



**Federal Democratic Republic of Ethiopia**  
**Ministry of Water, Irrigation and Energy**  
**Water Development Commission**



**Briefing on**  
**Rural Water supply O&M**  
**of Ethiopia**

**May 2019**

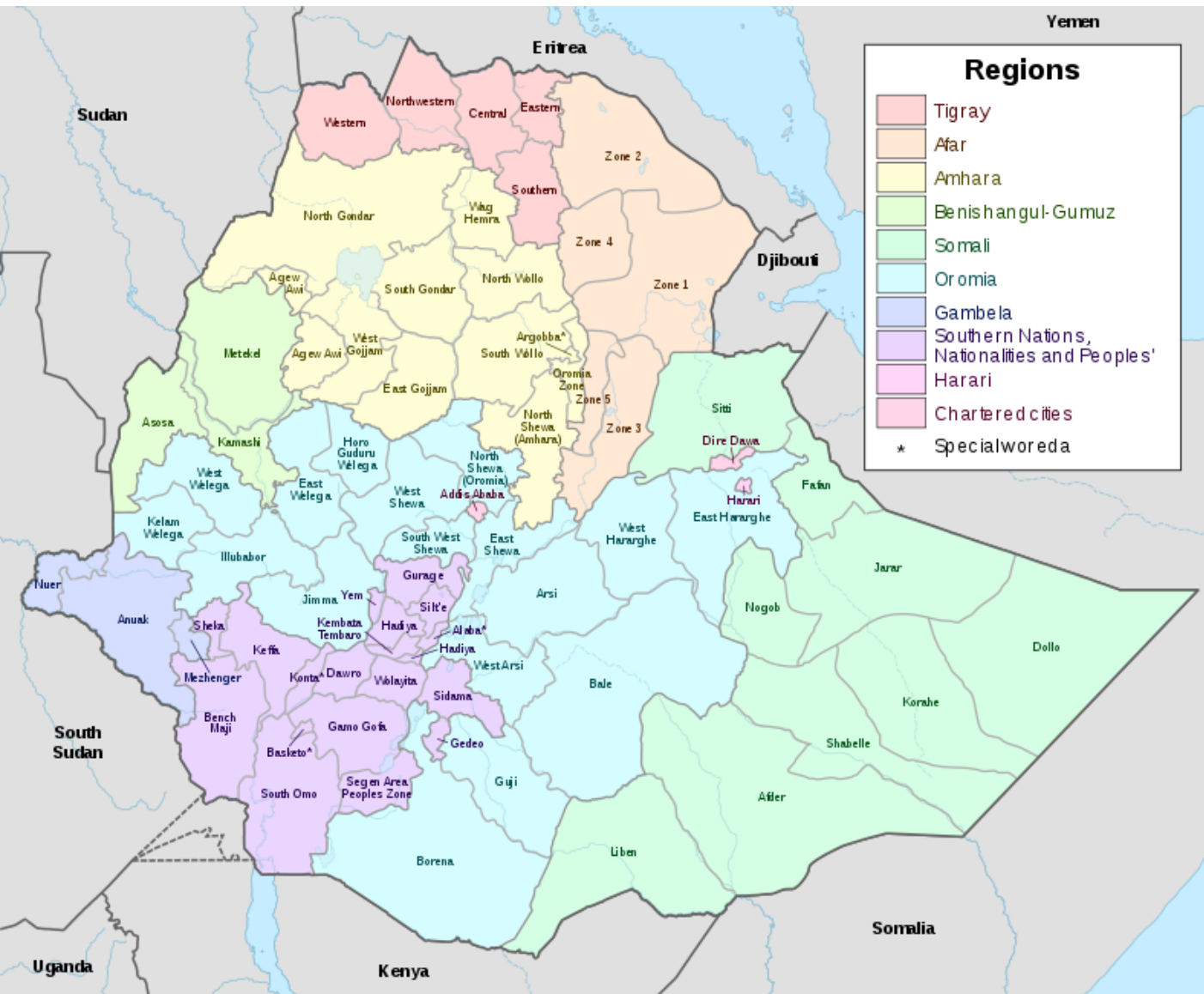
# Presentation Outline

- ✓ Introduction
- ✓ Reforms in the Water sector
- ✓ The water policy and strategy of the country on Sustainability
- ✓ Institutional Arrangements
- ✓ Briefing on GTP-II on RWS Management
- ✓ Constraints in Sustainability
- ✓ Current Undertakings and the Way Forward
- ✓ Best Practices and Opportunities

