Overview on Climate Resilient Water, Sanitation and Hygiene Sub-Program (CR-WASH)

Water Development Commission

Aug, 2019
Presentation Outline

• Introduction
• CR-WASH Objective
• Features of CR-WASH Water Supply System
• The Key tasks
• Major stakeholders
• Sub-program management
• Financial Requirement
• On-going activities
• Required support
1. Introduction

- By 2015, as per GTP1 service level the water supply coverage of Ethiopia reached to 84% providing access to safe water supply to about 41 million people during the planning period.
- Ethiopia has met the MDG target in water supply.
- In spite of this, still about 40 million people have no safe water supply access and the service level is also not adequate.
- From 2016, Ethiopia is implementing GTP-2 rising the service level of water supply.
- The water supply access target set for GTP-2 is 85% (from 58% for the base year 2016).
- Most of the unserved population is located in these arid and semiarid areas.
Fig. 12. Water Supply Access Disparity Among Regions as of 2015 (as per GTP-2 standard service level)
As the people of these areas are mostly pastoralists, water is also critical not only for the people also for livestock. It is also key to unlock the positive potential of drylands.

On top of this, the water supply problem of these areas is further exacerbated with increasing severity, frequency, area of coverage and duration of draught.

In the last 128 years Ethiopia has experienced about 18 draughts with a total of 33 draught years implying that about 25.8% of the year was draught affected years (in average about 2 years/draught).

Of these, 11 draughts affected the whole country, 5 draughts northern and north eastern part of the country, and 2 draughts southern, south east and central part of the country.

People in the range of 4-9 million are affected per draught with increasing trend.

The frequency of occurrence has also significantly increased from 1956 onwards.
Continued…

Areas affected by 2016 draught

The cost of emergency water supply is unbearably high
### Prioritization of Drought Prone woredas by Region (2018)

<table>
<thead>
<tr>
<th>Region</th>
<th>Drought Classification</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Priority one(P1)</td>
<td>Priority two(P2)</td>
</tr>
<tr>
<td>Amhara</td>
<td>14</td>
<td>29</td>
</tr>
<tr>
<td>Gambella</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>Tigray</td>
<td>7</td>
<td>18</td>
</tr>
<tr>
<td>Oromia</td>
<td>51</td>
<td>55</td>
</tr>
<tr>
<td>SNNPR</td>
<td>27</td>
<td>30</td>
</tr>
<tr>
<td>Afar</td>
<td>23</td>
<td>9</td>
</tr>
<tr>
<td>Somali</td>
<td>67</td>
<td>26</td>
</tr>
<tr>
<td>Total</td>
<td>192</td>
<td>173</td>
</tr>
</tbody>
</table>

**Enhanced criteria**
- Health and Nutrition
- Water For Human
- Agriculture
- Markel
- Education
- Flood Relevance
Drought prevalence Ranking (Regional Distribution)
Why CR-WASH?

Due to the aforementioned challenges and specific feature of the arid and semi arid areas of the country in terms of water source availability, climate resilience and population livelihood, CR-WASH Sub-program is developed focused to these areas
2. CR-WASH Objective

Provide reliable, sustainable and climate resilient WaSH services to arid and semiarid areas of the country as a component of OWNP.

Resilience: the ability of a social or ecological system to absorb disturbances while retaining the same basic structure and ways of functioning, the capacity for self-organization, and the capacity to adapt to stress and change.

Around 60% of Ethiopia is characterized (see figure 1) by high climate variability, frequent drought in most part and occasional floods in areas close to rivers or flush flood, arid or semiarid conditions, coverage and a low population density.
3. Guiding Principles and Sub Program pillars

Guiding Principles
The OWNP guiding principles of:

• Integration with stakeholders
• Alignment of partners (planning and Management procedure)
• Harmonization of Approaches and activities
• Partnership between implementing parties will be applied with a focus on arid and semi-arid areas

Program Pillars
The sub program’s tasks rest on three overarching domains or pillars recommended for OWNP:

• Creating an enabling environment and good governance
• Maximizing availability and efficient use of human and financial resources to create demand for better WASH services
• Capacity development for improved delivery of WASH services at all levels
4. Features of CR-Water Supply System

- Use of reliable and Climate Resilient water sources (deep groundwater, reliable surface water, etc.) for multi-villages/kebeles/woredas

- Water source investigation with the state of the art methodology of study and use of modern technologies,

- Provision of water not only for humans as well for livestock,

- Well organized implementation capacity (federal and region level).

