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IDA/R2019-0163/1

May 24, 2019

Closing Date: Thursday, June 13, 2019 at 6:00 p.m.

FROM: Vice President and Corporate Secretary

Ethiopia – Ethiopia One Water, Sanitation and Hygiene (WASH) – Consolidated WASH Account Project

Project Appraisal Document

Attached is the Project Appraisal Document regarding a proposed credit to Ethiopia for an Ethiopia One WASH – Consolidated WASH Account Project (IDA/R2019-0163/1), which is being processed on an absence-of-objection basis.

Distribution:
Executive Directors and Alternates
President
Bank Group Senior Management
Vice Presidents, Bank, IFC and MIGA
Directors and Department Heads, Bank, IFC, and MIGA

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Report No: PAD3016

INTERNATIONAL DEVELOPMENT ASSOCIATION

PROJECT APPRAISAL DOCUMENT

ON A

PROPOSED CREDIT

IN THE AMOUNT OF SDR 216.5 MILLION
(US$300.0 MILLION EQUIVALENT)

TO THE

FEDERAL DEMOCRATIC REPUBLIC OF ETHIOPIA

FOR THE

ONE WASH - CONSOLIDATED WASH ACCOUNT PROJECT

May 22, 2019

Water Global Practice
Africa Region

CURRENCY EQUIVALENTS

(Exchange Rate Effective April 30, 2019)

Currency Unit =	Ethiopian Birr (ETB)
SDR 0.72162568 =	US$1

FISCAL YEAR
July 1- June 30

Ethiopian Fiscal Year (EFY)
July 7-July 8

Regional Vice President:	Hafez M. H. Ghanem
Country Director:	Carolyn Turk
Senior Global Practice Director:	Jennifer J. Sara
Practice Manager:	Maria Angelica Sotomayor Araujo
Task Team Leader:	Habab Taifour

ABBREVIATIONS AND ACRONYMS

AfDB	African Development Bank	**l/c/d**	Liters per Capita per Day
BCC	Behavioral Change Communication	**m^3**	Cubic Meter
BoE	Bureau of Education	**M&E**	Monitoring and Evaluation
BoF	Bureau of Finance	**MDGs**	Millennium Development Goals
CERC	Contingency Emergency Response Component	**MHM**	Menstrual Hygiene Management
CFTs	Community Facilitation Team	**MIS**	Management Information System
CPF	Country Partnership Framework	**MoE**	Ministry of Education
CWA	Consolidated Water Supply, Sanitation, and Hygiene Account	**MoF**	Ministry of Finance
CWIS	Citywide Inclusive Sanitation	**MoH**	Ministry of Health
DFID	United Kingdom Department for International Development	**MoWIE**	Ministry of Water, Irrigation and Energy
DPs	Development Partners	**MSE**	Micro and Small Enterprises
EIRR	Economic Internal Rate of Return	**NOCP**	National Open Competitive Procurement
ESMF	Environmental and Social Management Framework	**NPP**	National Procurement Procedure
ETB	Ethiopian Birr	**NPV**	Net Present Value
FM	Financial Management	**NRW**	Nonrevenue Water
FY	Fiscal Year	**NWCO**	National WASH Coordination Office
GAC	Governance and Anti-Corruption	**NWSC**	National WASH Steering Committee
GAP	Gender Action Plan	**O&M**	Operation and Maintenance
GHG	Greenhouse Gas	**OD**	Open Defecation
GoE	Government of Ethiopia	**WB**	World Bank
GRM	Grievance Redress Mechanism	**WDC**	Water Development Commission
GRS	Grievance Redress Service	**WIF**	WASH Implementation Framework
GTP	Growth and Transformation Plan	**WoF**	Woreda Office of Finance
GBV	Gender-based Violence	**PFM**	Public Finance Management
OFAG	Office of the Federal Audit General	**PMU**	Project Management Unit
OWNP	One WASH National Program	**POM**	Program Operations Manual
PCAD	Procurement and Contract Administration Directorate	**PPSD**	Project Procurement Strategy for Development
IBEX	Integrated Budget and Expenditure System	**RPF**	Resettlement Policy Framework
IBRD	International Bank Reconstruction and Development	**RPS**	Rural Piped System
IDA	International Development Association	**RWRDB**	Regional Water Resource Development Bureau
IFMIS	Integrated Financial Management Information System	**RWSC**	Regional WASH Steering Committee
IFR	Interim Financial Report	**RWCO**	Regional WASH Coordination Office
IRR	Internal Rate of Return	**SA**	Social Assessment

SDGs	Sustainable Development Goals	**UNICEF**	United Nations Children's Fund
SDR	Special Drawing Rights	**US$**	United States dollar
SNNP	Southern Nations Nationalities and Peoples	**UWSSP**	Urban Water Supply and Sanitation Project
STEP	Systematic Tracking of Exchanges in Procurement	**WASH**	Water Supply, Sanitation, and Hygiene
UWSSP II	Second Urban Water Supply and Sanitation Project	**WASHCOM**	Water Supply, Sanitation, and Hygiene Committee
TA	Technical Assistance	**WASHP**	Water Supply, Sanitation, and Hygiene Project
TF	Trust Fund	**WRDF**	Water Resource Development Fund
tCO2-eq	Tonnes of Carbon Dioxide Equivalent	**WRM**	Water Resources Management
ToRs	Terms of Reference	**WSS**	Water Supply and Sanitation
TSG	Town Support Groups	**WWT**	Woreda WASH Team
TWBP	Town WASH Business Plan	**ZoF**	Zonal Office of Finance

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DATASHEET

BASIC INFORMATION

Country(ies)	Project Name
Ethiopia	One WASH—Consolidated Water Supply, Sanitation, and Hygiene Account Project (One WASH—CWA)

Project ID	Financing Instrument	Environmental Assessment Category
P167794	Investment Project Financing	B-Partial Assessment

Financing & Implementation Modalities

[ ] Multiphase Programmatic Approach (MPA)	[✓] Contingent Emergency Response Component (CERC)
[ ] Series of Projects (SOP)	[ ] Fragile State(s)
[ ] Disbursement-linked Indicators (DLIs)	[ ] Small State(s)
[ ] Financial Intermediaries (FI)	[✓] Fragile within a non-fragile Country
[ ] Project-Based Guarantee	[ ] Conflict
[ ] Deferred Drawdown	[✓] Responding to Natural or Man-made Disaster
[ ] Alternate Procurement Arrangements (APA)	

Expected Approval Date	Expected Closing Date
13-Jun-2019	07-Jan-2025

Bank/IFC Collaboration

No

Proposed Development Objective(s)

To increase access to safe water supply, sanitation, and hygiene services and strengthen capacity for water resources management and service delivery.

Components

Component Name	Cost (US$, millions)
Rural Water Supply, Sanitation, and Hygiene (Rural WASH)	110.00
Urban Water Supply, Sanitation, and Hygiene (Urban WASH)	105.00
Institutional Water Supply, Sanitation, and Hygiene (Institutional WASH)	45.00
Climate Resilient Water Supply, Sanitation, and Hygiene (Climate Resilient WASH)	65.00
Institutional Strengthening and Project Management	25.00

Organizations

Borrower:	Ministry of Finance
Implementing Agency:	Ministry of Water, Irrigation and Energy Ministry of Education Ministry of Health Water Deveolopment Commission

PROJECT FINANCING DATA (US$, Millions)

SUMMARY

Total Project Cost	350.00
Total Financing	350.00
of which IBRD/IDA	300.00
Financing Gap	0.00

DETAILS

World Bank Group Financing

International Development Association (IDA)	300.00
IDA Credit	300.00

Non-World Bank Group Financing

Counterpart Funding	50.00
Local Communities	20.00

Local Govts. (Prov., District, City) of Borrowing Country	30.00

IDA Resources (in US$, Millions)

	Credit Amount	Grant Amount	Guarantee Amount	Total Amount
National PBA	300.00	0.00	0.00	300.00
Total	**300.00**	**0.00**	**0.00**	**300.00**

Expected Disbursements (in US$, Millions)

WB Fiscal Year	2019	2020	2021	2022	2023	2024	2025
Annual	0.00	19.91	45.57	67.96	73.79	63.61	29.17
Cumulative	0.00	19.91	65.47	133.43	207.22	270.83	300.00

INSTITUTIONAL DATA

Practice Area (Lead)

Water

Contributing Practice Areas

Health, Nutrition & Population, Social, Urban, Rural and Resilience Global Practice

Climate Change and Disaster Screening

This operation has been screened for short and long-term climate change and disaster risks

Gender Tag

Does the project plan to undertake any of the following?	
a. Analysis to identify Project-relevant gaps between males and females, especially in light of country gaps identified through SCD and CPF	Yes
b. Specific action(s) to address the gender gaps identified in (a) and/or to improve women or men's empowerment	Yes
c. Include Indicators in results framework to monitor outcomes from actions identified in (b)	Yes

SYSTEMATIC OPERATIONS RISK-RATING TOOL (SORT)

Risk Category	Rating
1. Political and Governance	High
2. Macroeconomic	Moderate
3. Sector Strategies and Policies	Low
4. Technical Design of Project or Program	Substantial
5. Institutional Capacity for Implementation and Sustainability	Substantial
6. Fiduciary	Substantial
7. Environment and Social	Substantial
8. Stakeholders	Substantial
9. Other	
10. Overall	Substantial

COMPLIANCE

Policy

Does the project depart from the CPF in content or in other significant respects?

[ ] Yes [✓] No

Does the project require any waivers of Bank policies?

[ ] Yes [✓] No

Safeguard Policies Triggered by the Project	Yes	No
Environmental Assessment OP/BP 4.01	✓	
Performance Standards for Private Sector Activities OP/BP 4.03		✓
Natural Habitats OP/BP 4.04	✓	
Forests OP/BP 4.36		✓
Pest Management OP 4.09		✓
Physical Cultural Resources OP/BP 4.11	✓	

Indigenous Peoples OP/BP 4.10	✓	
Involuntary Resettlement OP/BP 4.12	✓	
Safety of Dams OP/BP 4.37	✓	
Projects on International Waterways OP/BP 7.50	✓	
Projects in Disputed Areas OP/BP 7.60		✓

Legal Covenants

Sections and Description
The Recipient shall have within one (1) month after the Effective Date, adopt the Program Operations Manual (POM) as shall have been approved by the Association and thereafter, shall carry out the Project, and cause the Project to be carried out, in accordance with the POM.

Sections and Description
The Recipient shall adopt within two (2) months from the Effective Date, a Financial Management Manual (FMM) as shall have been approved by the Association and thereafter, shall carry out the Project, and cause the Project to be carried out, in accordance with the POM.

Sections and Description
The Recipient shall furnish to the Association each Project Report not later than sixty (60) days after the end of each EFY quarter, covering the EFY quarter that has just ended.

Sections and Description
The Recipient shall have the procurement activities under the Project covering each EFY period audited by an external independent procurement auditor, selected in accordance with terms of reference satisfactory to the Association (including the Procurement Regulations and agreed procurement plan); and furnish such audit report to the Association not later than six (6) months after the end of such period. The Recipient shall have in place, within three (3) months from the Effective Date, said external independent procurement auditor.

Sections and Description
The Recipient shall furnish to the Association, as soon as available, but in any case not later than April 30 of each year, the Annual Work Plan & Budget and the evidences referred to in paragraph 1 of the Financing Agreement, for their review and approval; except for the first year of Project implementation, which shall be furnished no later than one (1) month after the Effective Date. Only the activities included in an Annual Work Plan & Budget expressly approved by the Association are eligible to a financing from the proceeds of the Financing.

Conditions

I. STRATEGIC CONTEXT

A. Country Context

1. **Ethiopia is a large, predominately rural, and diverse country with a rapidly growing population.** Its land mass is more than 1 million km^2 (the eighth largest in Sub-Saharan Africa) and the country has an estimated population of approximately 100 million (the second largest in the region), more than 80 percent of whom live in rural areas. Ethiopia is also very diverse, with 98 nationalities and peoples[1] and more than 93 spoken languages.[2] At an annual population growth rate of 2.5 percent, Ethiopia's population is estimated to reach 140 million by 2030.[3]

2. **Over the past decade, Ethiopia achieved substantial progress in promoting economic, social, and human development.** For the past 10 years, the Ethiopian economy has grown at an annual rate of over 10 percent in real terms, making it one of the world's fastest-growing economies. This period of robust growth was driven by large-scale public investment in infrastructure and energy, which was made possible by favorable commodity prices and international debt-relief efforts in the mid-2000s. The poverty rate declined from 55.5 percent in 2000 to 26.7 percent in 2016.[4] However, this achievement was more pronounced in urban centers than in rural areas, in part because droughts caused by El Niño affected farm incomes during this period.[5] Besides mitigating poverty, Ethiopia made significant progress toward the other Millennium Development Goals (MDGs) of 2015. The primary school enrollment rate quadrupled, child mortality rate was halved, and the number of people with access to clean water more than doubled. Average life expectancy has increased by about one year annually since 2000 and is now higher than the averages for both Sub-Saharan Africa and low-income countries worldwide.[6]

3. **Nevertheless, Ethiopia continues to face serious development challenges.** Ethiopia remains one of the world's poorest countries, with a per capita income (that is, gross national income per capita) of US$740 in 2017, far lower than the Sub-Saharan Africa regional average of US$1,646.[7] In 2015, Ethiopia ranked 174th out of 188 on the Human Development Index.[8] Maternal and child mortality rates remain high. About 38 percent of children under five are stunted, 24 percent are underweight, and 10 percent are wasted.[9] Access to education has increased, but only 57 percent of children starting first grade will complete the ninth grade. In addition, Ethiopia hosts more than 920,000 refugees, primarily from neighboring Somalia, Sudan, South Sudan, and Eritrea, and the number of internally displaced people has recently doubled due to sporadic unrest. While Ethiopia remains one of the most income-equal countries in the world, with a national Gini coefficient of 0.33 in 2015, there are significant variances at the regional and *woreda* (district)[10] level. Gender disparities are also profound nationally, and a combination of cultural norms and socioeconomic inequality greatly increases the risks of gender-based violence (GBV) faced by women.[11]

[1] Various ethnic groups are given the designation of nationalities and peoples by the Ethiopian constitution.
[2] World Bank, *Country Partnership Framework for the Federal Democratic Republic of Ethiopia for the Period FY18-FY22*
[3] United Nations Department of Economic and Social Affairs (UNDESA), Population Division, *World Population Prospects: The 2017 Revision* (UNDESA, 2017).
[4] The poverty rate is measured at the international poverty line of US$1.9 per day in 2011 purchasing power parity terms.
[5] Government of Ethiopia (GoE), Central Statistical Agency (CSA), *Ethiopia—Demographic and Health Survey 2016* (CSA, 2017).
[6] International Monetary Fund (IMF), *World Economic Outlook, April 2018* (IMF, 2018).
[7] World Bank, *World Development Indicators* (World Bank, 2018).
[8] United Nations Development Programme (UNDP), *Human Development Reports: 2018 Statistical Update* (UNDP, 2018).
[9] CSA and ORC Macro, *Ethiopia Demographic and Health Survey 2016* (CSA, 2016).
[10] Woredas or districts are the third-level administrative divisions. They are further subdivided into wards (*kebeles*) or neighborhood associations, which are the smallest unit of local government.
[11] World Bank, *Ethiopia—Priorities for Ending Extreme Poverty and Promoting Shared Prosperity: Systematic Country Diagnostic* (World Bank, 2016).

4. **The Government of Ethiopia's (GoE's) current economic program is defined in the 2016–2020 Growth and Transformation Plan (GTP) Phase II, which aims to enable Ethiopia to achieve lower-middle-income status by 2025**. The strategy, linked to both the United Nations' 2030 Agenda for Sustainable Development and the Sustainable Development Goals (SDGs), advances reform efforts launched under the GTP I, which focused on boosting agricultural productivity and accelerating growth through large-scale public investment in infrastructure. The GTP II emphasizes the need to maintain the high rates of economic growth achieved, but it shifts focus to expand the role of the private sector. Achievement of these objectives requires concerted and multifaceted approaches to: (i) increase investments in human capital; and (ii) address the impacts of climate change, especially given the country's long history of recurring droughts that have increased in magnitude, frequency, and impact.[12]

B. Sectoral and Institutional Context

5. **Ethiopia has made significant progress in improving water supply and sanitation (WSS) services in the past ten years**. Over 52 million people in Ethiopia now live within 1.5 kilometers (km) of an improved drinking water source compared with only 6 million people in 1990. Over the same period, rates of open defecation (OD) fell by 63 percent, which was the largest decrease observed in the world.[13] About 67 million people gained access to a latrine, at an average rate of 2.6 million people per year. Sanitation and hygiene promotion were integrated into wider health-care delivery mechanisms and utilized behavioral change communication (BCC).

6. **Notwithstanding the progress, much remains to be done.** Just 10 percent of all latrines constructed in rural areas qualify as improved sanitation facilities.[14] A World Bank water supply, sanitation, and hygiene (WASH) poverty assessment[15] reported that the 2016 Ethiopia Socioeconomic Survey found that a significant number of statistically sampled rural springs and wells were contaminated with *E. coli*. Diarrheal diseases were the second-leading cause of death in Ethiopia in 2017,[16] with lack of access to safe WSS services ranking as the second-highest risk factor for death and disability—just behind undernutrition. With rapid increase in population and increase in GoE's water supply service level standards, an estimated 42 million people are without access to a safe drinking water supply and 94 million have no access to improved sanitation, for many OD is the only option. The WSS situation is much better in urban areas according to the assessment but significant equity differences exist between wealthier and poorer households, and larger and smaller urban centers.

7. **Women and girls suffer disproportionately from the lack of adequate WASH services.** They bear the burden of water collection over long distances, which has been associated with negative effects on well-being, school attendance, and a higher risk of GBV. A high prevalence of OD and the poor quality of sanitation facilities also compromise the convenience, safety, health, and dignity of rural women and girls. Gender disparities are exacerbated by the relatively low participation of women and representatives from vulnerable groups, including people with disabilities and youth, in committees responsible for the planning, implementation, and operation and maintenance (O&M) of WASH facilities.

[12] Ethiopia has experienced more than 15 drought events in the past 50 years, including the 2015/2016 El Niño drought and the "Indian Dipole" event in 2017.
[13] World Bank, *Maintaining the Momentum While Addressing Service Quality and Equity: A Diagnostic of Water Supply, Sanitation, Hygiene, and Poverty in Ethiopia* (Washington, DC: World Bank, 2018), 1.
[14] As defined by the World Health Organization/ United Nations Children's Fund (WHO/UNICEF) Joint Monitoring Programme (JMP), an improved sanitation facility is one that hygienically separates human excreta from human contact. Sanitation facilities shared with other households are not considered to be improved.
[15] World Bank, *Maintaining the Momentum*.
[16] Institute for Health Metrics and Evaluation (IHME), Global Burden of Disease, "Ethiopia," http://www.healthdata.org/ethiopia.

8. **Climate change is making water events more extreme.** Recurrent droughts, floods, and rising temperatures make it more difficult to manage water resources effectively and to ensure continuity in WSS service delivery. Moreover, rainfall variability has contributed to increasing frequency and intensity of floods. Recurrent droughts and floods are the greatest climate threat to local communities,[17] with wide-ranging impacts on human capital outcomes and the broader Ethiopian economy. Already constrained by the uneven spatial and temporal distribution of water resources, there is increasing competition between human consumption and productive uses. Coping with climate change and its impact on both surface and groundwater sources requires the collection and analysis of water resource data, better forecasting of weather and long-run climate change impacts, increasing stakeholder involvement through education, and the establishment of early warning systems.

9. **The institutional framework adopted by GoE for WSS decentralization has yielded positive results, but challenges remain.** In 2003, the country decentralized service delivery responsibilities to the regional and woreda levels, and now provides support through formula-based fiscal transfers (block grants). Decentralization has placed WSS service delivery in the hands of local governments, thereby making them more accountable to their respective communities. However, the devolution of responsibilities has not always been accompanied by adequate levels of technical and institutional support. In addition, newly established small towns struggle to keep up with rapid population growth and demand for basic services, and their limited financial and technical resources do not allow them to meet GTP II standards for WSS services. Smaller regions and predominantly pastoralist areas with weaker capacities have seen poorer human development outcomes. In some areas, influxes of refugees and internally displaced people further complicate WSS service delivery and strain local water sources.

10. **The Government's flagship program is the One WASH National Program (OWNP).** It is guided by the Government's established WASH Implementation Framework (WIF).[18] In conjunction with the OWNP, the Government established the consolidated WASH account (CWA) to pool financing for the implementation of the OWNP from the Government's own source and donors. Phase I, which ran from 2014 to June 2019, was financed by Finland, the United Kingdom, the African Development Bank (AfDB), the United Nations Children's Fund (UNICEF), and the World Bank. It represented a transition from project-based engagements to a multisectoral programmatic approach. The emphasis of this initial phase was on addressing gaps in access to WSS services. The World Bank provides fiduciary, safeguard, and monitoring and evaluation (M&E) oversight for the overall CWA activities.

11. **With the launch of OWNP Phase II in 2018, the emphasis is broadening beyond access.** The Government aims to improve water service delivery and water quality through (i) the fostering of BCC; (ii) a more integrated approach to WSS that involves water resources management (WRM); (iii) the provision of improved WSS infrastructure; and (iv) the improvement of O&M to keep systems operating as designed. It has also adopted the Citywide Inclusive Sanitation (CWIS) approach in small- and medium-sized towns.[19] This approach, being rolled out under the World Bank–supported Second Urban Water Supply and Sanitation Project (UWSSP II) (P156433) in Addis Ababa and 22 secondary cities, promotes an integrated approach in the adoption of better sanitation practices, siting, and construction of hygienic latrines and water supplies to limit cross-contamination and ensure that water and sanitation materials are easily available. OWNP Phase II also addresses concerns over climate resilience, gender, and local

[17] GFDRR (Global Facility for Disaster Reduction and Recovery), "Climate Change Country Profile for Ethiopia," GFDRRR, 2016.
[18] The National WASH Implementation Framework (WIF) was developed by the GoE and signed on August 2011. This is the framework for implementing the Ethiopian National WASH Program, undertaken by rural and urban communities and supported by governmental agencies, civil society organizations, the private sector, and international donors.
[19] Small-sized towns are defined as those with between 2,000 and 20,000 inhabitants; medium-sized towns have between 20,000 and 100,000 inhabitants (Federal Democratic Republic of Ethiopia, "One WASH National Program: A Multi-Sectoral Swap," Final Program Document, August 2013) https://www.cmpethiopia.org/content/download/2423/10235/file/Final%20One%20WASH%20PD%20August%2031%202013.zip).

private sector participation. Capacity building for community WASH committees (WASHCOMs), urban water utilities, and local authorities to safely manage and keep water supply systems operating as designed is central to the effort.