# Introduction

- 1,100,000 square kilometers Land Area
- almost 100 million total Population lives
  - Rural 80 %
  - Urban Population 20 %
- Government Type: Federal Republic
- 9 Regional states and 2 City Administration
- 12 major river basins
- 122 billion m<sup>3</sup> surface water and approximately about 40 billion m<sup>3</sup> ground water source
- Scattered settlements in rural areas and undulating topography
- More than 760 Woredas and 973 towns exist in the country

# Cont..



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- Safe drinking water is one of the basic necessities for human beings.
- Millions of people in the country have not access to it today, Particularly women and children are the most vulnerable segments of the society
- In the last two periods of GTP a number of RWS schemes constructed in the country
- Currently more than 200 thousand Rural water supply schemes are available in the country
- Every year more than 10 thousand schemes are constructed
- There are a number of Schemes are not delivering the expected service due to many reasons.

# Reform since 1990s

Year	Event/reforms description
1992	Decentralization of water supply development to Regions
1995	Establishment of Ministry of Water Resources (MoWR, now MoWIE)
1999	National Water Policy adopted
2000	Water Strategy formulated
2002	15-year Water Sector Development Program developed
2004	Decentralization of rural water supply responsibilities to Woredas
2005	Universal Access Plan (UAP) developed for WS: 2005–2012
2006	First WASH Multi-Stakeholder Forum (annual sector review)
2011	GTP I (2010-2015) prepared
2013	One WASH National Program(OWNP) Plan prepared ( 2013-2020)
2014	One WASH National Program - Consolidated WASH Account (OWNP- CWA ) started (2014-2019)
2015	Ethiopia met MDG for Water Supply before deadline
2015	Growth & Transformation Plan II (GTP-II) prepared with new service level standard

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## **In the period of 2004- 2012**

- Demand driven approach conceptualized
- Government`s role moved from provider to partner (enabler & facilitator environment)
- WaSH strategic planning practiced in few woredas
- Private sector involvement and partnership improved,
- Women involvement relatively improved,

## **In the period of 2013 and Beyond**

- CSOs well recognized as partners of one WaSH program including their engagements in the composite one WaSH plan and report,
- Top-down and bottom-top planning approach interlinked vertically and horizontally: annual and strategic plans

# The water policy and strategy of the country on Infrastructure management

Key points the water policy and strategy stipulate related to infrastructure sustainability:

- Providing adequate, reliable, sustainable, affordable and clean water to all Ethiopian citizen
- **Decentralization of O&M to the lowest level** with back stopping support
- Establishing **community management** of rural water supply services with enhanced women involvement,
- Ensuring allocation of funds to maintain sustainability of water supply services for O&M support system,
- Ensuring **fees are paid for WS service** rendered taking into consideration **affordability**,