- Well organized O&M management and support system (federal, region, and scheme level: rural water utility),

- Integration and cooperation with sectors like agriculture, livestock development, etc. in addition to the commonly known WaSH stakeholders
### 5. Key Tasks of the sub program

<table>
<thead>
<tr>
<th>Task 1: RS, GIS, DTM and Data Synthesis</th>
<th>An integrated system that collects relevant primary and secondary data collection followed by data synthesis, identification and mapping of ground and surface water potential using Tomography. RS, DTM and GIS and hydrologic techniques will be organized.</th>
</tr>
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<tbody>
<tr>
<td>Task 2: Ground Water Development</td>
<td>• Boreholes already drilled in Afar, Somali, Borena etc. will be used in phase 1-2017-2020 for contracting multi village schemes. Further ground water investigation will be undertaken for scaling up the process towards the end of phase 1 and the whole period of phase 2</td>
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<tr>
<td>Task 3: Surface Water Assessment</td>
<td>• In Phase 2 (2020-2025) required additional boreholes will be drilled along construction of multivillage schemes</td>
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<td>• Potential surface water sources wherever appropriate will be identified for subsequent development for supporting life in the areas</td>
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<td>Task 4: Planning and Design</td>
<td>The plan and design will include:</td>
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<td>- Demand projection on water supply for human and livestock, based on GTP-II and SDG standards</td>
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<td>- Design of water supply network as multi-village scheme considering proximity of population settlement, urban and rural centers, rural institutions and infrastructure access</td>
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<tr>
<td>Task 5: Fund Raising</td>
<td>The purpose is to mobilize adequate resources for investment. An indicative financial requirement for climate resilient WaSH (CRWaSH) is estimated by taking the current per capita cost of Rural piped scheme for multi village schemes, livestock watering, distance, infrastructure, labor availability, technology, borehole depth, etc. for two phases (i.e. phase 1-2018 to 2020; phase 2-2021-2025) into consideration. A total of 4,892,838,875 USD is required for two phases (2018-2025). See subsequent slide for details.</td>
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<tr>
<td>Task 6: Capacity Development for Operation and Maintenance</td>
<td>Capacity development for post construction support and O&amp;M will be undertaken in parallel with the other activities.</td>
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<td>Task 7: Implementation</td>
<td>Implementation takes place in parallel with the studies. Phase 1 will involve piloting, assessment &amp; some scaling up while phase 2 will involve big scale replication of the piloting in phase 1</td>
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6. Major Stakeholders To be involved In the process

- **The Federal and Regional Governments**,  
- **One WaSH National Program (OWNP) participating ministries (MoWIE, MoH, MoE, MoFEC and development partners)**, Ministry of Agriculture  
- **CWA Development Partners** (WB, DFID, AfDB, UNICE, Fin, Koica..)  
- **UN organizations and development partners** involved in draught emergency,  
- **TVETCs, HSCs, Research and higher learning institutes**,  
- **the media**,  
- **CSOs** including financing enterprises  
- **the public** at large, etc.
## 7. Sub-Program Management Organization

<table>
<thead>
<tr>
<th>Level</th>
<th>Governance &amp; Guidance</th>
<th>Oversight &amp; Management</th>
<th>Program Implementation</th>
<th>Program Coordination</th>
</tr>
</thead>
<tbody>
<tr>
<td>Federal</td>
<td>National WaSH Steering Committee</td>
<td>National WaSH Technical Team</td>
<td>Federal Sectors’ WaSH Program Management Units (WPMUs)</td>
<td>National WaSH Coordination Office</td>
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<tr>
<td>Regional</td>
<td>Regional WaSH Steering Committee</td>
<td>Regional WaSH Technical Team</td>
<td>Regional Sectors’ WaSH Program Management Units (WPMUs)</td>
<td>Regional WaSH Coordination Office</td>
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<tr>
<td>Special Zones (or other zones where applicable)</td>
<td>Zonal WaSH Management Team</td>
<td>Zonal WaSH Program Management Units –(Water, Health, Education, and ZoFED)</td>
<td>Zonal WaSH Coordination Office</td>
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</tr>
<tr>
<td>Woreda</td>
<td>Woreda WaSH Steering Committee (Woreda Cabinet)</td>
<td>Woreda WaSH Team</td>
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## 8. Estimated Financial Requirement By Regions

<table>
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<tr>
<th>Region</th>
<th>Estimated Financial Requirement Based on Design Population as of 2017 Including 10% admin and CB expense (USD)</th>
<th>Budget Distribution in Two Phases</th>
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</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Phase 1 requirement including 3.5% inflation per annum</td>
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9. On-going activities

- Agreed to include CR-WASH as the fifth sub-component of OWNP-CWA and to allocate program budget separately for it in the second phase of the program,

- The federal government has allocated budget for the program this year to carry out water source investigation study, borehole drilling to secure source, and system design,

- Six regions have selected Woredas from hot spot areas (priority 1 Woredas) for phase 1 implementation to carry out studies with the budget allocated by the government,

- 13 Studies in six regions

- Out of 450 Drought prone woredas, 192 under priority woredas (19 Mill. Pop)
  
  11 Mil Pop. Have no access to water

- 4.7 Mill Bir expected to serve 1.2mil pop as immediate intervention

- 38 projects planned (CWA&GOV)
10. **Support required for the sub-program Implementation**

- Technical support for potential water sources investigation, study and design, construction, and O&M
- Technical support in capacity building of the Ministry, regions and other stakeholders
- Financial and logistical support (including finance for O&M of multi-village RPSs)
- Sharing of research outputs and international experiences in addressing arid and semiarid WaSH services
Thank You