12. **The roles and responsibilities for WASH sector management, divided across federal and local authorities, needs further refinement.** The adoption of the OWNP gave stakeholders a common policy agenda and goals but responsibilities are fragmented. Four federal ministries and their respective regional bureaus share responsibility for the implementation of the OWNP: (i) the Ministry of Finance (MoF); (ii) the Ministry of Water, Irrigation, and Energy (MoWIE), through the newly established Water Development Commission (WDC)[20] and its Water Resources Development Fund (WRDF); (iii) the Ministry of Education (MoE); and (iv) the Ministry of Health (MoH).[21] Adding to the dispersion of responsibility, regional WASH bureaus, woredas, towns, and communities are responsible for planning and managing their WSS services.

13. **Meeting the sector's challenges requires that local levels are technically and financially capable to respond.** Only then will the federal entities be able to step back and concentrate on providing the sector's overall policy directions and capital investments. Building technical capacity at the woreda, town, and community levels is essential to strengthening delivery mechanisms and promoting smooth cooperation and coordination among the responsible ministries. Technical assistance (TA) is also needed for the WDC and the WRDF to strengthen their capacity for implementation and lending at the local level for WSS investments. At the federal level weaknesses remain in water resource planning capacity, national surface and groundwater monitoring, and in disseminating drought and flood early warning systems.

C. Relevance to Higher-level Objectives

14. **The proposed Project supports the World Bank's twin goals and aligns closely with the World Bank's Human Capital Project and efforts to build climate resilience.** Human capital is central to the World Bank Group's efforts to end extreme poverty by 2030 and to raise the incomes of people in the bottom 40 percentile of the wealth distribution of each country. Ethiopia is an early adopter of the Human Capital Project, which aims to address three aspects of human capital: child survival, health (stunting and adult morbidity), and educational attainment. Through multisectoral work, the World Bank has engaged in Ethiopia's Investing in Early Years initiative, which is a joint undertaking involving the health and nutrition, water, agriculture, and social protection sectors. The proposed Project aims to build on this momentum to scale up interventions in sanitation that directly link with this initiative and will be implemented in close collaboration with the health and education sectors. It also aims to complement interventions of the National Nutrition Plan and strategically align with the MoH's Woreda Transformation Plan, of which improved hygiene and sanitation form an integral pillar. Further, sustainable management of water resources is key to improving agricultural productivity and mitigates the risk of negative environmental externalities that have the potential of undermining poverty alleviation, shared prosperity, and access to basic services. Through interventions that enhance WRM and WSS infrastructure and service delivery, the Project intends to improve local resilience to climate change related to floods and droughts in the targeted woredas and small- and medium-sized towns.

15. **The proposed Project is fully aligned with the World Bank's Ethiopia Country Partnership Framework (CPF) of fiscal years (FYs) 2018/19–FY 2022/23[22], which in turn is aligned with the GoE's GTP II that covers the period FY 2015/16–FY 2019/20.** The proposed Project objectives are directly linked to CPF's Focus Area Two, Building resilience and inclusiveness, which includes: (i) Objective 2.3—increased access to improved water and sanitation; (ii) Objective 2.5—improved early child nutrition and early learning outcomes; and (iii) Objective 2.6—enhanced management of

[20] MoWIE, Proclamation No. 1097/2018.
[21] The Ministry of Urban Development and Housing plays an important role in planning and regulating urban infrastructure.
[22] Report No. 115135 discussed by the Board of Executive Directors on June 27, 2017.

natural resources and climate risks. The proposed Project is also linked to CPF's Focus Area Three, Improving institutional accountability and confronting corruption, which includes Objective 3—increased capacity and improved governance in service delivery.

16. **The Project is also aligned with the sector objectives of development partners (DPs).** Given these partners' convergence with the GoE's and World Bank's goals for improved WRM, they are expected to contribute to the pooled CWA, managed by the MoF, increasing the efficiency of WASH sector planning and streamlining reporting.

II. PROJECT DESCRIPTION

A. Project Development Objective

PDO Statement

To increase access to safe water supply, sanitation, and hygiene services and strengthen capacity for water resources management and service delivery.

PDO Level Indicators

17. The PDO will be assessed against six outcome indicators:

i. Number of people provided with access to safe drinking water services[23] under the Project (rural/urban/female)
ii. Number of people provided with access to safe sanitation services[24] under the Project (rural/urban/female)
iii. Proportion of kebeles[25] within the Project woredas declared and verified as OD free
iv. Proportion of water schemes that are functional and supply safe drinking water in areas under the Project
v. Proportion of urban water service providers covering their operational costs under the Project
vi. Proportion of rural and urban water supply scheme designs using data from the water resources management information system under this Project

B. Project Components

18. **The proposed Project builds on the lessons learned and positive results achieved over the past decade, including from World Bank support.** It will support investments in both rural and urban settings consistent with achieving the OWNP and SDG targets. In rural areas, it will support WASH services in Woredas selected based on available resource and selection criteria and will build on investments made in the 382 woredas supported under the Water Supply, Sanitation, and Hygiene Project, P133591 (WASHP) and by other DPs through the CWA, by providing WSS services to an additional 2 million people in rural areas. It will extend WASH support to targeted small- and medium-sized towns, reaching a further 1 million people with piped water and 442,000 people with sanitation services. It will also support an estimated 8,260 WASHCOMs and 180 utilities and help establish 83 new sanitation marketing centers. The proposed Project will also seek to make a significant improvement in the percentage of rural

[23] Safe drinking water services need to meet specific conditions of quality (water supplied should be free from fecal and priority chemical contamination), accessibility (located on premises for urban households, and within a 30-minute round trip of rural households), and availability (based on GTP II per capita standards), as detailed in the results framework.
[24] Safe sanitation services need to meet the specified conditions for accessibility (an improved facility that is not shared with other households) and service quality (excreta is safely disposed of in situ or emptied, transported, and treated offsite), as detailed in the results framework.
[25] Kebeles (wards) are fourth-level administrative divisions and constitute a subdivision of woredas (districts).

centers declared OD free; move consumers up the sanitation "ladder"; further promote women's participation in the sector; promote local private sector participation; prioritize the geographic targeting of WASH investments to areas where undernutrition and outbreaks of excreta- and water-borne diseases are prevalent; and operationalize a sector management information system (MIS) to enable a shift toward results-based implementation approaches.

19. **The proposed Project replicates the approach taken in WASHP and follows the Government's OWNP Phase II program document.** The OWNP provides the framework for harmonizing GoE and donor approaches to planning, procurement, implementation, and financing, and serves as the foundation on which a closer partnership can be built between planners, implementers, DPs, and others to achieve common goals. Under the WASHP, the use of the CWA allowed donors to pool funds into a single account to harmonize planning, budgeting, implementation and reporting of WASH activities. The proposed Project will follow a similar approach. The CWA is the primary financing instrument through which DPs channel their resources to jointly implement the activities set out in the OWNP. The proposed financing by the International Development Association (IDA) would be the first donor support to OWNP Phase II and is expected to have a catalytic role in attracting finance from other donors and international financial institutions. An estimated US$290 million has been mobilized and will be channeled through the CWA from existing and new DPs once their resource allocations are confirmed. The Project currently dimensions result from the IDA's contribution. As funds are added to the CWA on a rolling basis, the Consolidated Results Framework will be updated as needed in the Project Operations Manual (POM). Once the majority of contributing DPs commit their resources, consolidated CWA results will be reviewed at Mid-Term Review (MTR) stage and revised accordingly in the Results Framework to reflect consolidated targets and results.

20. **The proposed Project provides incentive mechanisms to promote efficiency that will lay the foundation for a shift toward results-based financing.** Ten percent of IDA financing will remain unallocated at the beginning of the Project and will be used as funds to incentivize and empower performance. At midterm review, the unallocated resources will be allocated to regions based on progress in meeting predetermined Project performance criteria that are outlined in Annex 2 and will be set out in the POM. This approach has been introduced to embed incentives, since disbursement-linked indicators cannot be adopted due to the lack of a sector MIS to adequately monitor results. The financing thus allocated will be used for subprojects that will be appraised based on predetermined criteria set out in Annex 2 for delegated and non-delegated regions. Financing will be provided regionally on a "first appraised, first financed" basis until the unallocated amount is used.

Component 1—Rural Water Supply, Sanitation, and Hygiene (US$110 million equivalent of which US$92.29 million equivalent is from IDA financing).

21. This component will help increase access to safe and reliable WSS services and promote hygienic practices in selected rural woredas that have not previously benefited from the WASHP interventions or that require expansion and improvement of services in new communities to achieve universal access. For woredas chronically impacted by climate variability and where water resources are insufficient to meet demands, considerations for multi-woreda schemes will be developed under Component 4. These activities will be complemented with measures to protect water sources, improve water quality, and increase sustainable water use, thereby increasing resilience to climate-exacerbated droughts and floods in the targeted woredas. The component is structured into two subcomponents: (i) increasing rural access to WSS services; and (ii) enhancing service delivery management capacity.

Subcomponent 1.A—Increasing Rural Access to Water Supply and Sanitation Services (US$96.60 million equivalent of which US$82.80 is from IDA financing)

22. **This subcomponent will implement and continue the support provided through the Sustainable and Equitable WASH (P157690) Programmatic TA.** It will finance the following activities:

i. **Infrastructure investments for rural water supply**, including the construction and rehabilitation of water supply schemes based on a sector-approved menu of technology options (that considers water quality standards, gender-informed design, climate adaptation strategies, and the scoping and financing of renewable energy sources, including non-carbon-based solutions).[26] The rehabilitation and development of new water supply infrastructure will increase the available water supply and the reliability of its service provision, thereby making the beneficiaries less vulnerable to water shortages and droughts.

ii. **TA and procurement of goods and TA to support rural water supply planning and capacity building activities** such as: (i) the development of Woreda Strategic WASH Plans; and (ii) capacity building to strengthen and sustain participating woredas' capacity to plan, coordinate, implement, and manage WSS services jointly with other OWNP core implementing sectors. Better planning and management of WSS services will lead to more reliable services, more adaptive WRM, a reduction in water losses and non-functionality. All of these will increase the beneficiaries' resilience to droughts and floods.

iii. **TA and procurement of goods and TA to support supply- and demand-side sanitation interventions.** Demand-side interventions will include: (i) the rolling out of new BCC campaigns, closely aligned with health and nutrition messaging, that promote a gender-inclusive design, links to sanitation and GBV, and address issues of household water quality and safe storage; and (ii) the establishment of community savings structures to promote household investments in the construction and upgrading of domestic sanitation facilities. On the supply side, it will support: (i) the scale-up of pilot interventions to establish sanitation marketing centers; and (ii) sanitation marketing capacity building for vocational training centers, microcredit institutions, micro and small enterprises (MSEs), local governments, etc. These activities will improve both sanitation facilities and practices and contribute to a reduction in the discharge of untreated effluents into water bodies, which would reduce potential adverse impacts of contaminated flood waters.

Subcomponent 1.B—Enhancing Service Delivery Management Capacity (US$13.40 million of which US$11.49 million equivalent is from IDA financing)

23. **This subcomponent will finance TA and procurement of goods to improve sustainability, addressing issues of poor water quality, non-functionality, and postconstruction follow-up.** Activities will include: (i) enabling WASHCOMs to operate water services; (ii) clustering WASHCOMs with nearby urban utilities to enlarge TA opportunities; (iii) leveraging women- and youth-led MSEs to address supply chain and O&M challenges; (iv) strengthening the capacity of the relevant water, health, and education regional bureaus, woreda offices, and community facilitation teams (CFTs); (v) enhancing WRM and drinking water quality monitoring; (vi) promoting hygiene and household safe water treatment and storage practices; and (vii) enhancing O&M training curricula under vocational skills programs to increase local private sector capacity (e.g technicians, artisans, construction firms, etc.).

Component 2—Urban Water Supply, Sanitation, and Hygiene (US$105 million equivalent of which US$90 million equivalent is from IDA financing).

24. This component will contribute to increasing access to WSS services and to strengthening the capacity of town water boards and utilities to effectively manage water resources and WSS service delivery in selected small- and medium-sized towns. More efficient, sustainably run utilities will lead to reduced water losses and energy efficiency gains, which will increase water supply, improve water quality, and lead to more climate-resilient infrastructure. Based on lessons from the WASHP, this component will follow a stepped approach that includes the provision of TA

[26] Twenty-eight RPSs that are expected to be newly constructed within the targeted rural woredas have finalized designs, and bidding documents are ready for tendering.

for some 180 selected towns and financing of infrastructure investments for selected towns that meet readiness criteria and availability of resource, as outlined in Annex 2 and the POM. It will finance the following activities:

i. **Infrastructure investments in urban water supply**, including: (i) the construction, rehabilitation, and optimization of water production, treatment, and distribution systems, which will increase resilience to droughts through improvement of water supply and service reliability; and (ii) the application of climate adaptation measures such as conjunctive use, strategic storage, and reduction of nonrevenue water (NRW) to strengthen water supply systems' resilience to droughts and floods.[27]

ii. **Infrastructure investments in urban sanitation that will promote the CWIS approach to urban sanitation service provision**.[28] The proposed investments include: (i) the construction and rehabilitation of public and communal sanitation facilities; (ii) the creation of sanitation marketing centers; and (iii) on-site treatment at public sanitation facilities and fecal sludge handling sites. Rehabilitation and development of sanitation infrastructure will enhance the residents' resilience to floods (as explained under Subcomponent 1Aiii).

iii. **TA and procurement of goods for urban WSS**, including: (i) the preparation of town WSS business plans (TWBPs) that consider demand, utilize a gender-informed design, define climate adaptation strategies (including contingency planning), assess infrastructure needs, vet proposed tariffs, and highlight human resources needs; (ii) the establishment and/or strengthening of urban water boards and water utilities to efficiently manage water resources and WSS assets and services; (iii) the preparation of feasibility and detailed design studies for selected WSS investments, including adequate climate change adaptation measures; (iv) the design and implementation of operational efficiency improvements to reduce NRW and save energy (e.g., reduction in pumping costs, use of renewable energy, etc.); (v) the scoping and vetting of sanitation options within the TWBPs; (vi) the establishment of sanitation marketing centers to be operated by the local private sector; (vii) the promotion and capacity building of women- and youth-led MSEs for the supply chain and O&M of sanitation facilities; (viii) capacity building support for national and regional water technology institutes and (ix) the promotion of microcredit institutions to assist urban households in upgrading their sanitation facilities on an affordable basis.

iv. **TA to support the WRDF** in improving the appraisal process of WSS service providers in medium-sized towns that are receiving on-lending loans from the Project through the WRDF, and to improve the operational efficiency of WSS service providers. Topics will include: (i) operational improvements to reduce NRW and save energy; (ii) the establishment and/or improvement of billing, collection, and grievance redressal systems; (iii) the adoption of an MIS; (iv) the improvement of customer relations; and (v) the implementation of tariffs as per approved TWBPs.

Component 3—Institutional Water Supply, Sanitation, and Hygiene (US$45 million equivalent of which US$38.57 million equivalent is from IDA financing).

25. This component will improve integrated access to advanced WASH facilities in schools and health centers and is intended to complement interventions to improve health impacts, decrease school dropout rates, and increase resilience of WSS services to floods and droughts and reduce the contamination of water bodies. It will finance:

[27] Forty-seven towns have completed detailed engineering designs of their urban water supply schemes, of which nine complied with readiness criteria and are ready for tendering.
[28] The CWIS approach is being rolled out in Addis Ababa and 22 secondary cities under the World Bank–supported UWSSP II (P156433).

i. **Infrastructure investments to support the construction, upgrading, and rehabilitation of WASH facilities in schools and health centers** as per the standard guidelines developed by the MoE and MoH, with special consideration given in designs to gender and climate change adaptation criteria (details found in Annex 2).

ii. **TA and procurement of goods to support BCC and capacity building,** including: (i) hygiene promotion and BCC activities (e.g., school WASH clubs and other efforts to raise awareness of the importance of handwashing and hygiene practices, menstrual hygiene management [MHM], efforts to counter GBV, preparedness for climate change vulnerabilities, O&M, etc.); and (ii) support for bureaus of education and health in the procurement and contract management of proposed infrastructure to address substandard construction quality. Implementation of these activities will be incorporated into the Woreda Strategic WASH Plans or TWBPs to ensure geographic complementarity between water supply interventions and health and education sector programs.

Component 4—Climate Resilient Water Supply, Sanitation, and Hygiene (US$65 million equivalent of which US$55.71 million equivalent is from IDA financing)

26. This component will contribute to strengthening the management of water resources for service delivery and to increasing access to WASH services in selected flood- and drought-prone areas (details found in Annex 2). The component is divided into the following three subcomponents: (i) water resource monitoring and planning; (ii) climate-adaptive service delivery; and (iii) a contingency emergency response component (CERC).

Subcomponent 4.A—Water Resource Monitoring and Planning (US$5 million of which US$4.29 million equivalent is from IDA financing)

27. **This subcomponent, through the River Basin Development Authority reporting to the MoWIE and the National Meteorological Agency, will support the consolidation and collation of monitoring and planning data on surface and groundwater resources to inform the design and management of water supply service delivery.** It builds on activities supported by the World Bank–financed Modernization of Hydrometeorological Services TA (P162600) and will enhance the WSS sector and beneficiaries' resilience to climate change—as adequately managed water resources are key to dealing with recurrent droughts, floods, and rising temperatures, which exacerbate water stresses.

28. **This subcomponent will finance TA and procurement of goods and services** to: (i) strengthen collection, analyses, and dissemination of data on weather, climate, and surface and groundwater quality and quantity; (ii) enhance drought and flood early warning systems; (iii) enhance WRM planning capacities; (v) develop guidelines for catchment management interventions to protect water sources; and (vi) support capacity building and coordination to increase institutional readiness and disseminate early weather and climate warning information at the national, regional, woreda, and community levels.

Subcomponent 4.B—Climate-Adaptive Service Delivery (US$60 million of which US$51.43 million equivalent is from IDA financing)

29. **This subcomponent will support selected woredas and urban towns in identified "hotspot" drought- and flood-prone areas** to increase their climate resiliency. It will promote climate-adaptive approaches for WSS services that extend beyond local administrative boundaries, requiring tailored management arrangements. It will be managed by the WDC and will finance the following activities:

i. **Infrastructure investments,** including sustainable water source development and promotion of conjunctive water use where possible, using boreholes, spring development, water harvesting (e.g., cisterns), groundwater recharge (e.g., sand dams), storage (e.g., micro-dams, tanks, etc.), installation of renewable energy sources (from hydropower, solar and wind), and distribution networks and water points Sanitation and hygiene infrastructure will be dimensioned accordingly.

ii. **TA support to strengthen resilience planning,** including: (i) improved contingency and emergency planning; (ii) investment preparation (feasibility and engineering designs) for climate-adaptive technologies; (iii) preparation of guidelines (menu of appropriate technologies, design considerations, etc.); and technical standards to facilitate scoping, design, and construction of climate-adaptive water supply service delivery.

Subcomponent 4.C—Contingency Emergency Response Component (CERC) (US$0 million)

30. **This subcomponent will allow, on an as-needed basis, a reallocation or replenishment of the Project resources to woreda- and regional-level implementing agencies to address elements of an emergency response.** The outline, the predefined framework of activities, and associated triggers that would redirect resources to support emergency efforts are incorporated into the POM. A CERC manual will be formally adopted by the GoE and incorporated as an Annex to the POM that will guide any CERC activities in the event of an emergency.

31. **Component 5—Institutional Strengthening and Project Management (US$25 million equivalent of which US$21.43 million equivalent is from IDA financing).**

Subcomponent 5.A—Operationalization of a Sector MIS (US$5 million of which US$4.29 million equivalent is from IDA financing)

32. **This subcomponent will support the improvement of M&E systems and activities intended to lay the foundation for a shift to results-based approaches in subsequent operations**. It builds on the ongoing TA and financial support provided by the CWA DPs (the United Kingdom Department for International Development [DFID] and AfDB) that are financing the second National WASH Inventory, development of the MIS, and procurement of monitoring equipment. It will focus on the institutionalization and improvement of the National WASH Inventory and MIS. It will finance TA and procurement of goods and services to: (i) train, equip, and support M&E staff at regional and local levels; (ii) introduce remote sensing applications; (iii) further improve the system to realize real-time monitoring; and (iv) bring successful global experiences with information systems for rural WSS services to Ethiopia.[29]

Subcomponent 5.B—Institutional Strengthening and Project Management (US$20 million of which US$17.14 million equivalent is from IDA financing)

33. **This subcomponent will support federal, regional, and woreda implementing agencies to manage and supervise the proposed activities effectively.** It will finance TA, procurement of goods, training and operating costs including: (i) capacity building and financing of additional implementation support, technical experts, and equipment; (ii) project management and coordination between implementing agencies; (iii) procurement and contract management; (iv) financial management (FM); (v) application of environmental and social safeguard instruments; and (vi) knowledge management and experience sharing.

C. Project Beneficiaries

34. **The proposed Project will directly benefit approximately 3 million people through the provision of safe water supply services, of which 1.9 million people will also gain access to safe sanitation facilities in newly selected areas across the country.** Out of the 3 million target beneficiaries, 1 million live in urban towns and 2 million live in rural areas. These beneficiaries will add to the 10.7 million people provided with access to improved WSS services as a result of the World Bank's operations in the sector over the past decade.[30] The Project also complements the 3.3 million beneficiaries of improved access to WSS services in Addis Ababa and the 22 secondary cities targeted under the UWSSP II. The Project aims to develop and rehabilitate some 8,260 rural water supply systems in selected

[29] For example, the information system for rural WSS (SIASAR: http://www.siasar.org) that helped enhance the sustainability of the rural WASH interventions in various countries of Latin America, Africa, and Central Asia.
[30] Aggregated results from the Water Supply and Sanitation Project (P76735), the UWSSP (P101473), and the WASHP (P133591).

woredas, in addition to the 382 woredas supported under the WASHP. In urban areas, 180 selected small- and medium-sized towns will be supported with capacity building and TA and selected new towns will receive infrastructure investment for water supply upon meeting the readiness criteria. The Project will support WASHCOMs; town water utilities; and woreda, zonal, regional, and federal water, health, education, and finance offices and OWNP implementing agencies through enhancement of planning, budgeting, and implementation capacities. Relevant BCC and training material will be adapted to local languages. Furthermore, 2,800 health facilities and schools will be provided with advanced WASH facilities. MSEs, primarily women and youth led, will also benefit from income-generating opportunities under the Project.