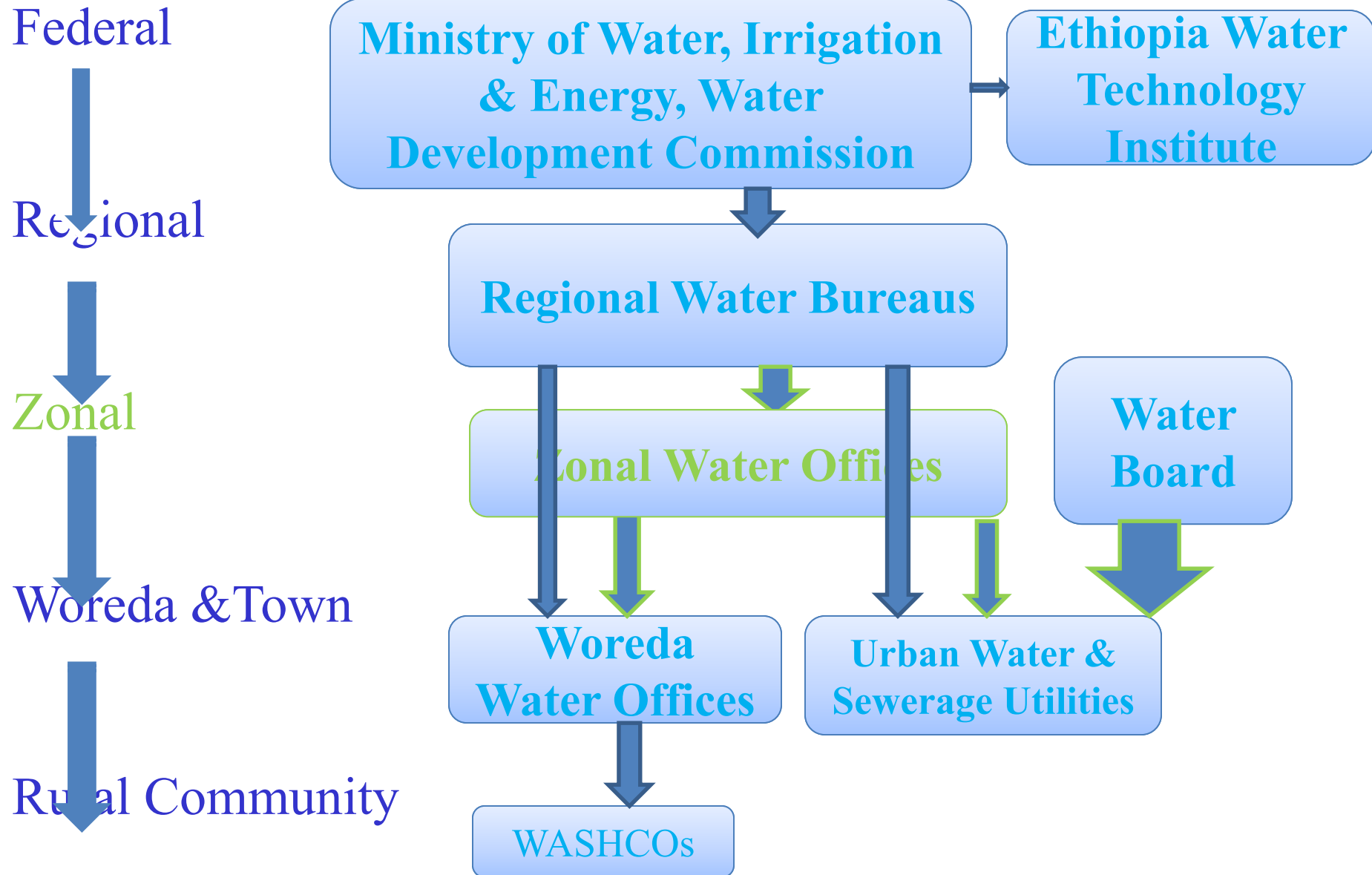
## Continued...

- Ensuring use of sustainable and cost effective technologies in WS service,
- Establish systems to **legalize the ownership** of WS services based on community based structure with defined rules of engagement (bylaws)
- Conduct sound **water quality monitoring** and analysis and have inventory of WS services with proper database management system,

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- Community Owner Ship and Management
- Demand Responsive Approach
- Women Taking a Lead Role
- Integration of W, S and H
- Decentralization of O&M to Woreda/District (local government level)
- Government as a Facilitator
- Private sector involvement
- Capacity Building for all Players including appropriate technology adaptation

# Institutional Arrangement & Responsibilities



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## ○ Federal Ministry of Water, Irrigation & Electricity (MoWIE), Water Development Commission

- Formulate Policy , Strategy and National Plan and Establish Standards
- Regulate and Coordination the implementation of Water supply and Sewerage systems
- supervising and following up on the implementation of policy and strategy instruments as well as overall sector standards
- Coordinate and Monitor Water Supply Projects financed by Federal Government Budget
- Conduct capacity building activities

