ❑ Places where WASH infrastructures are built and sanitation and hygiene promotion activities.
- ❑ Data flow if directly to districts with the involvement of the following stakeholders.
  - ✓ Health Extension Workers
  - ✓ Development agents
  - ✓ WASHCOs
  - ✓ Kebele WASH Teams
  - ✓ Woreda Experts
  - ✓ NGO workers (project officers)
  - ✓ Artisans
- ❑ **Data types**
  - ✓ Demography
  - ✓ Water resource availability
  - ✓ Environmental sanitation
  - ✓ Hygiene behavior
  - ✓ Gender issues

## Data types

- ✓ schemes functionality
- ✓ Number people accessed potable drinking water users per schemes
- ✓ Number of people reached through hygiene and sanitation educations
- ✓ Number of villages with functioning WASHCOs
- ✓ Community demand
- ✓ Strength in managing schemes (O&M)
- ✓ Volume of water, such as total production/yield per day
- ✓ Geographical coordinates and elevation of water point
- ✓ Maintenance history of water points and water schemes
- ✓ Water quality (there are 27 indicators that WAE Ethiopia uses to characterize water quality)
- ✓ Water Technology, i.e. the type of technology used to draw water and type of casing
- ✓ Sanitation and hygiene coverage (i.e. water handling and treatment techniques, hand washing etc)
- ✓ Community management
- ✓ These indicators are then linked to population data within the zone of a specific water point. Data

### **Data used to make decisions on (by Districts ): for HDW, SPD, SW, and non motorized schemes**

- Which villages should be included for next implementation period
- To decide to make new investment or rehabilitation (based on non-functionality and coverage data) or expansion.
- To fill capacity gaps among WASH actors at village level.
- Usage of data for decision is geared towards meeting district level targets
- Calculate and disseminate Water Supply and Sanitation coverage

## Tools for data collection at village level

- surveys (usually conducted using electronic surveys such as AKVO Flow, mWATER, ODK)
  - ✓ Baseline
  - ✓ WASH sector assessments (Helvetas Conducted in 2012/13)
  - ✓ Mid-term monitoring and evaluations.
  - ✓ Outcome monitoring (endline evaluations)
- Meetings and Reports
  - ✓ Review meetings.
  - ✓ Annual, biannual and quarter reports.
  - ✓ Planning workshops



# Stakeholders in WASH decision making process



## **District level**

- ❑ Districts are the key political and administrative units for a regional state.
- ❑ Data gathered at this level directly flow to Regional Water Bureau to make decisions.
- ❑ Stakeholders involving in gathering, processing and interpreting are:
  - ✓ Regional water bureau experts
  - ✓ Contracted consultants
  - ✓ Zonal experts
  - ✓ NGOs
  - ✓ Bilateral organizations

## **❑ Data types**

- ✓ Water supply coverage (Urban and Rural)
- ✓ People with access to safe water and improved sanitation
- ✓ Functionality rate
- ✓ Water resource potential (hydro geological data)
- ✓ Infrastructure status (road, electric power, financial institutions)
- ✓ Affordability to pay

# Using Woreda Water Schemes Inventory



- ❑ Rather than sending data straight up to zones and regional level, there is a major need to develop capacities and promote use of information that is now becoming available through Woreda inventory surveys.
- ❑ Better management and constant use of this information at Woreda and kebele level could lead to improved action plans and better local decision-making (e.g. on location of new sources, prioritizing allocation of scarce resources for maintenance etc).