D. Results Chain

Issues/Challenge	Activities	Inputs	Intermediate outcomes	Outcomes
Low access to safe water supply services	Investment support to rural and urban water supply service improvement	Studies and designs for improved water supply infrastructure development	Functional rural and urban water supply schemes	Increased access to safe water supply services
		Water source protection and development		
		Construction of water supply systems (RPS) (reservoirs, water points, equipment, etc.)		
		Construction and rehabilitation of WASH packages for schools and health facilities		
		Provide test kits and equipment for water quality monitoring at source and supply	Improved water quality mechanisms in place	
		Provide materials and carry out awareness campaigns for household-level water treatment		
Low access to safe sanitation facilities	Investment support to rural and urban sanitation service improvement	Produce BCC materials and carry out awareness campaigns on sanitation and hygiene practices	Increased demand for improved sanitation	Improved hygiene practices
		Construct sanitation marketing centers, coordinate and promote business activities	Increased availability of products/materials for improved sanitation	Increased access to safe sanitation services
		Improve quality and management of public and communal latrines	Increased capacity for containment, sludge collection, transport, and safe disposal	
		Provide fecal sludge transport equipment (vacuum trucks)		
		Upgrade standard design for advance sanitation in schools and health facilities	Improved sanitation facilities for schools and health centers	
		Construction and rehabilitation of WASH packages for schools and health facilities		
Limited capacity of WASH service providers results in lack of sustainable WASH schemes	TA and investment support to build capacity of woredas and WASHCOMs	Develop O&M manuals and guidelines	Increased local capacity to manage WASH services (governance/institutional, financial, and technical capacity and women participation) is strengthened	Improved functionality of WSS schemes
		Support development and implementation of Woreda WASH Strategic Plan		
		Establish and strengthen community-level WASH management systems		
		Ensure spare parts and maintenance crew for O&M are available		
		Provide training to WWTs and WASHCOMs		
		Ensure participation of women and girls in WASH service planning, design, and management		
	TA and	Update business plans for utilities	Improved revenue of	Improved

	investment support to build capacity of utilities and water boards	Support service operational improvements, including NRW reduction to save energy	utilities and controlled expenditure	operational efficiency of utilities
		Establish Integrated Utility MIS (billing, accounting, customer management, etc.)		
		Train utilities and water boards		
Limited capacity for water resource planning and emergency responses	TA and investment support to water resource planning and emergency response	Establish hydromet and early warning systems	Enhanced use of WRM data for climate-resilient WSS designs	Increased resilience of WSS services to climate shocks
		Carry out water resource mapping, monitoring, and planning		
		Implement emergency response mechanisms (e.g., household water storage, household water treatment, procurement of equipment, etc.)	Improved capacity on emergency preparedness and response	

E. Rationale for World Bank Involvement and Role of Partners

Rationale for World Bank involvement

35. **The World Bank plays a key role in coordinating donor support to the sector and continues to leverage analytical and financial support to strengthen the GoE's decentralized implementation modalities, orient policy shifts, and support achievements of sector targets.** The World Bank provided critical contributions that enabled Ethiopia to meet the MDGs for water supply,[31] which placed it among the small group of countries in Sub-Saharan Africa to do so. The World Bank has supported the GoE's shift from project-based interventions to a multisectoral, program-based approach (i.e., the OWNP) and the establishment of the CWA—a harmonized funding mechanism with pooled financing from other DPs. Through its ongoing projects, namely the WASHP (P133591), which supports OWNP Phase I and the UWSSP II (P156433), the World Bank continues to be the primary financier of the sector and to play a pivotal role in coordinating proposed activities with parallel initiatives financed through other national flagship programs such as the Productive Safety Net Program (P136438), the Agriculture Growth Program (P148591), the proposed Lowlands Livelihood Resilience Project (P164336), the Health MDGs PforR (P160108), the General Education Quality Improvement Project (161377), and the Enhancing Shared Prosperity through Equitable Services project (151432). The World Bank is well positioned to support the GoE in meeting the GTP II and SDG targets. The World Bank has the leverage and convening power to mobilize additional resources from other DPs and support the sector in shifting to a wider focus beyond increasing access to addressing WRM and WSS service delivery. In addition to financing, the World Bank continues to support the sector through analytical outputs, TA, and mainstreaming lessons learned and best practices.

Role of Partners

36. **Project funds will be pooled into the CWA, which is also funded by the DFID, AfDB, UNICEF, and the Government of Finland to jointly fund OWNP.** The CWA POM is the guiding document for joint implementation and presents the Consolidated Results Framework. New bilateral donors are currently in the process of funneling resources through the CWA.[32] Each DP signs a bilateral financing agreement with the GoE and funds are subsequently pooled into the CWA. Once allocations are confirmed from all partners, during the MTR stage, the POM and Results Framework will be revised to dimension additional funds and targets accordingly. The World Bank will provide fiduciary, safeguards and M&E oversight for all CWA-financed activities. The CWA partners will co-lead and participate in joint implementation review missions, CWA DPs' coordination meetings, and CWA's National WASH Steering Committee (NWSC) meetings, which are chaired by the minister of the MoWIE. In addition, to provide support

[31] Some 10.7 million people gained access to improved WSS services in Ethiopia as a result of the World Bank's operations in the sector over the past decade, including the Water Supply and Sanitation Project (P076735), the UWSSP (P101473), and the WASHP (P133591).
[32] The Korean International Cooperation Agency has finalized its bilateral agreement with the GoE.

through the CWA, these DPs, together with other bilateral donors and international nongovernmental organizations, are actively supporting the sector under the WIF and targets set forth in the OWNP. Activities implemented and piloted at local levels have provided valuable lessons learned to be scaled up through the CWA.

F. Lessons Learned and Reflected in the Project Design

37. **Narrowly targeted investments can make inroads in addressing the water sector's challenges but are not sufficient to place the sector on a sustainable path.** By all measures, Ethiopia did well in the MDG era as it increased access to improved WSS services. However, the World Bank's experience in both developing countries and member countries of the Organization for Economic Co-operation and Development has demonstrated that issues surrounding water sustainability and efficient use on an economywide basis cannot be adequately addressed under such a narrow policy mandate. Thus, this proposed Project seeks to enlarge the GoE's scope of intervention through: (i) adopting a comprehensive sector strategy and plan (i.e., the OWNP); (ii) resolving the water quality challenge; (iii) properly planning WSS systems to keep service affordable; (iv) addressing financial issues in urban areas; and (v) taking the initial and foundational measures to combat the challenges brought about by climate change. These elements, taken together, represent a shift toward a culture of national integrated WRM and service delivery—the most sustainable approach to meeting the country's many water sector challenges.

38. **Achieving sustainable, safe water supply requires a combination of effective investments and social measures.** Experience in large and predominately rural countries has demonstrated that capital investments are necessary, but not sufficient in themselves, to provide sustainable access to safe water and adequate sanitation. For example, the predominant policy across the globe is to deliver water to as many households as practical through a piped system that is based on protected and then treated surface water, or through deep boreholes that draw from unpolluted aquifers. And sanitation facilities must be designed to eliminate water contamination. While this policy's technical solutions are straightforward (i.e., provide the correct WSS infrastructure to deliver safe water), infrastructure systems frequently fall into disrepair[33] and water quality slowly reaches the point where the water is no longer safe. In addition, experience has demonstrated that without public knowledge on how the fecal contamination chain works and can be broken, the negative effects of infrastructure failure quickly show up in deteriorating health indicators. The lesson learned is that both "hard" and "soft" investments are needed to sustain safe water supply. The proposed Project reflects this understanding through (i) its emphasis on water supply systems that are properly designed, that predominantly use boreholes, that incorporate water treatment, and that use pipes to deliver water on household premises when feasible; (ii) adequate source protection measures; and (iii) improved sanitation facilities that are designed to contain and manage excreta and fecal sludge safely. In addition, it will rehabilitate existing piped water systems to reduce leaks, which are sources of polluted surface water infiltration. The scale-up of scheme-level water quality monitoring will be strengthened and enforced to identify contaminated water sources that require attention. Infrastructure policy will be equally emphasized in the Project by fostering a CWIS approach, utilizing BCC, promoting gender equity, and building technical capacity into urban water utilities and WASHCOMs to safely manage and keep new water systems operating as designed.

39. **The provision of safe water supply and fecal sludge management systems is a key component of improving human capital.** Statistical evidence from the Lao People's Democratic Republic has shown that poor WASH services cause environmental enteric dysfunction, which is implicated as a cause of child stunting. This same causality and effect have been observed in Ethiopia, where current approaches have not yielded the intended impacts due to a high level of water contamination by fecal matter at the source and in potable water, linked to a high level of OD and

[33] The Ethiopian National WASH Inventory, last conducted in 2011, reported that 25 percent of water supply schemes were nonfunctional.

poor sanitation services in participating communities.[34] The proposed Project therefore places an emphasis on the integrated provision of safe WASH services (including in schools and health facilities) prioritized to areas with high rates of undernutrition and excreta- and water-borne diseases, the adoption of the CWIS approach, systematic hygiene messaging in schools and communities, and improved monitoring of drinking water quality.

40. **Successful decentralization of WSS services takes time, requires extensive capacity building at the local level, and needs the right structure and information at the federal level.** The World Bank's experience in many countries has demonstrated the difficulty of making technical services, such as WSS, operate efficiently in the initial years after decentralization. The most considerable challenges are two: (i) quickly building adequate technical capacity at the local level, and (ii) designing and enforcing institutional roles, and gathering and correctly interpreting information about the sector. The proposed Project seeks to steer significant resources toward addressing the former. For example, implementation challenges facing Ethiopian water sector projects indicate that, at the regional level and below, substantial and sustained hands-on support is required from the proposed Project for regional, zonal (where applicable), and local entities to carry out their mandate. This support would include continuous training and the use of strategic support structures. Component 5 of the proposed Project will also support capacity building to reinforce roles and responsibilities and build information and decision capacity. While the OWNP successfully brought about closer coordination among the sector's four implementing ministries (finance, water, health, and education) and created a vertical implementation structure that extends from the federal to woreda levels, there is still a need to streamline processes and improve the knowledge base. Thus, the proposed Project will build up the sector oversight capacity of the WDC and establish a comprehensive sector MIS. The MIS will allow the federal level to track results, improve the understanding of critical sector issues, and better forecast demand. It is expected that the MIS will also help lay the groundwork as the GoE considers shifting toward results-based implementation approaches—as is observed from the experience of countries with successful programs for results, like Vietnam and Egypt.

41. **Measures to build climate change resilience should start early and require adequate and long-term support.** Experience from such places as Australia, Jordan, Botswana, South Africa, and Thailand demonstrate that climate change effects are not predictable nor are they consistent. For example, periods of drought can be followed by torrential rain and floods. This indicates that dealing with climate change is locally oriented, multifaceted, and complex, and the sooner mitigation measures are designed and implemented the less steep will be the learning curve. The proposed Project acknowledges this lesson by building the foundations of weather statistics, establishing the capacity to track ground and surface water resources in real time, strengthen early warning systems, and explicitly build climate change considerations into its water sector policy framework (i.e., OWNP II) and long-term planning.

42. **Private sector participation in the WASH sector is possible through small local firms.** World Bank experience in Cambodia, Bangladesh, Yemen, and Ethiopia has demonstrated that the local private sector will fill an apparent market opportunity to provide WSS services. It may be necessary for the GoE to provide expensive equipment (e.g., suction trucks), but there is a profitable market in sanitation services and it is not difficult to get private operators interested. In just one example, the World Bank's experience in Bangladesh has demonstrated how the private sector can be motivated to provide improved household latrines through (i) turnkey installations provided by educated contractors and (ii) one-year financing from small financial intermediaries. In Ethiopia, small and often women-owned companies have established themselves in the WSS spare parts supply chain. Female- and youth-led SMEs also manage public latrines in several Ethiopian cities. The proposed Project leverages this experience though the promotion and support of SMEs to enter rural and small urban settings to provide a range of supplies and services to the WSS sector such as spare parts, household sanitation products, and the O&M of smaller rural schemes.

[34] Ethiopia Socioeconomic Survey–Water Quality Testing (ESS-WQT) 2016; this represents the first large-scale water quality testing carried out in Ethiopia.

III. IMPLEMENTATION ARRANGEMENTS

A. Institutional and Implementation Arrangements

43. **The Project's implementation and institutional arrangements will follow and refine the existing structures established under OWNP Phase I.** The NWSC coordinates the WASH-sector-related ministries (MoWIE, MoH, MoE, and MoF) and the newly established WDC. MoWIE has an oversight role while the WDC is mandated with implementation. Each ministry has a dedicated Project Management Unit (PMU), and bureaus and offices at regional, zonal, and woreda levels that will be the implementing agencies, with oversight from their respective steering committees. In the case of the MoWIE, the PMU has been embedded in the WDC. The MoWIE WDC PMU will be responsible for technical oversight of water activities and procurement and safeguard oversight for the overall Project. Project funds will continue to be channeled through the CWA pooled funding mechanism. Minimum required key staff for project management, procurement, FM, safeguards, M&E, etc., will be stated in the POM (see Annex 1).

44. **The WASH implementation and coordination structure is consistent with Ethiopia's decentralization policy; with woredas, towns, and communities are responsible for planning and managing their WSS services.** To facilitate the implementation of the OWNP at different levels, the GoE will continue to utilize and strengthen the established WIF, coordination, and technical support mechanisms. Implementation arrangements at each level are as follows:

i. **At the federal level,** the NWSC is the highest governing body for the OWNP CWA, chaired by the Minister of MoWIE and integrated by the MoF, WDC, MoH, and MoE. It provides overall governance and guidance. National WASH Technical Teams are responsible for oversight and management, and program implementation for the proposed Project will be carried out by the PMUs at each of the WASH-sector-related ministries (WDC PMU, MoH PMU, MoE PMU, and MoF PMU (channel one)). The WDC PMU will continue to bear the responsibility for consolidation of procurement plans and safeguard oversight for all sectors. This PMU will be responsible for all bulk procurement (e.g., goods such as vehicles, water quality test kits, IT equipment, etc.).

ii. **At the regional level,** overall governance and guidance are provided by the Regional WASH Steering Committee (RWSC), oversight and management by the Regional WASH Technical Team, and the Regional WASH PMUs will be responsible for implementation of Project activities, including safeguard oversight.

iii. **At the level of special zones where required,** a zonal WASH technical team is responsible for governance and guidance as well as oversight and management. Activities are implemented by zonal WASH coordination unit that will establish program management and coordination structures to address implementation challenges in large regions.

iv. **At the level of woredas,** a Woreda WASH Steering Committee, composed of woreda cabinet members, is responsible for governance and guidance as well as oversight and management. Project planning and implementation will be coordinated by a dedicated woreda WASH team (WWT) consisting of members from the water, health, education, and finance woreda offices. Each woreda will nominate a focal point to coordinate safeguard screening and compliance.

v. **At the level of towns,** a Town WASH Steering Committee, composed of town cabinet members, is responsible for governance and guidance as well as oversight and management. Activities are implemented by the town WASH technical committee, municipality, health or the town water board and utility.

vi. **At the community level,** a WASH committee composed of 5-7 community members (at least 50 percent female) will be responsible for follow up during construction and O&M of community water schemes, postconstruction.

vii. **National, regional, and zonal WASH coordination offices** are responsible for preparing consolidated WASH plans and budgets, leading joint technical reviews, and reporting on implementation progress (physical and financial).

45. **In addition to these governance, implementation, and coordination structures**: (i) the WRDF will be responsible for appraisal and M&E of subprojects in selected medium-sized towns; (ii) the MoF, regional bureaus of finance, and woreda offices of finance (WoFs) will be responsible for managing funds, preparing quarterly interim financial reports (IFRs), and facilitating annual audits; and (iii) the regional or zonal safeguard staff will support the woredas' focal points for safeguard oversight. Civil works under this Project will be implemented by the regional water bureaus, using their own capacity or contracted out to national and international contractors. TA will be provided through a combination of individual consultants and firms (both national and international). Further details on implementation arrangements are outlined in Annex 1 and the POM.

B. Results Monitoring and Evaluation Arrangements

46. **The M&E arrangements will build on mechanisms created under the WASHP with clear institutional arrangements to ensure quarterly reporting of the Project outputs and outcomes.** The M&E structures created at federal and regional WASH PMUs, including the coordination offices, will continue to be financed and strengthened. As CWA planning, implementation, and reporting and harmonized M&E interventions will cover all CWA-financed activities, consolidated quarterly physical and financial reports will be submitted by NWCO and MoF. The Project will provide tailored support to handle M&E tasks, especially in large and dispersed woredas in the larger regions that rely on zonal structures (Oromia, Amhara, and the Southern Nations, Nationalities and Peoples' [SNNP] regions). The Project will conduct an impact evaluation to capture the learning and efficacy of Project interventions. MTR will provide an opportunity for stocktaking and revision of results framework to dimension combined results of CWA. Details on M&E activities are outlined in the POM.

47. **The Project will support the organization of WASH annual review meetings.** These meetings will be organized by the national WASH coordination office, regional WASH coordination offices, and WASH sector PMUs to track implementation progress and provide feedback for improvement. This platform will be used to enhance learning exchange among woredas and towns. The best-performing woredas and town utilities will be recognized based on predefined service delivery result indicators, creating competition to encourage the achievement of results.

C. Sustainability

48. **The Project design includes a series of measures to ensure the sustainability of the investments.** It is oriented by targets set forth in the OWNP Phase II document, aimed to strengthen country systems at all levels, enhancing planning, monitoring, and implementation of WSS services. The Project will enhance communities' and urban water utilities' capacities to effectively manage and sustain WSS services. For rural water supply, post-construction support is proposed to enable WASHCOMS to better sustain their water services. For urban water supply, subsidies will be gradually decreased from small- to medium-sized towns, in line with GoE policies, to promote cost recovery. Incorporation and dimensioning of water resources will better orient design and management of water supply infrastructure to address issues of water resource sustainability and to enhance resilience. The inclusion of water quality monitoring at the woreda level will help address contamination issues. Operationalization of MIS will increase accountability and ensure all levels of government actively engage in the provision of sustainable WSS services.

IV. PROJECT APPRAISAL SUMMARY

A. Technical, Economic and Financial Analysis

49. **This Project will provide safe WSS services and promote hygienic practices for approximately 3 million people, of which 2 million live in rural areas and 1 million live in small- and medium-sized towns.** The Project prioritizes interventions in communities with low service coverage and high prevalence of diarrhea and stunting in water-stressed, drought and flood-prone areas, which in most cases are home to the poorest households most vulnerable to climate shocks. Beneficiaries will also include users of health and education facilities without adequate WASH services. In addition, WSS service providers will benefit from the supported institutional strengthening and income generation interventions. Detailed methodology and outputs are outlined in Annex 3.

50. **The Project will promote "nutrition-sensitive" interventions by targeting areas where stunting (a proxy indicator for chronic undernutrition) and water- and excreta-related diseases are most prevalent**. Interventions will complement the National Nutrition Program by improving WASH in health centers and schools; increasing access to WSS services; and promoting hygienic behaviors at health facilities, schools, and households.

Rural WASH

51. **The rural water component is economically viable for all types of technologies and in aggregate for all water supply schemes, as measured by the net present value (NPV) and economic internal rate of return (EIRR) using a discount rate of 10 percent.** The analysis of rural water supply is based on a cost-benefit analysis of 8,260 rural water schemes to be financed under Components 1 and 4, totaling US$175 million (about 50 percent of the total Project cost). The average EIRR for rural water supply schemes is 24.2 percent, with details for each technology option outlined in Table 1. This analysis is more conservative than the findings of a global study on costs, benefits, and financing of achieving post-2015 targets for household WASH.[35] As shown in Table 1 as the technology selection shifts toward more elaborate schemes, the per capita cost increases and the return to investment is reduced.

Table 1: Summary of NPV and EIRR by Scheme Type

No.	Type of Water Supply Technology	NPV (in million US$)	EIRR	Per Capita Cost (US$)
1	Hand-dug well	US$18.83	131.6%	US$20.32
2	On-spot spring development	US$28.27	183.9%	US$16.36
3	Shallow well with hand pump	US$9.86	37.4%	US$38.57
5	Other on-spot water source development	US$4.82	37.4%	US$26.81
6	Rural piped system–large	US$9.57	15.9%	US$115.24
7	Rural piped system–medium	US$11.50	18.7%	US$100.41
8	Rural piped system –small	US$0.44	10.4%	US$121.39
	Total	US$63.25	24.2%	

52. **Several other potential benefits are not factored into the cost-benefit analysis because of the lack of reliable data.** Some of these include: (i) nontangible benefits of water quality, sustainability of service, and an estimated value of loss of life avoided because of improvements in water supply; (ii) reduced coping costs that households would

[35] Guy Hutton, "Costs, Benefits and Financing of Post-2015 WASH Targets," 2015; https://www.un.org/waterforlifedecade/waterandsustainabledevelopment2015/pdf/Guy_HuttonGDG.pdf.

otherwise spend to fill the service gap using alternative sources; (iii) reduction in girls' school dropout rates; (iv) women's empowerment; and (v) positive impacts on tourism and businesses. Therefore, the estimated benefits from the Project can be considered conservative, and it can reasonably be assumed that the actual economic benefits will be much higher than what are presented.

Urban WASH

53. **The urban component of the Project is economically viable**, with positive NPV (US$50.9 million) and EIRR (26.8 percent) greater than the 10 percent discount rate used in the analysis. However, for the financial analysis the NPV is negative and the financial interim rate of return (FIRR) is less than the discount rate. For the financial NPV to be positive, a series of operational efficiency measures and an increase in tariffs are needed to ensure the financial sustainability of urban water utilities. Funding for these interventions is encompassed in the support to utilities under this Project.