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- **Regional Water Bureaus (Established by Regional Government )**
  - executive organ responsible for the implementation of federal policies, strategies and action plans through adapting them to the specific conditions of the region
  - Plan, Implement, Monitor and Evaluate Water Supply projects
  - Coordinate and Monitor projects implemented by Woredas and Urban Water Utilities
  - Exercise regulatory duties delegated to them by the Ministry
  - Draft Laws and Regulation for Town Water Supply and Sewerage Enterprises
- **Zonal Water Office (Supporting arms of the Water Bureaus)**
  - Mandated to provide technical support to Woreda Water Offices and Town Water Supply Offices
  - Responsible for coordinating activities, consolidating plans and reports of woredas

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○ **Woreda Water Office**

- Plan, Implement, Monitor, Evaluate small water supply schemes
- Conduct capacity building activities for WASHCOs

○ **Town Water and Sewerage Utilities**

- Plan, Implement, Monitor, Evaluate water supply & sewerage systems
- Operate & Maintain Water supply systems

○ **Town Water Board:-** Play overall management role in Urban Setting

○ **WASH Committee :-** Operate and Maintain & manage Rural Water Supply Schemes

# O&M of RWS Institutional Arrangements

## Federal Level

- Water Development Commission is established recently under MoWIE which is responsible for the water supply and sanitation sub-sector at national level.
- New Directorate under the commission responsible for post construction management of water supply and sanitation infrastructure.
- In this regard, the directorate coordinates all activities which contributes the sustainability of water Supply infrastructures.

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## **Regional state Level**

- Scheme administration Directorate/ Process owner under the regional water bureaus

## **At Woreda/ District Level**

- Woreda Water Office

## **At Kebele Level**

- Only few regions have kebele level technicians who is supporting the WASHCO's nearly



## 2<sup>nd</sup> Growth and Transformation Plan

- As per the GTP-2 water supply service level standard, it is required to provide safe water in minimum 25 l/c/day within a distance of 1 km for rural areas
- Set target to reach 85% access by 2019/20.
- More attention was also given for post construction management as likewise the new scheme construction

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## Goals in GTP-II related to infrastructure Management

- Ensure good governance in rural water supply enhancing sustainability, effectiveness, efficiency, and climate change resilience of the service.
  - Decrease rural water supply schemes **non-functionality** rate from 11.2% to 7%. ( which will be verified in NWI-II)
  - Strengthen rural water supply community management through **legalization** of all WaSHCOs.
  - Empower **Women in WaSHCO** management including in decision making and increase their membership in WaSHCO to 50% and more.
  - Establish **supply chain** for low cost water supply technologies and spare parts.

# Cont...

- Establish water supply extension supporting system at kebele level to enhance implementation of household and communal level self-supply water and improve O&M of rural water supply schemes.
- Ensure **rural water safety** through rural water supply water quality monitoring system and water safety planning and implementation.
- Establish **groundwater monitoring and catchment protection system** around water supply sources to be implemented by Rural Water Supply WaSHCOs.
- Build the sub-sectors' overall capacity.
  - Increase the involvement of the **private sector** in the water supply activities **particularly in O&M**.

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## **IMPLEMENTATION STRATEGIES**

- Improve M&E and MIS of the sub-sector.
- Ensure community involvement in all project implementation cycle.
- Create enabling environment for WaSHCOs legalization/certification.
- Establish spare parts supply chain.

# Current Water Supply Situation

- Most of Water supply sources in the country is rely on Ground Water
- In Rural areas the service is Managed by WaSHCoS with close support of Woreda/District Water Offices
- Tariff rates flat tariff rates in rural areas covering only operation and maintenance.
- **Source of Water Supply**
  - Ground Water + Spring (>90%)
  - Surface Water (<10%)
- **Technology in Use**
  - HDW, MH, spring on spot, spring with distribution, SW on spot, BH with distribution, River diversion, Water harvesting techniques , etc
- **Water supply Access Rate (as of July 2018, Ministry Report)**
  - Rural :- 73%, Urban =60%, National =71%
  - NF: 9%

# Constraints of Sustainability

## Governance constraints

- Focus only to construction
- Lack of appropriately organized support system
- Very weak planning, Information, M&E system,
- Weak enforcement of policies, strategies and legislatives,
- Lack of result oriented training on O&M
- Lack of systematic and regular water quality monitoring.