# Data is used for the following decisions:

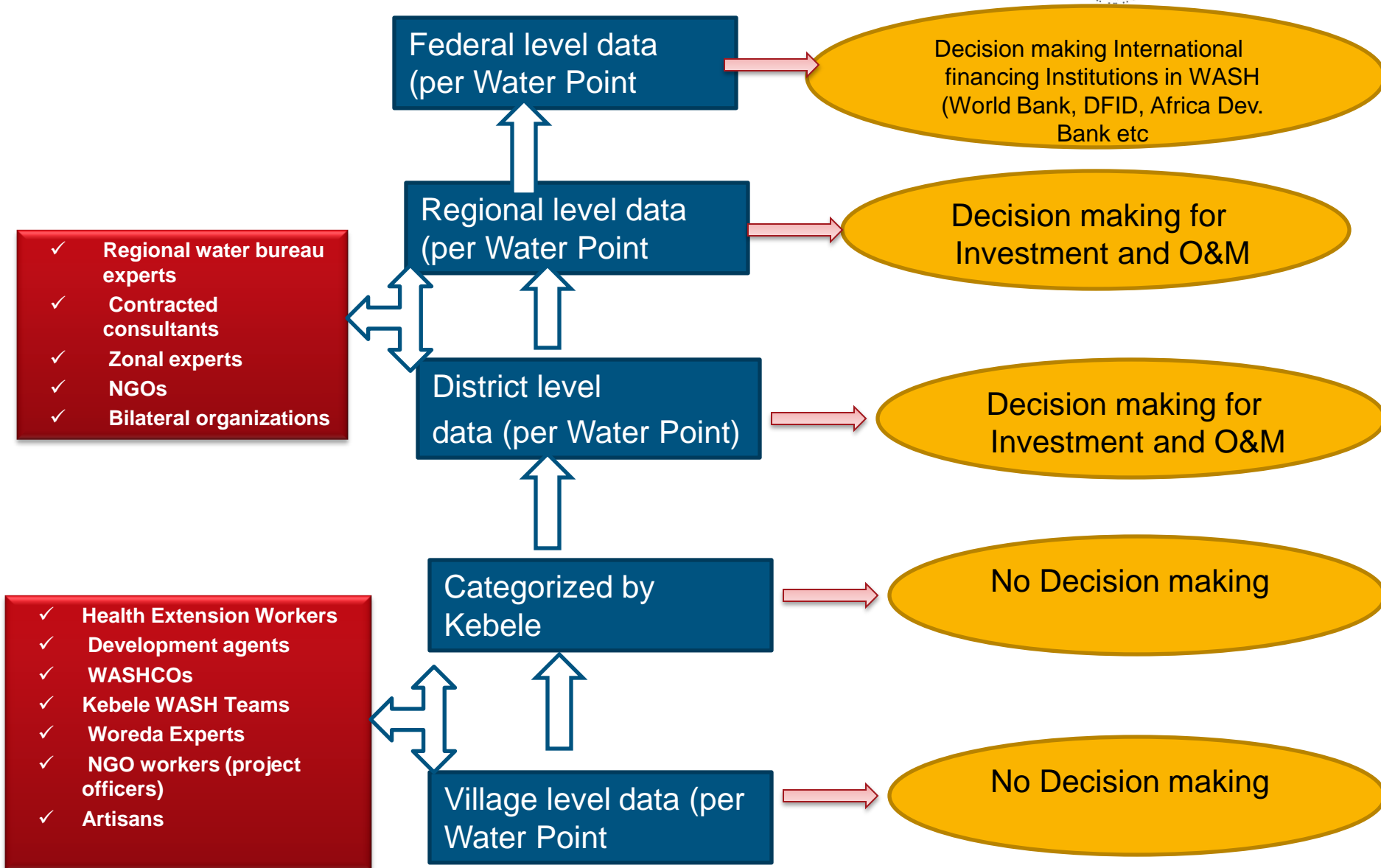
- ❑ Allocate the regular and/or capital budget for WASH development programs among districts
- ❑ Support Donors, NGOs and bilateral organizations in selecting their intervention Woredas.
- ❑ Prioritize and decide on the importance of new investments and/or rehabilitation or expansion.
- ❑ To design strategies, set directions and appropriate techniques for better implementation towards planned targets.

# Other decision-Making data Users



- ❑ Those invested with the responsibility and opportunity to improve water, sanitation, and hygiene services in a community are the target users of the decision-making support data.
- ❑ This group includes
  - Staff of development agencies,
  - Rural development practitioners,
  - NGOs,
  - rural and peri-urban planners,
  - government agency staff,
  - engineers, and health professionals.
  - Water users associations
  - Private sector (Contractors, suppliers)

# Stakeholders Map in Data Flow for Decision Making



- Use of smart phone based application have contributed to better monitoring, evaluation and learning in AIRWASH project.
- Tasks conducted using these tools:
  - baseline survey (including O&M issues) in 2014 (project start) using AKVO Flow survey tool
  - Mid-phase water quality survey: AKVO Flow
  - Biannual water quality surveys both at point of use and household level: AKVO Flow
  - Endline evaluation : Akvo Flow
  - Dispensers for Safe Water (DSW): ODK survey tool for overall piloting implementation of the program (DSW)

# Benefits of using mobile data tools



- Better uniformity and less error in data quality.
- Less time and fair cost of data collection (no paper questionnaires, logbooks or other hardware materials).
- By using a smartphones GPS, we were able to determine if the intended respondent was actually taking the survey.
- Additional information is acquired: enumerators can gather pictures, record respondent's voice, or write notes/diaries all on their Smartphone.
- WASH data was easy to access from the dashboard whenever needed.
- Suitable for easy producing graphical and tabular reports segregated by water scheme type, location, etc

## 5) Challenges



- Lack of institutional data management structure instruments for informed decision.
- Inadequate attention from government partners for better data quality.
- No updatable database system in implementing WASH projects.  
(Inconsistency in database updating)
- Limited capacity of the project staff in modern data management techniques.
- Poor use and integration of research outputs in program and policy changes;



## 6) Lessons Learnt



- ❑ Quality data is a significant factor in producing reliable planning documents
- ❑ Continuous assessment and back-check is important to sustain better data management
- ❑ Capacity building at local level enhances the effectiveness of database systems.
- ❑ Data on coverage was to be based on yield, but information on yield is difficult to gather.
- ❑ The majority of the water schemes are hand dug wells and shallow wells. As such, 'regular measuring of yield is difficult, tedious and costly.'
- ❑ Lack of standard WASH indicators and methods of measuring them makes it difficult to share our data with other actors in the WASH sector.
- ❑ Data collection and analysis requires a lot of financial and human resources as well as technical skills.