54. **Sampled small towns can fully cover their operational expenses with an average operational coverage ratio of 1.12.** The surplus generated by these small-scale service providers, however, is very low and inadequate to finance any large-scale maintenance and expansion of services. Hence, the GoE provides subsidies to small towns in the form of fiscal transfers (block grants), which are matched by funding from regional and municipal governments.

55. **Medium-sized towns will be financed with government loans granted through the WRDF as well as matching funds from the respective regions, city administrations, and utilities.** The agreed terms and conditions of the loans are a 3 percent interest rate, 5-year grace period, and 25- to 30-year payment period. The WRDF will conduct a rigorous technical and financial appraisal to determine the amount that a town can borrow.

56. **Interventions to strengthen water resource planning and monitoring are expected to improve availability and access to reliable information on water resources and enhance national capacity for regular forecasting and early warning systems**. In addition to informing the design of water supply schemes, these interventions have significant socioeconomic benefits: they will inform and improve decisions by governments, utilities, households, organizations, and businesses to mitigate the impact and reduce losses from droughts and floods. Global studies have shown that the use of meteorological- and hydrological-related information can deliver enormous socioeconomic benefits to society. However, these benefits are not included in the economic analysis due to lack of adequate and reliable information.

57. **A greenhouse gas (GHG) analysis estimated 4,753 tonnes of carbon dioxide equivalent (tCO_2-eq) as the net emissions over the Project's 25-year economic lifetime.** The estimated average annual emissions are 189 tCO_2-eq, and the estimated gross lifetime emissions are 257,522 tCO_2-eq. The rural piped water supply systems under Subcomponents 1.A and 4.2 have estimated net emissions of 4,061 tCO_2-eq due to electricity use, though this subcomponent also locks in several zero-emissions systems—including on-spot springs, boreholes with hand pumps, and rainwater harvesting—that ensure beneficiaries will not seek more emissive forms of water collection. The relatively low emissions are due to promotion of renewable energy sources and a connection to the national grid where possible. Electricity from the national grid is predominantly generated from clean hydropower sources. The urban water supply systems under Component 2 have estimated net emissions of 1,442 tCO_2-eq from the expansion of water supply systems, but also net emissions of -88 tCO_2-eq due to energy-efficiency gains as a result of NRW reduction from 39 percent to 15 percent. The fecal sludge management activities under Component 2 are expected to have net emissions of -662 tCO_2-eq, which is broken up into 26 tCO_2-eq due to use of collection trucks and -687 tCO2-eq from the daily removal of fecal sludge from latrines and septic systems.

58. **The global cost of increased GHG emissions due to the Project is estimated using the shadow price of carbon recommended for World Bank Group projects.** The net shadow monetary value was added to the Project's incremental financial cash flows, and the EIRR was recalculated. Considering the carbon shadow pricing, the NPV for

small towns falls by US$0.29 million for the upper bound price and US$0.15 million for the lower bound price. The reduction for rural water supply is only US$0.11 million for the upper bound price and US$0.05 million for the lower bound price.

B. Fiduciary

Financial Management (FM)

59. **An FM assessment was conducted in accordance with the World Bank's FM manual** (issued by the FM Sector Board on March 2010 and updated on February 2017). The main FM risks identified are related to the large number and limited capacity of implementing entities, especially at the woreda level, which might lead to delays in the flow of funds and reporting. Staffing capacity and turnover; weak capacity at the WDC, MoF, and regional levels; and delays in addressing audit issues were also noted. In addition, internal control weaknesses and weaknesses in internal audits are also a key risk. Action plans have been agreed to and will address the weaknesses observed above.

60. **FM arrangements.** The FM arrangements for the program largely follow the existing arrangements of the WASHP (P133591) but have been slightly revised to address challenges and incorporate lessons learned, including areas of continued capacity building and strengthening of implementing agencies at all levels. The Project's FM arrangements will be coordinated and managed by the MoF at the federal level, the bureaus of finance (BoFs) at the regional level, the zonal bureaus of finance (ZoFs) at the zonal levels (for some regions), and WoFs at the woreda level. The CWA follows the GoE's sector-wide approach, where each DP signs a bilateral agreement with the GoE. The World Bank's fiduciary policies apply for all CWA-funded activities. The Project budget will continue to be proclaimed at the federal level in the name of the implementing ministries. Implementing entities will be notified of the approved budget at the beginning of each budget year. Funds of this Project will be deposited into a segregated, designated account maintained at the National Bank of Ethiopia and managed by the MoF. Project funds will flow from the segregated, designated account into the CWA that will be utilized to transfer funds to federal implementing entities and regions. The Project will use the GoE's established mechanisms for fiscal transfers (Channel 1). All disbursement methods are applicable, and the Project will use report-based disbursement, through submission of IFRs with two quarters of expenditure forecasts to the World Bank. Based on estimated forecasts and documentation of past advances through expenditures, Project accounts will be replenished accordingly using the IFRs. The Project disbursement categories will be aligned to the Project components or parts, but an additional category will be created for the CERC subcomponent. Detailed arrangements including FM arrangements pertaining to the CERC subcomponent will be incorporated into the POM and approved by the World Bank. Quarterly IFRs will be prepared and submitted within 60 days of the end of the quarter. The FM manual will be revised to improve the Program's FM activities as needed. The program will have an independent auditor's report every year to be submitted to the World Bank within six months after the end of the year. Details of the FM arrangements are outlined in Annex 1.

61. **The residual FM risk is rated as "Substantial," provided that mitigation measures are implemented.** Based on the assessment, the proposed FM arrangements meet the World Bank's Policy and Directives on Investment Project Financing requirements. They provide, with reasonable assurance, accurate and timely information on the status of the Project as required by the IDA. The results of the FM assessment and agreed action plan are outlined in Annex 1.

Procurement

62. **The Borrower has prepared the Project Procurement Strategy for Development (PPSD) and drafted a procurement plan for the first 18 months of the Project implementation**. To ensure the Project's readiness for implementation, this procurement plan incorporates a series of identified subprojects that are under preparation and that will be tendered or signed by Project effectiveness. The PPSD will apply for all CWA-funded activities (pooled funds from the World Bank and contributing DPs). This procurement plan was agreed between the Borrower and the World Bank and will be available at the PMU in the WDC. The plan will also be available in the Project's files and the

World Bank's external website. The procurement plan will be updated by the Project team annually or as required to reflect the actual Project implementation needs and improvements in institutional capacity.

63. **The procurement arrangements for this Project will follow the existing arrangement of the WASHP except for a slightly modified arrangement at the federal level, in which the WDC will be responsible for the overall fiduciary aspects of the Project.** The WDC has established a separate Procurement and Contract Management Directorate made up of the procurement and contract management staff from the former MoWIE-PMU. Staff in the newly organized WDC have gained reasonable expertise in procurement and contract management. A procurement capacity assessment of the MoWIE, WDC, WRDF, as well as four sample regions (Afar, Benishangul-Gumuz, Oromia, and SNNP) reviewed the Project implementation structure to determine risks and mitigation measures. All implementing agencies have more than a decade of experience in implementing World Bank–financed operations. The assessment, however, highlighted capacity gaps, particularly at the regional and woreda levels, which have led in some cases to noncompliance with critical procedures. To mitigate the key risks identified, a detailed action plan has been prepared. Details of the findings of the assessments and action plan can be found in Annex 1.

64. **Procurement for the Project will be carried out following the World Bank's "Procurement Regulations for Investment Project Financing (IPF) Borrowers" of July 2016, revised November 2017 and August 2018**; Guidelines on Preventing and Combating Fraud and Corruption in Projects Financed by IBRD Loans and IDA Credits and Grants, revised as of July 1, 2016; and the provisions stipulated in the general conditions of the legal agreement.

65. **The World Bank will provide oversight of all CWA procurement activities through prior reviews, which will be based on the risk level assessed and shall be updated annually**. Based on the risk rating, the Borrower shall seek the World Bank's prior review for contracts of values detailed in Annex 1. The World Bank will also review the procurement management of the implementing agencies as part of the Project Implementation Support Mission, which is carried out on a biannual basis. In addition, the GoE shall: (i) appoint the Office of the Federal Audit General (OFAG) to carry out annual independent procurement reviews or an independent procurement auditor to carry out annual independent procurement audits; and (ii) submit the procurement review or audit report to the World Bank not later than six months after the end of the audited period (fiscal year).

C. Safeguards

Environmental Safeguards

66. **The Project is a Category B according to the World Bank's OP/BP 4.01 Environmental Assessment,** as the major impacts are site specific, reversible, and temporary in nature and scope; can be easily and cost-effectively mitigated; and have a limited geographic footprint, and their mitigation measures are known. The Project triggers safeguard policies on Environmental Assessment (Operational Policy (OP)/Bank Policy (BP) 4.01), Natural Habitats (OP/BP 4.04), Physical Cultural Resources (OP/BP 4.11), Safety of Dams (OP/BP 4.37), and Projects on International Waterways (OP/BP 7.50). The potential subprojects include construction, rehabilitation, and optimization of urban water production, treatment, and distribution systems; construction, rehabilitation, and management structures for public and communal sanitation facilities; and construction and upgrading of household sanitation facilities. The following safeguard policies and instruments will apply to all CWA-financed activities.

67. **The environmental safeguard issues of the Project are primarily associated with rehabilitation and construction of water supply and small-scale sanitation facilities (public, communal, and institutional).** The overall environmental impacts of the Project are expected to be positive, especially as planned activities will provide safe WASH facilities, resulting in health and economic benefits. However, some negative impacts may arise, including: (i) water-borne diseases (e.g., malaria, skin diseases, etc.) caused by exposure to stagnant water resulting from a lack of drainage in the immediate surroundings of the water source; (ii) reduced water flow downstream, resulting in potential conflict between upstream and downstream users; (iii) groundwater contamination through wells during

construction or operation; (iv) waste material extracted from wells (hand-dug wells) or waste drilling cuttings and drilling mud (boreholes) that are not disposed of or reclaimed properly; (v) temporary increase in the suspended solids content of water and impact on users downstream during construction; and (vi) for springs in mountainous areas, potential impacts on fragile ecosystems and wetlands. The sanitation component can also have health hazards related to waste handling and odor and the possibility of microbial water contamination. Further details on assessments, mitigation measures, and applicable environmental safeguard instruments are found in Annex 1.

68. **The anticipated adverse environmental effects of this Project are expected to be moderate.** The Borrower has gradually increased its capacity to prepare and apply the environmental and social safeguard instruments through the ongoing WASHP. The World Bank will also provide TA in the form of capacity-building activities to the implementing entities so that they can adequately manage the safeguard aspects of the Project during implementation. To address the environmental risks and impacts, the existing Environmental and Social Management Framework (ESMF) was updated, cleared, and disclosed in-country on January 14, 2019, and by the World Bank on January 15, 2019. The ESMF addresses: (i) institutional arrangements; (ii) subproject screening procedures; (iii) responsibilities of the different stakeholders during implementation and operation stages; and (iv) environmental monitoring and audits. The required mitigation plans, such as environmental and social management plans, will be prepared before the commencement of any civil work subproject.

Social Safeguards

69. **The Project's anticipated social impacts have triggered OP/BP 4.12 (Involuntary Resettlement) and OP/BP 4.10 (Indigenous Peoples)**. In keeping with good practices established under the ongoing WASHP, this Project has put in place mitigation mechanisms acceptable to the World Bank to mitigate these impacts. The Resettlement Policy Framework (RPF) used under the current WASHP has been updated to address any potential impacts on land and properties, which are expected to be site specific and minor. The screening conducted by the World Bank and reinforced by the Constitution of Ethiopia indicates that most of the population identifies itself as having the characteristics defined under OP/BP 4.10 as indigenous to the country. Therefore, in lieu of an Indigenous People's Framework, a social assessment prepared for the WASHP has been updated. The RPF and social assessment were disclosed in-country on January 15, 2016, and by the World Bank on January 16, 2019. Details of the Project's social safeguards are provided in Annex 2.

70. **Gender.** Inadequate WASH infrastructure disproportionately affects women and girls, who primarily bear the burden of water collection over long distances, OD practices, and lack of dedicated sanitation facilities at schools, which are associated with negative effects on well-being, school attendance, and GBV threats. One of the identified gaps is the limited representation of women in the planning, implementation, and O&M of WASH facilities, leading to significant and continuing limitations in addressing women and girls' specific WASH needs. Ensuring women's participation and promoting their decision-making roles will help to better inform the design of the proposed WASH infrastructure to better suit their needs. The Project includes actions to ensure women actively participate in (i) program-related public consultations and (ii) management decisions of community WASH services. The proposed actions will be closely monitored in the Results Framework by an indicator tracking the proportion of WASHCOMs with at least 45 percent participation from women. A Gender Action Plan (GAP) was prepared for the Project, informed by the social assessment and additionally identified gaps (details in Annex 1).

71. **Disability and inclusion**. The Project will develop an inclusive WASH strategy on disability. The strategy will help the Project ensure fully inclusive and accessible WASH facilities for all, from the household to public levels. The strategy will put in place tangible measures to enable all, including persons with disabilities, to fully and equally participate, and contribute in the WASH planning, implementation, management, and O&M of WASH facilities.

72. **GBV and labor influx**. Experience and fieldwork findings show that jobs created by the ongoing WASHP (P133591) were carried out by local entities and no physical infrastructure construction has resulted in labor influx in towns and woredas. Hence, associated risks of labor influx, including GBV, are low for this Project. However, to preclude any GBV and sexual exploitation risk during the construction period, the Project will adopt a zero-tolerance policy on sexual harassment and abuse of workers and community members (especially female). The Project will ensure that contractors prepare a code of conduct for workers and fully implement it during construction. In addition, the Project will reduce OD and will promote gender-informed designs, such as separate WASH facilities for security and privacy, to mitigate the risk of sexual harassment.

73. **Citizen engagement.** The MIS will incorporate indicators to capture user feedback on service delivery and sanitation outcomes. The Project will further facilitate citizen's empowerment by conducting social M&E surveys with beneficiaries before the midterm review and post-implementation to evaluate the impact on the ground. The surveys will use gender-disaggregated data to measure and verify citizens' perceptions of the Project's activities and will serve as a tool to identify issues and recommendations for further improvements in the WSS sector. In addition, the Project will strengthen the grievance redress mechanism (GRM) established in each participating woreda and town including at the kebele level. It will ensure that the system is easily accessible, with clear procedures to receive, review, address, and refer different types of complaints submitted to the Grievance Redress Committee, with deadlines for actions and communication with complainants. The committee that was formed for the WASHP (P133591) will continue serving for this operation. The Project will ensure that these committee members receive appropriate training and that required logistics are available for them to follow up and address complaints in a satisfactory manner.

74. **Other Safeguards**

75. **Safety of Dams (OP/BP 4.37).** The Project may finance small water harvesting structures and small dams that will require support to ensure the safety of the developed infrastructure. A Small Dam Safety Guideline developed by the Ministry of Agriculture, and the Small Dam Safety Guidelines developed by MoWIE will be used to guide activities related to these structures. Both guidelines comply with the World Bank's policy for Safety of Dams and are in use by other national programs such as the Agriculture Growth Program and the Productive Safety Net Program. Impact assessment, screening, and mitigation measures are covered under OP/BP 4.01 and in the ESMF.

76. **Physical and Cultural Resources (OP/BP 4.11).** This policy is triggered to avoid and mitigate any adverse impacts of the Project on physical and cultural resources. Physical and cultural resources will be addressed through the screening process outlined in the disclosed ESMF. Additionally, the Environmental Guidelines for Contractors include provisions for handling chance finds. The Project will not finance any subproject identified through the screening process to have potential adverse impacts.

77. **Projects on International Waterways (OP/BP 7.50).** Water supply for rural communities, and small- and medium-sized towns may be abstracted from tributaries that contribute to transboundary watercourses. Although 90 percent of water supply will be abstracted from groundwater aquifers, some are linked to surface water recharge, and others are transboundary aquifers. the Project will not cause appreciable harm to the riparian countries, and (ii) no activities are expected to have any adverse effects on the water quantity or quality of any of the waterways or on any of the riparians. Riparian countries have been notified regarding potential extraction and impact on transboundary waters. Somalia responded, requesting additional time to review notification information, and an additional month was provided to facilitate its review. Somalia subsequently requested additional information, which was provided to address the queries raised. Egypt and Kenya responded positively, while no response was received from the remaining four riparian countries (Djibouti, Eritrea, South Sudan and Sudan) that were notified. The notification process under Operating Policy 7.50 has been completed and satisfied.

Grievance Redress Mechanisms

78. **The Project will strengthen or establish the GRM for each of the participating woredas and towns, including at the kebele level.** It will ensure that the system is easily accessible, and has clear procedures to receive, review, and address or refer different types of complaints submitted to the Grievance Redress Committee, with deadlines for actions and communication with complainants. The Project will further ensure that women are adequately represented (by a share of at least 45 percent women) in the committee. The Project will provide capacity-building training to the committee members and allocate required budgets. The GRM will have a proper monitoring and reporting system. All GRM cases will be registered, and quarterly progress reports will be submitted to regional and federal agencies, and the World Bank.

79. **Communities and individuals who believe that they are adversely affected by a World Bank–supported Project may submit complaints through existing Project-level grievance redress mechanisms or to the World Bank's Grievance Redress Service (GRS).** The GRS ensures that complaints received are promptly reviewed to address Project-related concerns. Project-affected communities and individuals may submit their complaint to the World Bank's independent Inspection Panel, which determines whether harm occurred, or could occur, as a result of the World Bank's noncompliance with its policies and procedures. Complaints may be submitted at any time after concerns have been brought directly to the World Bank's attention, and the Bank management has been given an opportunity to respond. For information on how to submit complaints to the World Bank's corporate GRS, please visit the website http://www.worldbank.org/en/projects-operations/products-and-services/grievance-redress-service. For information on how to submit complaints to the World Bank Inspection Panel, please visit www.inspectionpanel.org.

V. KEY RISKS

80. **The overall Project risk is assessed as "Substantial" based on identified risks and ratings highlighted below.** Implementation of the WASHP (P133591) has provided valuable lessons that contributed to this risk assessment.

81. **Political and governance risks are high.** Political and social unrest have been prevalent, creating difficulties in mobility and access to certain communities. The appointment of a new Prime Minister in March 2018 has helped quell much of the volatility, and a state of emergency was officially lifted in May 2018. There is a risk that similar unrest may occur in the future. To mitigate this risk, coordination between federal and regional governments will be strengthened. Before mobilization of a contractor for civil works, due attention to community sensitization and implementation of safeguard instruments will be critical to ensure that potential localized unrest does not overtly impact Project-related activities. Annual planning exercises will be used to shift the focus of rural communities and towns to areas where implementation is feasible if a decision by the regional steering committee is endorsed to select new geographic areas.

82. **Technical design risks are substantial.** Program design builds on the successful experience of the ongoing WASHP (P133591), bringing together four ministries and several donors to deliver WSS services across the country using country systems. The proposed Project design has internalized lessons learned and is following the GoE's stepped approach. It is establishing mechanisms for TA and establishing readiness criteria that ensure adequate institutional capacity is in place in parallel with investments in infrastructure for WSS services. However, in recognition of the increased complexity in addressing WRM and climate adaptation challenges, the technical design risk remains substantial.

83. **Institutional capacity and sustainability risks are substantial.** Institutional capacity has been created and enhanced through current WSS interventions. Considering this operation will expand to new woredas that have limited familiarity with coordinated planning and monitoring mechanisms that have been put in place through CWA, the risk remains substantial. Current interventions have highlighted gaps in the institutional capacity of WASHCOMs,

boards, and utilities to plan and manage infrastructure, which could hamper efforts to provide WSS services sustainably. Other measures such as increased and tailored capacity building will be incorporated into proposed activities. In addition, the establishment of functional MIS will provide valuable information on the functionality of water supply schemes and can be used as a proxy for gaps in institutional capacities and allow for local and regional governments to respond accordingly.

84. **The fiduciary risks are substantial.** Mitigation measures have been identified to address existing gaps and bottlenecks related to: (i) the decentralized nature of implementation and the number of entities involved, which could lead to delays in reporting, accounting, and fund flow; (ii) FM and procurement staffing capacity and turnover at all levels; (iii) the weak FM and procurement capacity at the WDC, MoF, and regional levels; (iv) delays in addressing audit issues; (v) weak procurement and contract management; and (vi) delays, deviations, and poor quality of procurement and bid documents. A detailed fiduciary assessment identified areas of continued capacity building and strengthening of implementing agencies at all levels, outlined in Annex 1.

85. **Environment and social risks are rated substantial** based on the scope of the proposed operation and implementation experience from the ongoing WASHP operation. Although the capacity of safeguard experts has improved significantly, high staff turnover and persistent gaps in capacity to attend to the decentralized nature of this operation, especially at the regional and woreda levels, remains of concern. Risks of GBV are associated with water collection over long distances, high prevalence of OD and the poor quality of sanitation facilities that compromise the convenience, safety, health, and dignity of rural women and girls as well as potential labor influx during construction. Continued training and support are planned to mitigate the risk of limited safeguard capacity and oversight. The scope of CFTs' terms of reference (ToR) will be expanded to provide safeguard backstopping, ensuring that adequate prescreening and mitigation measures are implemented. Furthermore, strengthening of GRM and community consultations and active participation will be carried out to ensure social and environmental impacts are adequately dimensioned and addressed. To address risks of GBV the Project design has dimensioned distance and citing of water supply schemes within safe walking distance (within the community) and developed a series of interventions to increase safe and adequate sanitation. To preclude any GBV and sexual exploitation risk during the construction period, the Project will adopt a zero-tolerance policy on sexual harassment and abuse of workers and community members (especially female)

86. **Stakeholder risk is rated as substantial** due to the following reasons: (i) use of water resources across woredas and communities, particularly in drought-prone areas, and improper capping of communal water sources (e.g., natural springs) can lead to social tension between multiple users; (ii) movement and displacement from neighboring countries or other regions due to conflicts can add pressure to localized water sources and services; and (iii) the presence of multiple implementing agencies means there might be conflicting priorities. These risks will be mitigated through enhanced scrutiny and emphasis on the completion of comprehensive environmental and social screening, participatory consultations during scheme design and construction, and training of WASHCOMs. For woredas selected under Component 4, where water conflicts are more acute, a dedicated team of specialists will carry out a feasibility study to better orient design, considering the availability of water resources. Proposals for the design of schemes will be adequately consulted using Project-contracted CFTs to ensure that all stakeholders, including traditional leadership structures, agree with the proposed infrastructure development and management model. In addition, key actions have been identified to strengthen the Project's GRM. Community consultations and mechanisms to reduce conflict have been adequately dimensioned in all safeguard instruments including the ESMF, RPF, and social assessment. Project-contracted CFTs will play a critical role in supporting communities to establish WASHCOMs, vet appropriate technology options, and put in place mechanisms to sustainably manage service delivery. Regarding multiple implementing agencies, the WIF outlines clear roles and responsibilities and budget allocation for each sector. The GoE's equity formula is used to orient regional allocations in a transparent manner.