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## **Service delivery**

- High number of non-functional water supply schemes
- Frequent breakdown of WS Schemes due to over usage
- limited active number of WaSHCO members.
- Insufficient support to empower Women WaSHCO members
- Low private sector involvement,
- No appropriate supply chain,
- High inflation (mainly due to fuel)
- Lack of legal recognition of community management,

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- WaSHCos are available in almost 95% of rural schemes but only 70% of them introduced users' charges, though fees and tariff-setting techniques not consistent with O&M cost recovery principles.
- Only limited number of WaSHCO members are active (2-3) out of seven
- Women WaSHCO members are not properly supported to engage actively
- women's involvement in WS services management practically stood at less than 40% , withstanding target set to ensure at least 50%,



## Current Undertakings

- O&M framework strategy and manual prepared
- National inventory is conducted with more indicators of Sustainability (Jan- Feb, 2019)
- Micro and Small Enterprise establishment manual is prepared to facilitate private sector participation
- Use of renewable energy to alleviate the fuel price inflation problem have been started
- Legalization of WaSHCO underway in most regions
- Water quality management system and water safety plan preparation and implementation is practiced in some Woredas

# **Major principles that guide to achieve the objective of RWS O&M**

**Water supply is owned and managed by the community**

**Critical O&M delegated to private sector**

**Communities pay O&M 100 %**

**Spare parts supplied via private sector or revolving fund office**

**Participation by all stakeholders and user communities, particularly women**

**Good governance  
Transparency  
Accountability**

**Enforcement of policies, acts, strategies, regulations, guidelines and laws to protect and conserve the environment**

# O&M Strategic Directions

1. Issue/amend the needed legal documents for WASHCO legalization and Rural water Board
2. Raise the profile of operation and maintenance management
3. Ensure the cost recovery in the community based financial management
4. Ensure sustainable spare part supply & management
5. Reinforce and establish institutional O&M support mechanisms
6. Develop and utilize appropriate norms, criteria and designs for rural water supply facilities
7. Ensure O&M service delivery,
8. Plan and implement preventive maintenance
9. Implement water safety planning from the remote catchment to the end users
10. Build professionals' capacity at all levels
11. Establish and strengthen of M&E, MIS and reporting system of O&M
12. Incorporate O&M management in to Technical Vocational & Educational Training (TVET) Curriculum

# ***Sustainability of WASH Facilities through MSE***

- *Decreasing the existing non functionality rate of water schemes through the provision of maintenance and spare part supply services*
- *Creating job opportunity for unemployed women and youth*
- *Empowering youth and women through MSE*
- *To provide maintenance and spare part supply service nearby the community and improve sanitation status in the project woredas;*
- *To promote private sector working in operation and Maintenance, and spare part supply in the community level.*

# Spare Part supply Shop



## Best practices

- Deployment of KWEWs showed promising effect on reducing both frequency of schemes break down and length of down time ( Tigray)
- Equipping schemes care takers and technicians with mandatory hand tools showed +ve effect on reducing NFR
- Soil & water conservation and water safety plan increased water availability and year round flow( Tigray & Amhara)
- Increasing Women WaSHCO members in key position showed +ve effect on O&M management
- WaSHCO legalization increased accountability, transparency and water fees collection and management(SNNP)
- Establishment of spare parts supply chain ( SNNP , Tigray, BSG),
- Shift from fossil fuel-driven water pumping to renewable energy ( solar water pumping) has demonstrated a significant reduction on energy and O&M costs.

# Opportunities

- **WaSH service provision gaining attention at all level as top political agenda, (as inviolable human & constitutional rights for Ethiopian citizens),**
- **Government initiative to establish SME & availability of qualified HR ( TVET & University graduates) to be engaged in service delivery business.**
- **O&M strategic framework and O&M management manual support the implementation of O&M activities**
- **Expansion of infrastructure ( access roads) & Current initiatives to establish public private partnership,**
- **Increasing investment ( Domestic, DPSs,CSOs/NGOs, communities.)**
- **Increasing emphasis on catchment management( soil & water conservation)**
- **Improving capacity & efficiency of Solar pumps and dropping cost of PV panels.**
- **Focus given of CSO's on O&M**

**Thank you very much  
for your attention**