VI. RESULTS FRAMEWORK AND MONITORING

Results Framework
COUNTRY: Ethiopia
One WASH—Consolidated Water Supply, Sanitation, and Hygiene Account Project (One WASH—CWA)

Project Development Objectives(s)

To increase access to safe water supply, sanitation, and hygiene services and strengthen capacity for water resources management and service delivery.

Project Development Objective Indicators

Indicator Name	DLI	Baseline	Intermediate Targets				End Target
			1	2	3	4	
Increased number of people accessing safe drinking water services							
Number of people provided with access to safe drinking water services under the Project (Number)		0.00	201,500.00	854,800.00	1,657,650.00	2,660,950.00	3,012,000.00
Rural (Number)		0.00	201,500.00	750,250.00	1,209,000.00	1,813,500.00	2,015,000.00
Urban (Number)		0.00	0.00	149,550.00	448,650.00	847,450.00	997,000.00
Female (Number)		0.00	100,750.00	427,400.00	828,825.00	1,330,475.00	1,506,000.00
Increased number of people accessing safe sanitation services							
Number of people provided with access to safe sanitation services under the Project (Number)		0.00	0.00	691,450.00	1,069,500.00	1,681,600.00	1,893,000.00
Rural (Number)		0.00	0.00	590,200.00	870,600.00	1,305,900.00	1,451,000.00

Indicator Name	DLI	Baseline	Intermediate Targets				End Target
			1	2	3	4	
Urban (Number)		0.00	0.00	92,250.00	198,900.00	375,700.00	442,000.00
Female (Number)		0.00	0.00	345,725.00	534,750.00	840,800.00	946,500.00
Improved hygiene behaviour and practice							
Proportion of kebeles within the Project woredas declared and verified as open defecation free (Percentage)		0.00	0.00	28.00	48.00	72.00	80.00
Strengthened capacity for service delivery of water service providers							
Proportion of water schemes that are functional and supply safe drinking water in areas under the Project (Percentage)		0.00	0.00	20.00	35.00	54.00	75.00
Rural (Percentage)		0.00	0.00	21.00	36.00	54.00	75.00
Urban (Percentage)		0.00	0.00	15.00	45.00	85.00	100.00
Proportion of urban water service providers covering their operational costs under the Project (Percentage)		0.00	0.00	0.00	45.00	85.00	100.00
Enhanced use of water resource management information system and data							
Proportion of rural and urban water supply scheme designs using data from the water resources management information system (Percentage)		0.00	0.00	19.00	38.00	56.00	75.00

Intermediate Results Indicators by Components

Indicator Name	DLI	Baseline	Intermediate Targets				End Target
			1	2	3	4	
Rural and Pastoral Water Supply, Sanitation, and Hygiene							
Improved community water supply schemes constructed/rehabilitated under the Project (Number)		0.00	826.00	2,891.00	4,956.00	7,434.00	8,260.00
New (Number)		0.00	680.00	2,380.00	4,080.00	6,120.00	6,800.00
Rehabilitation (Number)		0.00	146.00	511.00	876.00	1,314.00	1,460.00
Percentage of water supply schemes with regular water quality and quantity monitoring under the Project woredas (Percentage)		0.00	0.00	21.00	36.00	54.00	75.00
Number of safely managed latrines constructed under the Project (Number)		0.00	0.00	119,700.00	205,200.00	307,800.00	342,000.00
Sanitation marketing centers established and functional under the Project (Number)		0.00	8.00	29.00	50.00	75.00	83.00
Proportion of water supply schemes constructed that are managed by legally established and functional WASHCOMs under the Project (Percentage)		0.00	6.00	21.00	36.00	54.00	60.00
Proportion of WASHCOMs with at least 45 percent participation of women under the Project (Percentage)		0.00	10.00	33.00	57.00	86.00	95.00
Urban Water Supply, Sanitation, and Hygiene							

Indicator Name	DLI	Baseline	Intermediate Targets				End Target
			1	2	3	4	
Additional volume of water available from improved water sources and NRW saving in towns under the Project (Cubic Meter(m3))		0.00	7,130.00	21,389.00	40,400.00	47,530.00	47,530.00
Percentage of water supply schemes with regular water quality and quantity monitoring in towns under the Project (Percentage)		0.00	0.00	15.00	45.00	85.00	100.00
Number of public/communal latrines constructed/rehabilitated in urban towns under the Project (Number)		0.00	0.00	8.00	25.00	46.00	55.00
Number of fecal sludge management systems constructed and providing service in the towns under the Project (Number)		0.00	0.00	3.00	9.00	17.00	20.00
Institutional Water Supply, Sanitation, and Hygiene							
Number of institutions (schools and health facilities) provided with advanced WASH facilities under the Project (Number)		0.00	280.00	980.00	1,680.00	2,520.00	2,800.00
Schools (Number)		0.00	137.00	480.00	822.00	1,233.00	1,370.00
Health Facilities (Number)		0.00	143.00	500.00	858.00	1,287.00	1,430.00
Climate Resilient Water Supply, Sanitation, and Hygiene							
Drought and flood early warning systems enhanced and operational (Yes/No)		No	No	No	Yes	Yes	Yes

Indicator Name	DLI	Baseline	Intermediate Targets				End Target
			1	2	3	4	
Project Management and Institutional Strengthening							
Sector Management Information System (MIS) operationalized (Yes/No)		No	No	Yes	Yes	Yes	Yes
Percentage of grievances registered related to delivery of sub-project benefits that are timely and satisfactorily addressed (Percentage)		0.00	80.00	80.00	80.00	80.00	80.00
Percentage of schemes with completed environmental and social screening processes and against which required mitigation measures including compensations are settled (Percentage)		0.00	10.00	35.00	60.00	90.00	100.00

Monitoring & Evaluation Plan: PDO Indicators

Indicator Name	Definition/Description	Frequency	Datasource	Methodology for Data Collection	Responsibility for Data Collection
Number of people provided with access to safe drinking water services under the Project	The indicator measures the cumulative number of people accessing water services that meet the following conditions: • Quality: water supplied	Annual	Regular WASH MIS reports, HH surveys, and Project progress	Regular WASH MIS reports, HH surveys, and Project progress reports.	National and regional WASH coordination offices, water sector PMUs, Water Resource Development Fund (WRDF), Town Water

	should be free from fecal and priority chemical contamination. • Accessibility: located on premises for urban (as per GTP II standard) and within 30 minutes round trip of the home for rural households. • Availability: water should be available when needed and should be sufficient to serve the community with at least 25 l/c/d for rural and 40-100 l/c/d for urban depending on the size of the town. The indicator is disaggregated into rural and urban and female.		reports.		Utilities (TWUs), and Woreda WASH Team WWTs.
Rural	The indicator measures the cumulative number of people accessing safe drinking water services in rural areas under the project.	Annual	Regular WASH MIS reports, HH surveys, and Project progress reports.	Regular WASH MIS reports, HH surveys, and Project progress reports.	National and regional WASH coordination offices, Water sector PMUs, WRDF and WWTs.
Urban	The indicator measures the cumulative number of people accessing safe drinking water services in	Annual	Regular WASH MIS reports, HH surveys, and	Regular WASH MIS reports, HH surveys, and Project progress reports.	National and regional WASH coordination offices, Water sector PMUs, WRDF and

	urban areas under the Project.		Project progress reports.		TWUs.
Female	The indicator measures the cumulative number of females accessing safe drinking water services both in rural and urban areas under the Project.	Annual	Regular WASH MIS reports, HH surveys, and Project progress reports.	Regular WASH MIS reports, HH surveys, and Project progress reports.	National and regional WASH coordination offices, Water sector PMUs, WRDF, TWUs, and WWTs.
Number of people provided with access to safe sanitation services under the Project	This indicator measures the cumulative number of people accessing safe sanitation facility that meets the following criteria: * Accessibility: an improved facility that is not shared with other households. An improved facility implies the MoH's standard definition. * Quality: Excreta are safely disposed of in situ or emptied, transported, and treated offsite The indicator is disaggregated in to rural and urban and female.	Annual	Regular WASH MIS reports, HH surveys, and Project progress reports.	Regular WASH MIS reports, HH surveys, and Project progress reports.	National and regional WASH coordination offices, water and health sector PMUs, TWUs, WWTs and WASHCOMs.
Rural	This indicator measures the cumulative number of	Annual	Regular WASH MIS	Regular WASH MIS reports, HH surveys,	National and regional WASH coordination

	people accessing a safe sanitation facility in rural areas under the Project		reports, HH surveys, and Project progress reports.	and Project progress reports.	offices, water and health sector PMUs, WWTs and WASHCOMs.
Urban	This indicator measures the cumulative number of people accessing a safe sanitation facility in urban areas under the project.	Annual	Regular WASH MIS reports, HH surveys, and Project progress reports.	Regular WASH MIS reports, HH surveys, and Project progress reports.	National and regional WASH coordination offices, Water and Health sector PMUs, WWTs and WASHCOMs.
Female	This indicator measures the cumulative number of females accessing a safe sanitation facilities under the project	Annual	Regular WASH MIS reports, HH surveys, and Project progress reports.	Regular WASH MIS reports, HH surveys, and Project progress reports.	National and regional WASH coordination offices, Water and Health sector PMUs, WWTs and WASHCOMs.
Proportion of kebeles within the Project woredas declared and verified as open defecation free	This indicator measures the extent to which WASHCOMs supported under the Project are improving community sanitation and hygiene practices beyond the household level. It measures the number of rural kebeles declared and verified as ODF as a result of the Project	Annual	WASH MIS regular report.	Regular WASH MIS report.	National and regional WASH coordination offices, health sector PMUs, WWTs and WASHCOMs.

	interventions on rural sanitation improvement against the total number of kebeles supported within the Project woredas.				
Proportion of water schemes that are functional and supply safe drinking water in areas under the Project	The indicator measures the change in the quality of the drinking water supplies and the functionality as a result of the Project interventions in rural and urban areas under the Project. It provides a reasonable way to ensure that key inputs such as enhanced drinking water quality systems and monitoring mechanisms, adequate collection of user fees, available supply chain and TA through local private sector or local government are in place. It a proxy for measuring the capacity of services providers to safely manage and sustain drinking water supply schemes and services. The terms functional and safe are defined as: Functional: a scheme is considered functional if it provides service at least 80	Annual	Regular WASH MIS reports and Project progress reports.	Regular WASH MIS reports and Project progress reports.	WASHCOMs, WWTs, TWUs, regional and federal water bureaus.

	percent of the year. Safe: drinking water supplied is free from fecal and priority chemical contamination. The indicator is disaggregated into rural and urban.				
Rural	This indicator measures the proportion of water schemes that are functional and supply safe drinking water in rural areas under the Project. The terms functional and safe are defined as: Functional: a scheme that provides service at least 80 percent of the year. Safe: drinking water is free from fecal and priority chemical contamination.	Semi-annual	Regular WASH MIS reports and Project progress reports.	Regular WASH MIS reports and Project progress reports.	National and regional WASH coordination offices, federal and regional water PMUs, WWTs, and WASHCOMs.
Urban	This indicator measures the proportion of water schemes that are functional and supply safe drinking water in small- and medium-size towns under the Project. The terms functional and safe are defined as: Functional: a scheme that	Annual	Regular WASH MIS reports and Program progress reports.	Regular WASH MIS reports and Program progress reports.	TWUs, regional and federal water PMUs, and WASH coordination offices.

	provides service at least 80 percent of the year. Safe: drinking water is free from fecal and priority chemical contamination.				
Proportion of urban water service providers covering their operational costs under the Project	The indicator is also a proxy indicator for measuring sustainability of urban water utilities. It measures the extent to which a utility revenue covers the basic operation and maintenance costs. It is used to assess the improvement in the financial viability of participating utilities as a result of the utility capacity building and operational efficiency interventions.	Annual	Regular Project progress reports.	Regular Project progress reports.	TWUs, national and regional coordination offices and water PMU.
Proportion of rural and urban water supply scheme designs using data from the water resources management information system	The indicator measures accessibility and use of the water resources monitoring system. It measures the use of the water resource data (meteorology, hydrology and groundwater) to inform design and management of water supply systems delivered under the Project.	Quarterly	Regular Project monit oring reports.	Project design documents.	MoWIE and respective regional bureaus.

Monitoring & Evaluation Plan: Intermediate Results Indicators					
Indicator Name	**Definition/Description**	**Frequency**	**Datasource**	**Methodology for Data Collection**	**Responsibility for Data Collection**
Improved community water supply schemes constructed/rehabilitated under the Project	The indicator measures the total number of rural water supply schemes newly constructed and rehabilitated under the rural WASH and the climate resilient WASH components of the Project. It is disaggregated by new and rehabilitated to track the Project's progress towards rehabilitation of nonfunctional schemes.	Semi-annual	Regular Project progress reports.	Regular Project progress reports.	WWTs, regional and national coordination offices, and water sector PMUs.
New	The indicator measures the accumulative number of rural water supply schemes newly constructed under the Project.	Semi-annual	Regular Project progr ess reports.	Regular Project progress reports.	WWTs, regional and national coordination offices, and water sector PMUs.
Rehabilitation	The indicator measures the accumulative number of rural water supply schemes rehabilitated under the Project.	Semi-annual	Regular Program progress reports.	Regular Program progress reports.	WWTs, Regional and national coordination offices and water sector PMUs.
Percentage of water supply schemes with regular water quality and quantity monitoring under the Project woredas	The indicator is a proxy for measuring the quality and sustainability of water supply services. It measures the percentage of water	Semi-annual	Regular WASH MIS reports and Project progress	Regular WASH MIS reports and Project progress reports.	National and regional WASH coordination offices, water sector PMUs, and WWTs.

	supply schemes that have regular (at least quarterly) water quality and quantity monitoring conducted in the Project woredas. It serves to ensure that information on water quality (fecal and primary chemical contamination) and quantity (e.g surface water flows, groundwater levels) is adequately captured, disseminated, and utilized to inform management of water services.		reports.		
Number of safely managed latrines constructed under the Project	The indicator measures the number of safely managed HH latrines newly constructed as a result of the hygiene and sanitation awareness campaigns and sanitation marketing intervention in Project woredas. The definition of safely managed follows the SDGs' standard for accessibility (an improved facility that is not shared with other households) and service quality (excreta are safely disposed of in situ or	Semi-annual	WASH MIS regular reports, regular Project progress reports.	WASH MIS regular reports, regular Project progress reports.	National and regional WASH coordination offices, health sector PMUs, WWTs, WASHCOMs.

	emptied, transported, and treated offsite) and implies MoH's standard for improved latrines (a HH latrine with covered super structure, cleanable slabs/other materials and hand washing facility with water and soap).				
Sanitation marketing centers established and functional under the Project	The indicator measures the Project's sanitation interventions on the supply side. It measures the number of sanitation marketing SM centers established with the support of the Project. Sanitation marketing related activities include construction of sheds for construction of slabs and storage of construction materials, organizing and training SMEs on production of materials, etc.	Annual	Regular Project progress reports.	Regular Project progress reports.	National and regional WASH coordination offices, health sector PMUs, WWTs, and WASHCOMs.
Proportion of water supply schemes constructed that are managed by legally established and functional WASHCOMs under the Project	The indicator measures the extent to which WASHCOMs are legally established to manage their water supply schemes and to which they engage in proper and regular collection of user	Semi-annual	Regular WASH MIS reports and Project progr ess reports.	Regular WASH MIS reports and Project progress reports.	National and regional WASH coordination offices, water sector PMUs, and WASHCOMs.

	fees, regular reporting of WASH status of their community and handle O&M requirements. The indicator is also expected to provide gender-disaggregated information to track female participation in WASHCOMs.				
Proportion of WASHCOMs with at least 45 percent participation of women under the Project	The indicator measures the percentage of WASHCOMs with at least 45 percent participation of women under the Project. It is established as a proxy for measuring the participation of women in decision-making and their influence the design, planning, implementation, and O&M of WASH facilities, based on lessons learned from the WASHP and findings from the social assessment.	Semi-annual	Regular Project progress reports and WASH MIS regular reports.	Regular WASH MIS reports and Project progress reports.	National and regional WASH coordination offices, water sector PMUs and WASHCOM.
Additional volume of water available from improved water sources and NRW saving in towns under the Project	The indicator measures the additional volume of water available as result of water supply interventions for improving service access (improved water sources) and efficiency (non-revenue water reduction) in urban	Semi-annual	Regular Project progress reports.	Regular Project progress reports.	TWUs, regional and national water sector PMUs, and coordination offices.

	towns supported under the Project. It is measured in cubic meters per day (m3/d).				
Percentage of water supply schemes with regular water quality and quantity monitoring in towns under the Project	The indicator is a proxy indicator for measuring quality and sustainability of water supply services. It measures the percentage of water supply schemes that have regular (at least quarterly) water quality and quantity monitoring conducted in the Project towns. It serves to ensure that information on water quality (fecal and primary chemical contamination) and quantity (e.g., surface water flows, groundwater levels) is adequately collected, disseminated, and utilized to inform management of water services.	Semi-annual	Regular Project progress reports.	Regular Project progress reports.	TWUs, regional and national water sector PMUs, and coordination offices.
Number of public/communal latrines constructed/rehabilitated in urban towns under the Project	The indicator measures the number of public/communal latrines constructed or rehabilitated in the urban towns supported under the Project that meet the service quality standard for	Semi-annual	Regular Project progress reports.	Regular Project progress reports.	TWUs, regional and national coordination offices, and health and water sector PMUs.

	safe management of excreta and fecal sludge (excreta are safely disposed of in situ or emptied, transported and treated offsite).				
Number of fecal sludge management systems constructed and providing service in the towns under the Project	The indicator focuses on small towns' sanitation improvement interventions. It measures the number of fecal sludge management systems (from containment to transport and treatment and safe disposal) established and providing service under the Project in urban towns.	Semi-annual	Regular Project progress reports.	Regular Project progress reports.	TWUs, regional and national coordination offices, and water and health sector PMUs.
Number of institutions (schools and health facilities) provided with advanced WASH facilities under the Project	The indicator measures the number of schools and health facilities provided with full advanced WASH packages under the Project.The definitions of advanced WASH package for schools and health facilities are aligned with the SDGs' and follow the MoE's and MoH's standard. They are presented in the disaggregated sub-indicators by schools and health facilities.	Semi-annual	Regular WASH MIS reports and Project progress reports.	Regular WASH MIS reports and Project progress reports.	National and regional WASH Coordination offices, health and education PMUs, and WWTs.

Schools	The indicator measures the number of schools provided with full advanced WASH packages under the Project. The definition of a full advanced WASH package for schools is aligned with the SDGs' and follows the MoE's standard. It includes provision of: (i) water supply, (ii) an improved school sanitation facility, with separate blocks for boys and girls, access for people with limited mobility, and hand washing facility with water and soap; and (iii) dedicated rooms for MHM.	Semi-annual	Regular Project progress reports.	Regular Project progress reports.	National and regional WASH coordination offices, education sector PMUs, and WWTs.
Health Facilities	The indicator measures the number of health facilities provided with a full advanced WASH package under the Project. The definition of a full advanced WASH package is aligned with the SDGs' and follows the MoH's standard. It includes: (i) water supply facility within the compound of the facility; (ii) improved sanitation facilities that are	Semi-annual	Regular Project progress reports.	Regular Project progress reports.	National and regional WASH coordination offices, health sector PMUs, and WWTs.

	usable with at least one toilet dedicated for staff, at least one sex-separated toilet with MHM, and at least one toilet accessible for people with limited mobility; (iii) functional hand washing facility, with water and soap or alcohol-base hand wraps, available at point of care, and within 5 meters of toilets; (iv) health-care waste management facilities for safely treatment and disposal of sharp and infectious waste (incinerator, placenta pit, waste disposal pit).				
Drought and flood early warning systems enhanced and operational	The indicator measures the Project's contribution to enhancing drought and floods early warning systems. The term operational is defined as providing updated and regular forecast, as outlined in the POM.	At mid-term and Project completion	Regular Project progr ess reports.	Regular Project progress reports.	National and regional WASH coordination offices, water PMUs, WWTs, TWUs, and WASHCOMs.
Sector Management Information System (MIS) operationalized	The indicator measures the Project's contribution towards establishing an operational sector MIS. The	Annual	Regular Proejct progr ess reports.	Regular Project progress reports.	National and regional WASH coordination offices, WASH sector PMUs, WWTs, and

	term operational is defined as providing updated and regular information that is disseminated and utilized for better WRM and WASH service delivery.				WASHCOMs.
Percentage of grievances registered related to delivery of sub-project benefits that are timely and satisfactorily addressed	This indicator measures the percentage of the grievances registered that are actually addressed in a timely and satisfactory manner (maximum of one month).	At mid-term and Project completion	Beneficiary survey at mid-term and Project completion.	Beneficiary survey at mid-term and Project completion.	National and regional WASH coordination offices, WASH sector PMUs, WWTs, and TWUs.
Percentage of schemes with completed environmental and social screening processes and against which required mitigation measures including compensations are settled	This indicator measures the percentage of schemes that have completed environmental and social screening processes and have settled required mitigation measures including compensations.	Semi-annual	Regular Project progress reports.	Regular Project progress reports.	National and regional WASH coordination offices, WASH sector PMUs, WWTs, and TWUs.

ANNEX 1: Implementation Arrangements and Support Plan

COUNTRY: Ethiopia
One WASH—Consolidated Water Supply, Sanitation, and Hygiene Account Project (One WASH—CWA)

Strategy and Approach for Implementation Support

1. **The proposed Project will build on and refine the institutional and implementation structures and capacity established through the ongoing Water Supply, Sanitation, and Hygiene Project (WASHP P133591),** including: (i) the necessary coordination structures to jointly plan, implement, monitor, and evaluate WASH sector outcomes at the national, regional, woreda, and town levels; (ii) a robust working platform that utilizes best practices for aid effectiveness and country systems, and that has enabled DPs to align their fiduciary and safeguard procedures with those of the GoE (that applies all World Bank operating policies and procedures for CWA); and (iii) the main building blocks for a sector M&E system with the potential to be scaled up. The proposed implementation structures and fiduciary, safeguard, and M&E arrangements proposed for this Project will be applied to all Consolidated WASH Accounts (CWA) and incorporated into the Program Operations Manual (POM).

2. **The Project's highest governing body is the NWSC, composed of the ministers and state ministers of water, health, education, and finance and chaired by the Ministry of Water, Irrigation, and Energy (MoWIE) through the newly established WDC.** The technical arm of the NWSC is the National WASH Technical Team, consisting of directors from the four participating ministries. Likewise, RWSCs are established at the regional level. For large regions, where implementation is further delegated to zones, zonal WASH management and coordination structures will be established to facilitate active engagement and strengthen Project implementation, namely in the regions of Amhara, Oromia, and the SNNP.

3. **Consistent with Ethiopia's decentralization policy, woredas, towns, and communities are responsible for planning and managing their WSS services.** At the woreda and town level, WASH activities are implemented by the woreda or town WASH teams, which are led by the woreda or town administrators and composed of members from four sector offices—water, health, education, and finance—with additional members from the women's affairs and agriculture offices. Woredas will nominate a focal point for safeguards to provide oversight to subprojects with the support of regional or zonal safeguard staff. At the community level, WASH committees (WASHCOMs) consisting of elected community members will be formed, with at least 45 percent female participation, to undertake planning and O&M of WASH facilities. WASHCOMs are legally recognized entities. At the town level, a Town WASH Steering Committee will conduct oversight of the Project activities.

4. **The National WASH Coordination Office (NWCO) and Regional WASH Coordination Offices (RWCOs) are responsible for ensuring coordination among sectors, and for the planning and oversight of Project implementation at the federal and regional levels.** The NWCO and RWCOs will prepare consolidated WASH plans and budgets, lead biannual joint technical reviews, and consolidate and submit biannual project performance (physical and financial) reports. They will report to the NWSCs and the RWSCs, respectively.

5. **WASH-sector-related ministries (WDC, MoH, MoE, and MoF) and the respective bureaus and offices at the regional, zonal, and woreda levels will continue to be the primary implementing agencies with oversight from the respective steering committees.** The WASH project management units (PMUs) established in each of the ministries will be responsible for the Project's implementation. The existing water PMU will be embedded into the WDC and will be responsible for day-to-day technical oversight of WASH activities. The WDC PMU will have dedicated staff to provide coordination, FM, procurement, safeguards, and M&E oversight of the Project. It will consolidate all

procurement plans (PPs) and collate financial reports on behalf of all other implementing agencies. In addition, the MoF, regional BoFs, and WoFs will be responsible for managing funds, preparing quarterly IFRs, and facilitating annual audits.

6. **The WRDF will be the implementing agency for activities in the selected medium-sized towns and will be responsible for the appraisal and M&E of subprojects.** The utilities of the proposed medium-sized towns will provide additional supervision support alongside the WRDF's technical backstopping.

7. Specific duties and responsibilities of WASH structures at each level are outlined in Table A1.1 and further detailed in the adopted WASH WIF and the POM.

Table A1.1: Coordination and Implementation Arrangements for One WASH–CWA

Level	Governance and Guidance	Oversight and Management	Program Implementation	Program Coordination
Federal	National WASH **Steering Committee**	National WASH **Technical Team**	WDC PMU and federal WASH PMUs for education, health, and finance (Channel 1 Coordinator)	**National WASH Coordination Office**
Regional	Regional WASH **Steering Committee**	Regional WASH **Technical Team**	Regional sectors' WPMUs for education, health, water, and finance	Regional WASH **Coordination Office**
Special zones (or other zones where applicable)	Zonal WASH **Management Team**		Zonal WPMUs for water, health, education, and finance	Zonal WASH **Coordination Office**
Woreda	Woreda WASH Steering Committee (comprised of woreda cabinet members)		**Woreda WASH Team** Officers from education, health, water, and finance offices; other desks such as women's affairs and agriculture	
Town	Town WASH Steering Committee (comprised of town cabinet members)		Town WASH Technical Team, Municipality Health Desk/Education Desk, Town Water Board and Water Utility	

Financial Management

8. **A FM assessment was conducted in accordance with the Financial Management Manual issued by the Financial Management Sector Board on March 2010.** The World Bank has conducted the assessment building on the lessons learnt on the current Project, Ethiopia WASH II (first phase of One WASH–CWA). In addition, assessments were conducted from federal- to woreda-level entities selected on a sample basis.

9. **The objective of the assessment was to determine whether the participating institutions have FM systems and related capacity in place adequate to satisfy the World Bank's IPF policy and directives**. The policies and procedures require that the Borrower maintains, or causes to be maintained, for Project implementation, FM arrangements that are acceptable to the World Bank and that, as part of the overall arrangements in place for implementing the Project, that they provide reasonable assurance that the proceeds of the financing are used for the purposes for which they are granted. FM arrangements are the planning, budgeting, accounting, internal control, funds flow, financial reporting, and auditing arrangements of the Borrower and entity or entities responsible for

Project implementation. The FM assessment considers the degree to which (i) the budgeted expenditures are realistic, prepared with due regard to relevant policies, and executed in an orderly and predictable manner; (ii) reasonable records are maintained and financial reports produced and disseminated for decision making, management, and reporting; (iii) adequate funds are available to finance the Project; (iv) there are reasonable controls over Project funds; and (v) independent and competent audit arrangements are in place. The assessment also included the identification of key perceived FM risks that may affect program implementation and proceeded to develop mitigation measures against such risks**.**

10. **The FM risk for the Project is rated as "Substantial," provided that mitigating actions are implemented**. The main strength of the Project is that it builds on the accumulated experience and knowledge of the current World Bank operations WASHP (P133591), including FM arrangements. The main weaknesses of the FM arrangements include the high number of implementing entities and limited FM capacity at the subnational level, which may lead to delays in fund flow and reporting. In addition, staff turnover may continue to affect the Project FM functions, including internal audit, especially in the woredas. The lessons learnt from previous phases highlighted challenges in: (i) timely budget preparation, notification, budget monitoring, and utilization issues; (ii) capacity and accountability issues such as manual accounting, documenting advance as expenditures, size of advances and poor settlement thereof, and poor quality of FM reports; (iii) staffing turnover; and (iv) internal control and internal audit challenges. Action plans that encompass the mitigation measures to address these weaknesses and mitigate FM risks are prepared and agreed to.

11. **The FM arrangements for the Project will be largely based on the FM systems and structures established under previous phases, with measures to address challenges and lessons noted in the current situation as well as new developments**. The Project FM arrangements will be coordinated and managed by the MoF at the federal level, BoFs at the regional levels, ZoFs at the zonal levels, and WoFs at the woreda levels. The Project will revise the FM manual, under previous phases, within two months of project effectiveness, to take on board the lessons learnt and new design features to address challenges. Budget procedures are laid out, which are consistent with government budget procedures. The Project budget will continue to be proclaimed in the name of MoE, MoH and WDC. Efforts to strengthen the budget dissemination aspect as well as budget control/monitoring will be intensified. Internal control strengthening mechanisms will be accorded due attention. The internal audit units at all levels are expected to review the Project expenditures but, in the meantime, internal auditors will be recruited at the MoF and/or BoF levels to close gaps in internal audit activities. Accounting and audit staffing capacities and numbers will be reviewed and increased as appropriate. Capacity-building measures need to be planned and conducted.

12. **The Project will continue to prepare and submit quarterly unaudited IFRs to the World Bank and CWA partners**. The contents and formats of the IFRs will be refined to incorporate lessons learnt and streamline reporting to avoid challenges experienced during implementation of the WASHP (P133591). Disbursements will be made through the report-based disbursement method using IFRs and six-month cash forecasts. For this purpose, the Project and the MoF will open a segregated US$-designated account for funds from each donor and a local currency pooled account (CWA), for the phase II project. In addition to receiving advances through the designated account, the Project may use other disbursement methods such as reimbursements, direct payments, and special commitments. Implementing entities other than the MoF are also required to open a separate local currency bank account for Project funds.

13. **The Project, in coordination with the OFAG**, is required to have the Project auditor selected within 3 months of effectiveness and conduct an annual audit. The Project will then submit audited financial statements to the International Development Association (IDA) in a form and content satisfactory to the World Bank.

14. **FM-related covenants include:** (i) maintaining satisfactory FM systems throughout the life of the Project; (ii) timely submission of IFRs within 60 days of the end of each fiscal quarter; and (iii) submission of annual audited financial statements and audit reports, including a management letter, within six months of the end of each fiscal year.

15. **Based on the assessment conducted, it is the conclusion of the assessment that the FM arrangements meet the World Bank's IPF policy and directives and the World Bank's Directive as it relates to FM**. It provides, with reasonable assurance, accurate and timely information on the status of the Project. Action plans were agreed to address some of the risks and weaknesses observed.

Country Public Financial Management (PFM)

16. **The GoE has been implementing a comprehensive PFM** reform with support from its DPs, including the World Bank, through the Expenditure Management and Control subprogram of the Government's Civil Service Reform Program. This was supported by the closed, IDA-financed Public Sector Capacity Building Support Program and the Ethiopia Enhancing Shared Prosperity Program (P151432). The current PFM reforms include the IDA-financed Promoting Basic Services (PBS) Program, Enhancing Shared Prosperity through Equitable Services Program, the PFM Project, and other reforms financed by other donors as well as by the Government itself. These programs have focused on strengthening the basics of PFM systems, and budget preparation, revenue administration, budget execution, internal controls, cash management, accounting, reporting, and auditing. A Performance Expenditure and Financial Accountability (PEFA) assessment for 2017/18 is being conducted and the report is being finalized.

Financial Management Implementing Entities

17. **Federal level.** At the federal level, the MoF will be responsible for the overall FM of the Project. This includes, but is not limited to, the management of the designated accounts and the pooled Birr account (CWA), transferring of funds to BoFs and other federal-level implementing entities, responsibility for producing regular financial reports, and facilitation of an annual audit of the Project account. It will ensure that acceptable FM systems are in place and are well documented in FM manuals. It will also be responsible for oversight and coordination of the Project, and for the funds transferred to it. Federal-level implementing entities such as the WDC, WRDF, MoE, and MoH will be responsible for the funds transferred to them from the MoF and will report on fund utilization to the MoF. The WDC set up was not complete at the time of the assessment. Therefore, the FM responsibility of the WASH sector will remain with the MoWIE and will be transferred to the WDC, once the FM capacity assessment is completed before Project effectiveness.

18. **Regional level.** At the regional level, BoFs will be responsible for the management of the funds transferred to the regions. They are responsible for ensuring that acceptable accounting systems covering regional, zonal, and woreda levels are maintained. They will review and supervise the effective use of accounting procedures by woredas, zones (for some regions), and other implementing entities at the regional levels, and provide technical support and assistance to the region. They will transfer funds to implementing entities at the woreda, zone, and other regional levels and follow up on advances and the accountability of these advances. They will collect and aggregate all financial data and information from implementing entities under their purview for the Project and report to the MoF. Regional-level implementing entities such as the Bureau of Water (BoW), Bureau of Education (BoE), Bureau of Health, and others will be responsible for the funds transferred to them from the BoF and will report on fund utilization to the BoF.

19. **Zone and woreda levels.** At the woreda (including towns) and zone (for some regions) levels, the WoFs and ZoFs are responsible, respectively, for the funds transferred to them and for the FM aspects of the Project. As the WoF is the accounting center in the GoE's PFM, it manages resources of sector offices under a pool arrangement.

Regarding the Project, the ZoFs manage resources of sector offices under pool arrangements (such as woredas) but they also have the responsibility to monitor the woredas under them. The records of funds received and utilized will be maintained in accordance with sound accounting practices that can generate accurate and timely information for verification. Among the various FM roles and responsibilities, ZoFs and WoFs will at a minimum: (i) provide support in budget preparation and follow up on budget execution as per approved plans and activities; (ii) undertake timely payments for eligible expenditures for smooth implementation of approved plans and activities; (iii) exercise necessary fiduciary controls; and (iv) prepare and submit timely reports on fund utilization to the regions (BoFs). In addition to the above, ZoFs also have responsibility to support and supervise the woredas under them. Lessons from the WASHP indicate that the woredas in the Somali region were not implementing the Project activities directly; instead the implementation was being carried out at the regional levels. The revised POM will clearly outline any implementation arrangements in regions.

Project Financial Management Arrangements

20. **Budget preparation in the GoE:** Ethiopia's budget system reflects an existing fiscal decentralization structure. The budget is processed at federal, regional, zonal (in some regions), and woreda and municipality levels. The budget procedures are documented in the *Federal GoE Budget Manual*.[36]

21. **Budget preparation for the Project:** The Project is expected to largely follow the existing implementation arrangements and the existing Project budgeting system, which is aligned with the OWNP and follows a decentralized and integrated approach. The planning is consultative, holistic, comprehensive, and involves all stakeholders. Plans will be initiated by community or town residents and will be consolidated as they go to the next level—the woreda, regional, and federal levels. The budgeting process at the woreda or town levels will be prepared by the WWT in collaboration with the WOF based on the annual WASH plan of the WWT and woreda allocation and will be submitted for approval to the Woreda Council. At the regional level, the RWCO will prepare annual regional WASH plans based on woreda and town WASH plans, and regional sector bureau plans, and submit an annual WASH budget to the BoF that will be approved by the Regional Steering Committee. At the federal level, the NWCO is responsible for preparation of the consolidated WASH plan and budget and the NWSC will approve the national WASH plan and budget that includes regional WASH plans (incorporating regional sector bureaus as well as woredas and towns) and federal sector plans. The Project will also notify the DPs, including the World Bank, of the annual plan and budget, and an agreement will be reached on the annual work plan and budget with donors, including the World Bank. The budget for the Project will then be proclaimed at the federal level in the name of—WDC, MoE, and MoH. Lessons learned from WASHP include aligning proclaimed and working budgets in timing and amount, which will be addressed by including early budget preparation and midyear corrections that will be included in the FM manual. Once the budget is approved and proclaimed, the MoF will notify regions and all implementing entities of the approved budget on time. In the previous phase, regional budgets approved at the national level were not disaggregated by regional sector bureaus, woredas, and towns. In addition, budget notifications to regions were often delayed and no official notifications of approved budgets were made to woredas in certain regions. There were also observations that budgets, as well as actual performance, were not disclosed in public places. In view of the extended scope and design of the proposed Project, as well as the lessons learned in the previous phase, the FM manual will be revised taking into account detailed budgeting procedures and budget transparency tools.

22. **Budget monitoring.** Budget control under the current WASHP will be further strengthened. Implementing entities at the federal, regional, zone, and woreda levels will be formally notified of the approved budget on or before the beginning of a budget year. They will then maintain up-to-date budget tracking records to ensure budget availability before processing payments. The accounting system in use should enable budget controls, monitoring,

[36] *Revised Federal Budget Manual.*

and periodic reporting. Actual expenditures should be compared to the budget on a regular basis, explanations should be sought for significant variations from the budget, and remedial actions should be taken as appropriate. This means financial reports, including IFRs at different levels within the WASH structure, should include a variance analysis, notes on FM performance, and explanations of material variances. A lesson learned from past performance is that budget utilizations were low and budget monitoring needs to be improved. As such, setting a realistic budget is important and the Project is expected to clarify detailed procedures that ensure better monitoring. The FM manual will be reviewed and revised to depict in detail the procedures for monitoring budgets and follow-on training will be conducted.

23. The budgeting arrangements for the CERC will be clarified when the design is completed, and the Operating Manual is updated.

24. **Accounting policies and procedures—government accounting system:** The GoE follows a double-entry bookkeeping system and modified cash basis of accounting, as documented in the government's accounting manual.[37] Government accounting policies and procedures will be largely used for the accounting of the Project. The MoF and BoF are responsible for the FM aspect at the federal and regional levels, respectively. At the woreda and zone levels a pool system is in place, where the WOFs and ZOFs, respectively, are responsible for all FM aspects of WASH sector offices.

25. **Financial management manual:** The Project will follow the FM manual developed under the WASHP, which largely follows the government's accounting manual, depicting all accounting policies, procedures, internal control issues, financial reporting, fund flow arrangements, budgeting, and external audits. Hence, in view of the new developments and activities of the new phase and the lessons learnt under the WASHP, the FM manual will be revised within two months after the Project's effectiveness. The Borrower must obtain a "no objection" to the revised FM manual from the World Bank. Training on the FM manual will be carried out within two months of its approval by the World Bank.

26. **Accounting system:** For normal treasury funds, the GoE uses the Integrated Budget and Expenditure (IBEX) or Integrated Financial Management Information System (IFMIS). The IBEX accounting system is now operational in almost all public bodies while the IFMIS is under testing at federal ministries. Experience from the WASHP indicates that for recording transactions as well as for reporting, a mix of systems is in use. Some implementing entities use IBEX, others use accounting software such as Peachtree or MS Excel, while most woredas use manual systems. Therefore, it was agreed with the MoF that the IBEX will be rolled out on a standalone basis and accordingly, the MoF designed the IBEX for use in the Project. However, some Project-implementing entities applied it for transactions, including via online connectivity with the BoFs, while others did not. The IBEX has limitations: it cannot record and produce reports organized by sector, category and activity of expenditure, and component. Thus, system capabilities and limitations should be carefully understood, and a way forward should be proposed, agreed on, and detailed in the revised FM manual.

27. **Chart of accounts:** The Project's chart of accounts will be developed using the Government's chart of accounts to capture properly the components, subcomponents, categories, and activities of Project expenditures. This chart of accounts shall form part of the revised FM manual.

28. **Accounting centers:** Accounting centers for Project funds include: (i) the MoF, WDC, WRDF, MoE, and MoH; (ii) the BoFs and sectorial bureaus such as the Bureau of Health and BoW; and (iii) the WoFs and ZoFs and the Project towns and town utilities. All these institutions will maintain accounting books and records and prepare financial reports in line with the system outlined in the revised FM manual. Each implementing agency is responsible for

[37] *GoE Accounting System, Volume I.*

maintaining the Project's records and documents of the Project transactions, which will be made available for the World Bank's regular supervision missions and to the external auditors. Detailed procedures for maintaining and retaining documents will be discussed in the revised FM manual. Most of the accounting centers are still implementing the previous phase of the WASHP (P133591), which is scheduled to close on June 30, 2019. It needs to be noted that these accounting centers are required to maintain separate accounting documents and records for the WASHP (P133591) and this new proposed program (new phase).

29. **Staffing:** The Project has recruited and maintained several accountants at the federal, regional, and woreda levels. Without adequate staffing, there is a risk of delay in Project implementation and reporting. Therefore, the Project accountants currently working on the WASHP (P133591) will transit to this proposed operation. The MoF in consultation with regions will ensure that sufficient personnel are in place to handle FM requirements at each level. Staff turnover, particularly at the woreda level, continues to pose a challenge. Further, the introduction of new activities (Component 4) likely to be implemented at the national level may necessitate additional staffing at the national level. The MoF will assess and determine FM staffing needs within two months of the Project's effectiveness.

30. **Capacity building, training, and support:** Focused and continued FM training is essential for success of the Project, given that it operates in a decentralized environment. Responsibility for FM training lies with the Government (MoF and BoFs) but the World Bank could provide support with technical issues. Adequate funding will be planned every year for systematic training and capacity-development activities that will be detailed in the Project documents and PPs. The MoF should support the BoFs and other federal-level entities, and likewise the BoFs will provide support to the woredas, zones, and other regional entities. ZOFs are also expected to support the woredas under their responsibility.

31. The detail accounting arrangements for the CREC will be clarified when the design is completed, and the Operating Manual is updated.

Internal Control and Internal Auditing

32. **Internal control:** Internal control comprises the whole system of control, financial or otherwise, established by management to ensure that funds are used for purposes intended in an efficient and effective manner. As discussed above, the FM manual will be revised in many aspects including internal control. It is expected to incorporate important control procedures relating to Project resources, such as cash and property, which should be applied by all entities. The lesson from the WASHP (P133591) on internal control is that the risk is substantial. There are weaknesses in the area of budget discipline, including the lending of Project resources for non-project activities, failure to adequately support transactions/payments, property management issues, cutoff issues, the presence of long-outstanding receivables and payables and inadequate follow-up, the absence of a ledger for reported balances, the absence of a bank guarantee for advances, coding errors, inadequate supporting documents, ineligible expenditures, cash management issues (such as failures to do monthly bank reconciliations and cash counts, the holding of significant resources in hand, etc.). These were consistent with the issues reported in audit reports. While there are basic internal controls, it is apparent that there are implementation gaps where adherence to the controls are weak and therefore require close monitoring. The responsibility for monitoring with adequate internal controls in place and the way controls are implemented lies with the MoF and BoFs. The FM assessment recommends that the MoF continually review the systems in place to identify gaps and prepare an action plan for addressing them. The detail internal controls arrangements for the CERC will be clarified when the design is completed, and the Operating Manual is updated.

33. **Parallel implementation of previous and current phases of the OWNP-CWA:** The closing and application deadline dates of the WASHP (P133591) are June 30, 2019, and October 31, 2019, respectively. The new phase could become effective in September 2019, and it is likely that the two projects will operate in parallel for a certain period.

This brings about the risk of "double dipping." Mitigation measures will be implemented to address this risk. These include the maintenance of separate records, including separate bank accounts, documents, and records; separate work plans, and budgets approved by the World Bank; use of rubber stamps to differentiate documents of two phases; etc. Another issue that reduces the risk of parallel implementation is that even when the Project becomes effective, the initial disbursement will be made after closure of the current phase.

34. **Internal audit:** It is envisaged and agreed that the Project will be subject to an internal audit review at all levels. This is to help increase management awareness of internal controls and compliance issues in a systematic and real-time manner so that remedial actions are promptly taken. Past lessons indicate that the internal audit function in all entities was found to be especially weak or nonexistent. These weaknesses are systemic and are well recognized by the MoF; many reform activities are planned and are being undertaken by the MoF to improve the internal audit weaknesses. In the meantime, through this Project, certain mitigation measures will need to be foreseen. As such, this Project, under the leadership of the MoF will:

1. Hire or assign internal auditors at the MoF and/or BoFs to conduct internal audits. Within three months of effectiveness, the DPs will be notified of the auditors recruited.
2. The hired or assigned internal auditors at the MoF and BoFs will conduct internal audits at the federal and regional levels at least twice per year.
3. Conduct capacity-building training among the internal auditors of the implementing entities along with the FM manual training.
4. DPs will continue to track the performance of internal auditors and follow-up on whether the Project was subject to internal audit reviews.

Fund Flows and Disbursement Arrangements

35. **Fund flows from donors to the MoF:** The MoF will open separate U.S.-dollar-designated bank accounts at the National Bank of Ethiopia for each DP fund including the World Bank's funds (IDA and trust funds [TFs]) on terms and conditions acceptable to the IDA. DP funds including the World Bank's funds will be deposited into their respective separate designated bank accounts. Six months of resources will be released as an initial advance to the designated account as will be stated in the disbursement letter. The authorized ceiling of the designated account will thus be two-quarters the forecasted expenditure based on the approved annual work plan and budget. Then resources will be transferred to the pooled Birr account (CWA) to be managed by the MoF. The MoF will track the allocation among the various partners (IDA, TFs, other DPs, and government contributions) using appropriate accounts.

36. **Fund flows from the MoF to the implementing entities**: Similarly, every Project-implementing entity other than the MoF is required to open a separate local currency bank account for the Project funds. From the pooled local currency account, the CWA, the MoF will transfer funds to these local currency accounts opened by the regions (BoFs) and other federal-level implementing entities (WDC, MoE, MoH, WRDF, etc.). In the same manner, regions (BoFs) will transfer resources to woredas/WOFs and zones/ZOFs and other implementing entities at the regional levels (BoW, BoE, Bureau of Health, etc.). Lessons learnt from the previous phase of the OWNP indicate that there are weaknesses in the size of advances, and the track record of regions in settling the advance balances transferred to them was a persistent concern. Internal control issues on cash management (as discussed in the internal control section) existed. Regions complained that delays in receiving resources affected Project implementation. The revised FM manual will clearly outline fund release parameters. Regarding the WDC, it is essential that the full entity is completely set up including the entity FM arrangements and procedures before transferring the project FM responsibility and resources to the WDC from the MoWIE. Once the WDC set up is completed and before transferring Project resources, a FM assessment will be conducted, banking arrangements will be clarified, and capable and

adequate FM staff will be recruited or assigned to handle Project FM responsibilities. Finally, a FM assessment will be conducted to identify gaps/risks and mitigation measures.

37. **World Bank accounts under the previous and the new phase of the CWA:** The implementing entities of the WASHP must never use the existing separate bank accounts for funds received under the new phase. Each implementing entity benefiting from the new phase will open a separate bank account for the Project to ensure that Project expenditures are reported in their appropriate location. The fund flows to each implementing entity will be dispersed according to the entity's respective approved annual work plan and budget. Any implementing entity that does not report in a timely manner on how the advance is expended will not receive additional funds until the initial advance is reasonably settled. Lessons from the WASHP (P133591) indicate use of Project resources for other purposes on a lending basis. It is important to ensure that the separate bank accounts are used only for the Project; Project monies should not be used for other purposes even on a lending basis. The FM manual will also detail the fund flow arrangements for each implementing entity, including the accounting and internal controls required around the Project's earmarked funds.

38. **Disbursements and documentation**: Report-based disbursements, i.e., using quarterly unaudited IFRs will continue to be followed for this new program for advance to the designated account and to document past advances. Disbursements will be made quarterly and will cover the cash requirements for the next six months, based on the cash forecasts included in the IFRs. All the disbursement methods are available for the Project: Advance to Designated Account, Direct Payments, Special Commitments, and Reimbursements. Provision would also be made in the disbursement letter for these and other disbursement requirements. The DPs' financing shares for the annual work plan and budget will be agreed on. The World Bank's task team leader (TTL) will advise the World Bank's loan department of the share of financing to be disbursed by the World Bank as per the Project cash forecast and documentation or allocation of expenditures. It is important to ensure that Project documentation be requested only for actual expenditures incurred by Project-implementing entities. The MoF should thus instruct implementing entities to record advances as receivables and to collect periodic accountability reports to settle these advances as per the Project requirement. The revised FM manual will also clearly outline procedures regarding advances.

39. **Withdrawal categories**: The Project disbursement categories will be stated in the financing agreement. The categories will be aligned to the Project components or parts, but an additional category will be created for the CERC subcomponent. Detailed arrangements including FM arrangements pertaining to this CERC subcomponent will be designed at a later stage as agreed with the World Bank. Until such time disbursement will not be made for this component and hence agreement on the design document will be a disbursement condition.

40. **Counterpart fund contribution:** The Project is also financed by counterpart funding of US$50 million. Project-implementing entities should make contributions as required and the MoF, BoFs, and ZoFs must ensure that contributions are captured and reported. Lessons from the WASHP indicate that there were instances where counterpart fund contributions were recorded as a liability, thereby reducing the counterpart fund contributions reported. Expenditures should then be apportioned between the Government and donors. The revised FM manual will clearly indicate the recording, accounting, and reporting procedures for counterpart fund contributions to avoid such incidents.

Table A1.2.: Eligible Expenditures

Category	Amount of the Financing Allocated (expressed in SDR)	Percentage of Expenditures to be Financed (inclusive of Taxes)
(1) Goods, works, non-consulting services, and consulting services, Operating Costs and Training under Part 1 of the Project	66,600,000	100 %

Category	Amount of the Financing Allocated (expressed in SDR)	Percentage of Expenditures to be Financed (inclusive of Taxes)
(2) Goods, works, non-consulting services, and consulting services, Operating Costs and Training under Part 2 of the Project	65,000,000	100 %
(3) Goods, works, non-consulting services, and consulting services, Operating Costs and Training under Part 3 of the Project	27,770,000	100 %
(4) Goods, works, non-consulting services, and consulting services, Operating Costs and Training under Part 4.1 and 4.2 of the Project	40,180,000	100 %
(5) Emergency Expenditures under Part 4.3 of the Project (i.e., CER Part)	0	100 %
(6) Goods, works, non-consulting services, and consulting services, Operating Costs and Training under Part 5 of the Project	16,950,000	100%
TOTAL AMOUNT	216,500,000	

Financial Reporting

41. **Interim financial reporting:** The MoF prepares the implementing entities' Project financial statements to be submitted to users whether they be internal or external, the Government, or donors. For this Project, after consolidating the regional reports, the MoF will submit IFRs to the World Bank within 60 days of the end of the quarter. The existing formats of the IFR of the previous phase of the WASHP (P133591) has been reviewed and revised for this phase by the MoF and has been agreed with the IDA during Project negotiation. In addition, the formats will be included in the FM manual of the Project during the revision process. The Report should be derived from the system and the IFRs will include: (i) a statement of sources and uses of funds, and opening and closing balances for the quarter and cumulative; (ii) statement of uses of fund that shows actual expenditures and are appropriately classified by main Project activities (categories, components, and subcomponents), which will also include an actual versus budget comparisons for the quarter, year to date, and cumulative; (iii) a statement of cash forecast/requirements—for six months; (iv) notes and explanations; (v) a statement on the movement of the Project's designated account including opening and closing balances and the movements (inflows and outflows); and (vi) other supporting schedules and documents. The detailed reporting arrangements for the CREC will be clarified when the design is completed, and the Operating Manual is updated.

42. **Annual reporting:** In compliance with the Government's financial rules and regulations as well as the IDA requirements, the MoF will produce annual financial statements. The annual financial statements will adopt the same format as the quarterly reports and may also include other issues. The annual financial statements will be submitted to auditors for audit. The audit ToRs include the content of the audited Project financial statements. These financial statements will be submitted for audit within three months after the end of each year.

43. **Lessons from the WASHP:** WASHP financial reports are being submitted on time but require revisions. Regional and lower-level reports are not up to standards especially in their analysis and explanation of financial performance and budget utilization. This lowers the quality of the IFRs that the MoF sends to donors. In addition, there are woredas that fail to send quarterly reports. Thus, the FM manual will be revised to further clarify reporting requirements. Training will be conducted on report preparation. In addition, the MoF and BoFs should undertake robust reviews and check on the reports submitted to them. BoFs should support the woredas that delay or fail to submit reports. The World Bank will also strengthen the IFR review procedures.

External Auditing

44. **Audit reports:** Annual audited financial statements and audit reports (including the management letter) of the Project will be submitted to the World Bank within six months from the end of the fiscal year, using auditors[38] acceptable to the World Bank. Annual financial statements prepared in accordance with acceptable standards will be prepared within three months of the end of the fiscal year and provided to the auditors to enable them to carry out and complete their audit on time. The OFAG or a qualified auditor nominated by the OFAG and acceptable to the IDA will carry out the audit. The auditor will express an opinion on the Project's financial statements. The audit will be carried out in accordance with the International Standards of Auditing (ISA) issued by the International Federation of Accountants (IFAC). The auditor will also provide a management letter, which will among other things outline deficiencies or weakness in systems and controls, recommendations for their improvement, and compliance with key financial covenants. The ToRs for the audit have been agreed during negotiations and will be included in the revised FM manual. The detailed audit arrangements for the CERC will be clarified when the design is completed, and the Operating Manual is updated.

45. **Lessons from the WASHP:** Several internal control and compliance issues are observed in the management letters. The follow-up capability of all parties, including the MoF, to resolve findings has improved. However, certain documented responses that should have been presented to the auditor during their visits or at the draft report stage are being submitted in response to the audit action plan. Documentation was also being submitted for issues that had been accepted for future action in the management response of the audit report. The MoF and BoFs should exert extra effort and attention to address this issue and such incidents should be avoided in future. All pertinent documents should be presented at the time of audit. It is also recommended that when accountants are not available at the time of audit, woredas should be advised to ensure proper handover and to make other staff available to provide the documentation and explanation required.

46. **Audit action plan and status:** The MoF and all Project-implementing entities will take the necessary follow-up actions on the audit reports. The MoF will submit the Government's response to the findings in the audit report to the World Bank. An action plan for any follow-up actions will be submitted by the MoF within two months of submission of the audit report to the World Bank. Each entity will act and report feedback within one month of the receipt of the action plan (three months after the receipt of the audit report). The MoF will submit the consolidated status report on the action plan three months after the receipt of the audit report. The status report must address all the findings of the audit in detail. DPs will also follow up on action plans and the status thereof.

47. **Disclosure of audit reports:** In accordance with the World Bank's policies, the World Bank requires that the Borrower disclose the audited financial statements in a manner acceptable to the World Bank. Following the World Bank's formal receipt of these statements from the borrower, the World Bank discloses them to the public in accordance with the World Bank's policy on Access to Information.

FM-Related Costs

48. **The Project work plans, and budget** include the costs of: (i) Project accountants; (ii) audit costs; (iii) related logistics and supervision costs (e.g., transportation, accommodation while travelling); and (iv) providing FM-related training, etc.

49. **Financial covenants and conditions** include: (i) maintenance of a satisfactory FM system for the Project; (ii) submission of the IFRs for each fiscal quarter within 60 days of the end of the quarter; (iii) submission of annual

[38] Audits will be carried out by the OFAG or a qualified auditor to be selected in collaboration with the OFAG from auditors acceptable to audit World Bank-financed operations, following agreed procurement procedures.

audited financial statements and an audit report within six months of the end of each fiscal year; and (iv) a supervision plan.

50. **The Project will be subject to full on-site supervision,** at least twice per year on the basis of the current FM risk assessment after mitigation measures. After each supervision, the risk will be measured and recalibrated accordingly. Supervision activities will include: compliance with the agreed-upon FM arrangements, review of quarterly IFRs, review of annual audited financial statements as well as timely follow-up of issues, transaction reviews, participation in Project supervision missions as appropriate, and updating the FM rating in the Implementation Status Report (ISR).

Governance and Anti-Corruption

51. **Government ethics and anti-corruption mechanisms:** Measures to tackle fraud and accountability aspects within the Project, should they arise, will follow the government systems set up to fight them. The GoE established the Federal Ethics and Anti-Corruption Commission of Ethiopia (FEACC) in May 2001 (and defined powers in the revised Proclamation 433 of 2005). Ethiopia is a federal state. Regions thus have a constitutional right to establish their own anti-corruption institutions that are independent from the federal government. Accordingly, the regional states set up their own ethics and anti-corruption commissions in accordance with their respective constitutional jurisdictions to tackle corruption and impropriety before it becomes rampant and widespread in their respective regions.

52. **Code of Ethics for Federal Government Employees:** The Ministry of Public Service and Human Resource Development developed a Code of Ethics for Federal Government Employees in December 2017. The code applies to all employees working in the federal government's public bodies. The code has sections explaining the 12 values/principles that employees should follow. These are integrity, loyalty, transparency, confidentiality, honesty, accountability, serving the public interest, exercising legitimate authority, respecting the law, impartiality, responsiveness, and exercising leadership. It also has sections for guidance on relations with other parties, an ethical guide on respecting the rights of women, guidance on applying the code, and disciplinary measures for failing to apply the code.

53. **Ethics and anti-corruption practices of implementing entities:** Most public bodies at the federal and regional levels including some woredas have an ethics and anti-corruption unit with an officer who has the responsibility of acting on suspected fraud, waste, or misuse of Project resources or property. The units work in collaboration with appropriate offices and directorates (including internal auditors) on ways of improving the governance and service delivery of their respective organizations. Moreover, the experts advise the management to promote ethics and strengthen a sense of good conduct at the workplace. The main objective of the units includes: ensuring the implementation of the Civil Service Reform Program by educating employees to develop ethical and anti-corruption skills; preparing and implementing appropriate ethical guidelines; establishing a surveillance system to monitor the work process vulnerable to corruption and impropriety; organizing various discussion sessions or forums to encourage employees; and preparing various posters and leaflets promoting professional ethics and anti-corruption messages.

54. **Governance and anti-corruption (GAC) risks and mitigation measures**: The following identified key GAC risks along with their mitigating measures are placed in the design of the Project in addition to the presence of the above structures:

a. **For the risk of resource allocation (budgeting and budget monitoring), mitigation measures include:** the country's strength and discipline in executing budget and compliance with the existing government regulations; the Project's clarification and improved budget monitoring as well as budget transparency tools in the revised manual; high stakeholder involvement in the preparation of the Project budget;

training to be conducted including budget monitoring and variance analysis; and the IFR's efforts to follow up with donors.

b. **For risk of fund flows:** Fund flows are designed by attaching the coordination units to the sector ministry and bureaus, which have: (i) strong internal control mechanisms; (ii) stringent checklists that will be developed as part of the FM manual to include issues pertaining to reports from woredas to regions; (iii) training that will be provided on report preparation; (iv) all transactions between implementing entities made through acceptable banks (all government-owned banks in this case); and (v) capacities at all levels that will be increased so that quality reports are prepared and submitted on time.

c. **For internal control risks:** Capacities at all levels will be assessed and increased as appropriate so that: (i) staff carry out and supervise key control functions at all levels of the Project; (ii) the internal audit functions are strengthened by Projects that deal with PFM reforms; (iii) an internal auditor will be recruited or appointed at the MoF and/or BoF level, and the internal audit directorates, departments, or internal auditors review the Project as per their annual program; (iv) the FM manual will include detailed internal control procedures with regards to soft expenditures starting from the initiation of transactions to the approval of the expenditures and also on safeguard of assets including annual physical inspection; (v) the scope of the external audit will include an assessment of the internal control area; and (vi) the external audit will be conducted annually with an interim audit arrangement performed in the middle of the fiscal year.

d. **For financial reporting risks:** (i) the external audit work is sufficient to verify consistency with underlying transactions and records; (ii) the auditors verify that expenditures reported on IFR basis are eligible or not; (iii) the new Project has the format of quarterly reports, which was agreed upon during negotiations; and (iv) the FM manual for the Project will continue to define requirements relating to quality and the timetable of reporting for each implementing entity and the effort to computerize accounting by rollout of IBEX at the lower levels.

55. **The FM action plan** that encompass mitigation measures for risks and weaknesses are presented in Table A1.3.

Table A1.3: Risk Mitigation Measures for Financial Management

	Action	Date Due By	Responsible
1	*FM manual* Revise the current FM manual to address current challenges and incorporate new developments and disseminate it to all levels.	Finalize revision within two months of effectiveness and disseminate thereafter	MoF
2	*Budget* Attention and efforts to improve budget discipline and budget monitoring will be enhanced by: a) Aligning the proclaimed budget with the working budget in timing, amount, and sectors involved; b) Disaggregating the working budget by implementing entities including woredas, zones, and regional entities and disseminate officially to all; c) Maintaining budget tracking record on the accounting system in use and provide variance reports and the related explanation for major variances on periodic reports.	a) Ongoing annually b) Ongoing annually c) Ongoing annually	a) MoF, WDC, MoH, MoE b) MoF, WDC, MoH, MoE, BoFs, and water bureaus c) All internal auditors

	Action	Date Due By	Responsible
3	*Accounting* Consider applying a uniform accounting system for all implementing entities. Entities that have applied manual accounting including woredas will be encouraged and supported to adopt computerized accounting (could be on IBEX by removing design limitations observed during the previous phase of the OWNP-CWA). Ensure that there are mitigation measures to avoid double dipping of this program with the WASHP	During implementation	MoF, BoFs, ZoFs
4	*Staffing and capacity development* Determine the Project staffing needs of the MoF, BoFs, and ZOFs as well as other implementing entities and recruit/assign staff as per proposal.	Within two months of effectiveness	MoF and BoFs
5	*Staff capacity development and support* a) Provide initial training on the Project operation and the revised FM manual to Project FM staff and where possible include finance heads and internal auditors of implementing entities. Ongoing FM training will also be provided at least annually. b) The MoF and BoFs should conduct regular field visits to support as well as monitor the performances of the BOFEDs (including federal entities) and ZOFs (including regional entities), respectively.	a) Initial training three months after effectiveness and refresher training annually at convenient time b) Ongoing	a) MoF and BoFs b) MoF and /or BoFs
6	*Internal control* The MoF reviews the systems in place, identifies gaps, and prepares an action plan for how the gaps in the system will be covered going forward.	Within three months of effectiveness	MoF
7	*Internal audit* a) Increase engagement of internal audits at all levels to identify control weaknesses early; b) Hire or assign internal auditors at the MoF and/or BoFs to close gaps currently being noted in internal audit activities and conduct internal audits.	a) Ongoing b) Within three months of effectiveness	a) Implementing entities b) MoF and BoFs
8	*IFR/Report issues* a) Project-implementing entities will strictly apply the reporting requirements outlined in the Project FM manual and should ensure that reports agree with the related records; b) IFRs.	a) Ongoing b) 60 days after the end of the quarter	a) Implementing entities b) MoF
9	Audit issues a) Recruitment of external auditors at early stages of the Project; b) Project annual financial statements will be prepared on time and the timely closure of accounts will be followed up on; c) Submission of annual audited financial statements and audit report including the management letter; d) The MoF will submit the government's response to the	a) Within three months of effectiveness b) Within three months after end of budget year c) Within six months of the end of each fiscal year d) Within two months of submission of the audit	a) MoF for actions "a" to "e." b) MoF for action "f.1" and MoF/World Bank for action "f.2."

	Action	Date Due By	Responsible
	findings in the annual audit report to the World Bank and an action plan for any follow-up actions; e) Prepare status report of action taken on audit findings; f) Disclosure in accordance with World Bank policy: i. The World Bank requires that the borrower disclose the audited financial statements in a manner acceptable to the World Bank; ii. Following the World Bank's formal receipt of these statements from the borrower, the World Bank makes them available to the public in accordance with the World Bank Policy on Access to Information.	report to the World Bank e) Within three months of submission of the audit report to the World Bank (within a month of preparing action plan) f) Annually	
10	IFR formats and audit ToRs will be agreed.	Negotiation	MoF/World Bank

Procurement

Applicable Procurement Procedures

56. **Scope of procurement:** Procurable items under the Project include various works, goods and non-consulting services, and consulting services. The items to be procured under the Project include work contracts such as for civil works, supply and installation of pipes and fittings and electromechanical equipment for different schemes, construction of different magnitudes of institutional sanitation facilities, public and communal toilets, drilling of different-sized boreholes, etc. The procurement of goods includes vehicles, information technology (IT) equipment, software, office furniture, and supply and installation of SCADA[39] systems and water quality and quantity monitoring equipment including combined hydrometeorological kits. Consulting services include feasibility study and detailed engineering designs, various assessments, construction supervision, TA, town wastewater treatment masterplan studies, financial and procurement audits, etc. The procurable items under the Project shall be clarified when the planned activities have been further detailed.

57. **Applicable procurement regulations:** Procurement under the Project and for all CWA activities will be carried out in accordance with the World Bank's Procurement Regulations for IPF Borrowers—*Procurement in Investment Project Financing, Goods, Works, Non-Consulting, and Consulting Services*, dated July 1, 2016, and revised November 2017 and August 2018; Guidelines on Preventing and Combating Fraud and Corruption in Projects Financed by the International Bank Reconstruction and Development (IBRD) Loans and IDA Credits and Grants revised as of July 1, 2016; and the provisions stipulated in the General Conditions of the Legal Agreement.

58. **Systematic Tracking of Exchanges in Procurement (STEP):** The World Bank's system STEP will be used to prepare, clear, and update PPs and conduct all procurement transactions for the CWA.

59. **National Procurement Procedures (NPPs):** National procedures may be used while approaching the national market under the National Open Competitive Procurement (NOCP). The NOCP will observe the requirements stipulated in the Procurement Regulations for IPF Borrowers (July 1, 2016; and revised November 2017 and August 2018).

60. **NPPs may be used while approaching the national market.** The requirements for the NOCP include:

(i) Open advertising of the procurement opportunity at the national level;
(ii) Procurement open to eligible firms from any country;

[39] Supervisory control and data acquisition.

(iii) Requests for bids or proposals shall require that bidders/proposers submitting bids/proposals present a signed acceptance at the time of bidding, to be incorporated in any resulting contracts, confirming application of, and compliance with, the World Bank's Anti-Corruption Guidelines, including without limitation the World Bank's right to sanction and the World Bank's inspection and audit rights;
(iv) Procurement documents include provisions, as agreed with the World Bank, intended to adequately mitigate against environmental, social (including sexual exploitation and abuse and GBV), health, and safety ("ESHS") risks and impacts;
(v) Contracts with an appropriate allocation of responsibilities, risks, and liabilities;
(vi) Publication of contract award information;
(vii) Rights for the World Bank to review procurement documentation and activities;
(viii) An effective complaints mechanism; and
(ix) Maintenance of records for the procurement process.

61. Other procurement arrangements (other than NOCP), which may be applied by the Borrower (such as limited/restricted competitive bidding, request for quotations (RFQs)/shopping, and direct selection), shall be consistent with the World Bank's core procurement principles and ensure that the World Bank's Anti-Corruption Guidelines and Sanctions Framework and contractual remedies set out in its Legal Agreement apply. In all cases, the NPP to be used shall give due attention to quality aspects.

62. **Procurement arrangements:** Procurement under the Project will be implemented by the WDC PMU, the MoH, the MoE, regional water resource development bureaus (RWRDBs), regional health bureaus (RHBs), regional education bureaus (REBs), and the WRDF based on their respective components and mandates. The WDC PMU will be responsible for (i) monitoring, supervising, coordinating, and oversight of all Project procurement activities; (ii) coordinating procurement reviews; and (iii) consolidating the Project PPs received from each implementing agency (regional bureaus and federal implementing agencies). The WDC PMU will be responsible for the procurement of major common-use items and strategic goods and equipment (vehicles, bulk office equipment including computers and software, etc.). The WDC PMU is also responsible for the selection and employment of consultancy services managed by the Project's implementing agencies, which have the nature of covering two or more regions or fall under Component 4 (climate-resilient WASH), and for advertising international competitive bidding contracts on the United Nations Development Business (UNDB) online on behalf of all implementing agencies. The WDC will also be responsible for reviewing and channeling to the World Bank all procurement documents requiring prior reviews. The regional bureaus will be responsible for the procurement and implementation of the works and related services contracts for civil work; supply and installation of pipes and fittings and electromechanical equipment; selection of consultants to carry out specific studies, construction supervisors, etc.; and procurement of office equipment and furniture. The WDC PMU will also carry out procurement functions for goods, consultancies, and minor works if needed for activities under Subcomponent 4.1 that will be managed by the River Basin Developed Authority and the National Meteorological Agency. The RWRDBs are responsible for coordination and support of the respective regional Project implementing bureaus. The WDC will provide the necessary support and oversight to the regional bureaus to ensure that the procurement and contract management is carried out as per the governing procurement rules and timely completion of the contract within the contractual period.

63. **Other procurement methods** (other than NOCP), which may be applied by the GoE (such as limited or restricted competitive bidding, RFQs/shopping, and direct selection) shall be consistent with the World Bank's core procurement principles and ensure that the World Bank's Anti-Corruption Guidelines and Sanctions Framework and contractual remedies set out in its Legal Agreement apply. In all cases, the NPP to be used shall give due attention to quality aspects.

64. **Procurement arrangements:** Procurement for the CWA will be implemented by the WDC, MoH, MoE, RWRDBs, RHBs, REBs, and WRDF based on their respective components and mandates. The newly established WDC, which is accountable to the MoWIE, bears the overall procurement responsibility for the implementation of CWA activities. The Federal Program Management Unit, which is housed in the WDC, is the frontline unit representing the WDC that is responsible for the day-to-day implementation of the project. The WDC PMU in close collaboration with the Procurement and Contract Administration Directorate (PCAD) housed in the WDC will be responsible for: (i) monitoring, supervising, coordinating, and oversight of all Project procurement activities; (ii) coordinating procurement oversight specifically for regular procurement audits, checking completeness of all procurement documents before they are issued to the suppliers/bidders/contractors, and checking and ensuring the quality and completeness of documents submitted to the World Bank for review; and (iii) consolidating the Project PPs received from each implementing agency (regional bureaus and federal Implementers). The WDC PMU will be responsible for the procurement of major common-use items and strategic goods and equipment (vehicles, bulk office equipment including computers and software, etc.). The WDC PMU is also responsible for the selection and employment of consultancy services managed by the Project's implementing agencies, which have the nature of covering two or more regions or fall under Component 4 (climate-resilient WASH), and for advertising international competitive bidding contracts on the UNDB online on behalf of all implementing agencies. The WDC PMU and PCAD will also be responsible for reviewing, ensuring the quality and completeness, and channeling to the World Bank all procurement documents requiring prior reviews. The four RWRDBs (Amhara, Oromia, SNNP, and Tigray) will be responsible for the procurement and implementation of the works and related services contracts for civil works; supply and installation of pipes and fittings and electromechanical equipment; selection of consultants to carry out specific studies, construction supervisors, etc.; and procurement of office equipment and furniture as per the approved procurement plan. The WDC PMU will also carry out procurement functions for goods, consultancies, and minor works if needed for activities under Subcomponent 4.1 that will be managed by the River Basin Developed Authority that is subscribed to the MoWIE or the National Meteorological Agency. The RWRDBs are responsible for the coordination and support to the respective regional Project-implementing bureaus. The WDC will provide the necessary support and oversight to the regional bureaus to ensure that the procurement and contract management is carried out as per the governing procurement rules and timely completion of the contract within the contractual period.

65. **Procurement capacity assessment:** The procurement capacity assessment for the implementing agencies was carried out in July 2018 for the WDC PMU housed in the MoWIE and WRDF; in August 2018 for the RWRDBs in the Afar, Benshangul-Gumuz, Oromia, and SNNP regions; and in January–February 2019 for the newly established WDC. The assessment was carried out using the Procurement Risk Assessment and Management System (P-RAMS) questionnaire, which consists of 11 risk factors associated with procurement of each institution assessed. The assessment reviewed the organizational structure for implementation of the proposed One WASH-CWA, the staff responsible for procurement in the implementing agencies, as well as the internal control and the oversight system. The assessment also examined the legal aspects and procurement practices, procurement cycle management, organization and functions, record-keeping, planning, and the overall procurement environment.

66. **The assessment found that the MoWIE, MoH, MoE, WRDF, respective RWRDBs, and different towns have a vast array of experience in performing World Bank–financed WSS projects.** The assessment also covered the recently established WDC with a proclamation 1097/2018, Article 32, sub Article 18 by the House of Peoples Representative of Ethiopia. The WDC is accountable to the MoWIE as stipulated in Article 33, sub Article 14B of the proclamation number. The assessment indicates that the WDC is established as an autonomous organization to lead the WASH development sector of the country. The commission is established comprising of all technical, fiduciary, and administrative staff that were involved in the implementation of the previous Water Supply and Sanitation

Project (WSSP), including the PMU from the MoWIE. The commission is organized under nine directorates and two offices. The WRDF is also accountable to the commission.

67. **The WDC will play coordination, monitoring, and capacity-building roles, and will be the focal point for interaction with the World Bank related to the CWA including procurement**. The Procurement and Contract Management Directorate is also established under the commission and is responsible for coordination of procurement and contract management activities under the commission, including this Project. The establishment of a separate PCAD under the commission is one of the remarkable achievements in creating an accountable and responsible unit for the overall procurement and contract management of this Project. In the past, there were various implementation and accountability challenges as there was no separate unit mandated to follow up, supervise, and monitor the procurement and contract management activities under the MoWIE. The procurement and contract management team in the former PMU is fully transferred to the PCAD of the commission. As a result, the PCAD in the WDC is staffed with four procurement specialists, one contract management specialist, and one procurement coordinator who is responsible for One WASH-CWA Phase I as well as the Second Urban Water Supply and Sanitation Project (UWSSP II).

68. **The PMU and PCAD in the WDC and the RWRDBs have experience in undertaking procurement financed by the federal government budget and other bilateral and multilateral donors like the European Union and AfDB.** During the implementation of various similar projects, these implementing agencies gained reasonable experience in procurement and contract management. The federal and regional procurement laws and World Bank's procurement guidelines are known to all implementing agencies and referred to in the execution of procurement activities. Several procurement specialists were also recruited at federal and regional levels and provided with various rounds of capacity-building activities in the form of short-term training given on the procurement of works, goods and non-consulting services, and consultancy services both at domestic and overseas training institutions. As a result, over time, reasonable improvements have been made in procurement planning, preparation of quality bidding documents and request for proposals (RfPs), evaluation of bids and proposals, award and publication of contracts, contract management, and procurement record-keeping, among others. The assessment revealed that most of the existing staff dealing with procurement have adequate experience, but limited capacity in the procurement of works and goods through open international procedures and in the selection of large-value consultancy contracts including using World Bank procedures.

69. **The implementation modality of the proposed Project follows a decentralized approach whereby the regional WRDBs, RHBs, and REBs will be responsible for the implementation of the Project in their respective regions.** During the implementation of WASHP (P133591), the MoWIE delegated four regions (namely Oromia, Amhara, SNNPR, and Tigray) to implement all post-review contracts without submitting procurement documents at each stage to the WDC for prior review and clearance. The assessment revealed that these regions had performed their delegation satisfactorily and developed a reasonable capacity to handle post-review contracts by their own as the staffing, oversight, and internal control system are adequate for managing these contracts though there are still some capacity limitations in the preparation of quality procurement documents, evaluation of bids, and contract management. The WDC will also maintain the delegation given to these regions to carry out all post-review contracts without seeking the commission's review and clearance at each stage of procurement activity.

70. **The WDC also informed the World Bank team that the remaining five implementing regions—namely, the Benshangul-Gumuz, Gambella, Afar, Somali, and Harari regions—and the Dire Dawa Administration have also requested delegation for managing of post-review contracts.** However, the recent assessment revealed that these regions would not qualify for the next delegation to undertake the civil works, procurement of goods, and consultancy services on their own as there are weaknesses identified related to the number and capacity of staffing, and weak internal control and oversight systems. These regions should put in place qualified and experienced

procurement and contract management staff and strengthen their internal control systems to qualify for the delegation. Until then, the WDC needs to continue to review and provide clearance of their procurement documents at each stage before they proceed to the next step.

71. **The procurement assessment found that the studies for the identification of water resources and designs for the construction of water supply schemes were carried out either by the implementing agencies' in-house capacity or by consultants.** In most cases, the studies and designs were not completed on time, and their quality is below standard. There is no reviewing and endorsing mechanism to ensure the quality of these documents. The lack of oversight has seriously affected the quality of the construction and contributed to the delays and cost overruns during implementation of the Project. To mitigate against this bottleneck, the MoWIE has recruited several experts with international experience through external TA. This expert team will support the WDC in providing technical backstopping to review and endorse the study and designs of all water-supply-related documents before the documents go to the bidding process.

72. **In the Oromia region, the assessment found that the Regional Water Bureau (RWB) is required to submit the procurement documents and the contract agreements related to civil work, drilling, and consultancy service contracts to the Regional Construction Bureau and get approval before the RWB can proceed to the next stage**. The assessed records show that the construction bureau takes between 18 to 46 days to review the documents and respond to the RWB. This practice created unnecessary delays without adding any added value to the procurement process as the construction bureau has no knowledge and experience of the World Bank's procurement rules and procedures. Therefore, the assessment recommended that the RWB as an implementing agency under this Project should be responsible for all procurement processes and contract management and keep all records as per the World Bank's requirements.

73. **The assessment also identified that the SNNPR RWB delegated the nine zones in the region to carry out some parts of the Project's procurement activities.** In the process, the zones are delegated to prepare bidding documents, carry out bid evaluation, and submit the draft bidding documents, bid evaluation report, and draft contract to the RWB for review and approval before they proceed to the next step. The delegation to the zones is not adequate because: (i) during the preparation of the WASHP (P133591), these zones were not identified as implementing agencies and their procurement capacity was not adequately assessed; (ii) communication between the RWB and the zones at each procurement stage is unnecessarily prolonged, which causes significant delays in timely completion of the procurement process and contract management; and (iii) the procurement documents are kept in respective zones where they are not recognized as implementing agencies, and they are not subjected to external audit by the World Bank. At this stage, due to weaknesses identified, the assessment recommended that the RWB as an implementing agency, should be responsible for handling procurement and contract management in those zones and keeping the documentation for internal and external procurement audits. Plans to increase procurement capacity at the zonal level should be put in place and delegation to zones can be reconsidered during Project implementation, pending adequate capacity and safeguards are in place.

74. **The WRDF is also involved in the Project as an on-lending institution to medium towns.** The WRDF reviews business plans prepared by the towns and determines the eligibility of the town utilities for the on-lending requirements and monitors implementation of the contracts by reviewing the PPs, bidding documents, and bidding evaluation reports, and administers the contracts of the towns receiving loans. The World Bank team assessed the procurement capacity of the WRDF. The agency has three procurement specialists, two of them with more than eight years' experience working on government- and World Bank–financed projects. The third staff member also has experience in contract management. The practice in the WRDF is that the ad hoc evaluation committee carries out evaluation and submits a report with the recommendation to award the contract to the head of the agency. There is no institutionalized team (oversight body), like the tender-endorsing committee, which is responsible for reviewing

and approving the PPs, bidding documents, bid evaluation report, and draft contract agreement. The procurement process in the WRDF has its limitations in reviewing the procurement documents by an independent body and in handling the complaints filed by the bidders. In principle, the head of the agency is not expected to be involved in the review and approval of the evaluation report and recommendation to award the contract. The head of the agency's responsibility is to receive complaints and ensure that the complaints filed are appropriately addressed in a timely manner. Moving forward, the WRDF can handle the Project procurement with the conditions that: (i) it should establish an endorsing committee with a clear mandate and responsibility for Project procurement; (ii) it should provide tailored training in procurement and contract management to the procurement specialists and the tender committee members and evaluation committee members; and (iii) WDC shall review and clear the first two National Competitive Bidding contracts.

75. **The Project intends to allocate 18 percent of the funds to hygiene- and sanitation-related activities. Though the major activities under this component are undertaken at decentralized levels, the MoH is responsible for the coordination of health-related activities of this component, while the MoE will be responsible for WASH activities in schools**. The MoH has plans to procure water quality test kits and IT equipment. As per the existing health sector procurement arrangement, all health-related equipment and pharmaceuticals are purchased by the Pharmaceutical Funds Supply Agency (PFSA); under this Project, the PFSA will also procure the water quality test kits as well as any other related items. The MoH will purchase IT equipment and prepare and get the approval of PPs for things that will be procured by its procurement unit and the PFSA.

76. **The procurement capacity assessment has revealed several challenges in the overall procurement capacity of the implementing agencies.** Weaknesses remain particularly at regional levels, leading in some cases to noncompliance with critical procedures. Given the significant capacity gap and inadequate oversight mechanism, the risk of the procurement operation of the Project is rated as substantial. The specific weaknesses identified are: (i) poor performance and limited capacity of contractors to complete the contracts according to their contractual obligations as most of the contractors and drilling companies engage in different contracts simultaneously with inadequate ability to handle separate contracts concurrently; (ii) below-standard studies and design documents resulting in poor-quality works, delays in timely completion of contracts, and cost overruns; (iii) although there are procurement staff, shortage of qualified and proficient procurement and contract management staff at the RWB, which resulted in delays and preparation of substandard design documents, bidding documents with unrealistic cost estimates, evaluation of bids/proposals, and weaknesses in adequately managing the contract; (iv) inadequate office space in the WRDBs to keep procurement records and facilities for the Project Implementation Unit (PIU) staff to efficiently operate and discharge their duties; and (v) an inadequate internal control and oversight system, which has highlighted that the independent procurement audits of WASHP (P133591) were not carried out for the last four years though it is a requirement for the WDC to carry it out on an annual basis. As a result, it was difficult to monitor and supervise the procurement performance against the governing rules and procedures and take appropriate action on time. Key issues and associated mitigation measures that have been discussed and agreed upon are shown in Table A1.4.

Table A1.4: Summary of Procurement Findings and Actions (Risk Mitigation Matrix)

No	Issue/Risk	Severity of Impact on Project	Mitigation Measures	Responsible Entity	Expected Date of Completion
1	Lack of procurement-proficient staff in implementing agencies at the regional level	High	Conduct regular procurement capacity enhancement training on the World Bank's New Procurement Framework and	WDC	• First training before Project effectiveness and regular training annually

No	Issue/Risk	Severity of Impact on Project	Mitigation Measures	Responsible Entity	Expected Date of Completion
			recruit qualified and experienced procurement specialists: MoWIE (2), Benishangul (2), Afar (2), Gambella (2)		• Staff recruitment before effectiveness
2	Inadequate skills and knowledge on the governing procurement procedures and contract management	High	Prepare and disseminate One WASH–CWA procurement manual	WDC	• After Board approval
3	Absence of regular procurement reporting, monitoring, and tracking system	Substantial	Provision of training on uploading of documents at each procurement stage in STEP	WDC and respective regions	• Progress report before each ISM • Upload all data within a week's time after contracts are initiated.
4	Preparation of substandard procurement documents including unrealistic cost estimates and incomplete bidding documents at the regional level	Substantial	• Create capacity on the use of standard procurement documents (SPDs)/request for proposals (RfPs) for producing and issuing quality bidding documents (BDs)/RfPs • Establish a technical team to review and ensure the quality of studies and design documents	WDC and the respective regions	• Keep updated cost estimates regularly • The technical team should ensure the quality of BD/RfPs before issuance to the bidders/ consultants
5	Inadequate records management system	Substantial	• Provide safe record-keeping facilities to all • Keep records in safe and secured place without exposure to unauthorized personnel • Establish records-retrieving system	All implementing agencies	• Within first year of the Project implementation • Ongoing • Ongoing
5	Absence/weak internal procurement control system	Substantial	• Establish an efficient internal control system including establishing an endorsing committee for the agencies that do not have these committees • Strengthen the existing internal control system	WRDF and WDC All implementing agencies	• Before Project effectiveness • Ongoing
6	Delay in evaluation of bids/proposals, review, and approval of the procurement documents	Substantial	• Regularly review the progress of the key contracts and take immediate action • Establish an internal business standard and accountability	All implementing agencies	• At least quarterly • Before Project effectiveness

No	Issue/Risk	Severity of Impact on Project	Mitigation Measures	Responsible Entity	Expected Date of Completion
			system		
7	Delays in preparation of ToRs/specifications/bill of quantities (BoQ) for planned procurement activities; delays in implementation of planned procurement activities	Substantial	• Develop an accountability framework with defined business standards, and engage beneficiary technical departments as early as possible • Involve qualified technical experts (consultants) to support preparation of technical specifications and functional requirements of bidding documents, BoQs, and ToRs as required	WDC, WRDF, RWRDBs	• Establish the framework in the first year and is an ongoing task • Ongoing
8	Delays in submission of independent procurement reviews	Substantial	• Appoint the OFAG to carry out annual independent procurement reviews and submit the report within three months after the end of each budget year	WDC	Submit the report within six months after end of the audit year
9	Inadequate office space and facilities for the procurement team to properly discharge their duties and keep records in safe and secure conditions	Substantial	• The regional implementing agencies need to provide adequate office facility to the procurement staff	RWRDBs	Before effectiveness of the Project
10	Inadequate contract management practice/delays in completion of civil work, drilling, and consultancy service contracts	Substantial	• Provide training in contracts administration and management to all implementing agencies involved in the full cycle of procurement. • Package some of the interlinked activities as appropriate and encourage bidders to bid	WDC, WRDF, RWRDBs	• Within the first year of the Project period • Package the works contract as required.

77. **PPSD:** The procurement arrangements provided under the PPSD are aimed at attaining value for money in the procurement of works, goods, and services under the Project. Although the investments under the Project provide for works, goods, and services, the most substantial inputs are the construction of civil works, supply, and installation of pipes and fittings and electromechanical (EM) equipment. Experience in similar projects indicates that the procurement of civil works pipes and fittings and EM equipment account for most of the procurement activities under the Project. Under the current Project, it accounts for more than two-thirds of the Project resources. To attain value for money in the procurement of civil works, the procurement arrangements shall be made in such a way that

the WDC and the respective RWBs acquire experienced and qualified contractors associated with the suppliers and drilling companies on time and at a reasonable contract amount. The PPSD described that there are qualified contractors in the national market who can construct medium- and small-value water supply contracts. However, the assessment and the PPSD indicate that there is a shortage of capable and experienced drilling companies in the country. Recent missions and the evaluation identified delays in the implementation of the WASHP (P133591), which resulted in construction delays. Among others, the delays are mainly related to the inadequate capacity of the contractors and drilling companies, delays and substandard deliverables by the consultants, lengthy procurement and approval processes, and improper contract management. Expediting the procurement process, establishing proper contract management systems, and attracting capable companies are recommended as a way forward to resolve this challenge. Hence, implementing agencies need to design a mechanism to attract competent and experienced drilling companies for this Project. One of the incentives may be packaging the study/source identification and drilling work as one contract to attract companies as this approach minimizes the chance of resulting in dry wells. It is also recommended that the civil works be packaged with the supply and installation of pipes and fittings and electromechanical equipment in one contract; if small towns are in the same zone, these may be packaged in one contract with multiple lots to reduce procurement processes and the burden of managing numerous contracts simultaneously. For urban water supply, experimentation with different varieties of design-build contracts is also recommended.

78. **Supervision and implementation support:** The World Bank will provide oversight of procurement activities through prior reviews, which will be based on the risk level assessed by the World Bank carried out during appraisal and shall be updated annually. Based on the activity risk rating, the borrower shall seek the World Bank's prior review for contracts of values detailed in Table A1.5. The World Bank also reviews the procurement management of the implementing agencies as part of the Project Implementation Support Mission (ISM), which is carried out on a biannual basis. In addition, the Government shall: (i) appoint the federal OFAG to carry out an independent procurement review or an independent procurement auditor to carry out an independent procurement audit of the procurement activities annually; and (ii) submit the procurement review report or the independent procurement audit report within six months' time from the end of the audited fiscal year to the IDA for its review.

Table A1.5: Prior Review and Procurement Approaches and Methods Thresholds

Category	Prior Review (US$ millions)					
		Open International	Open National	RFQ	Shortlist of National Consultants	
					Consulting Services	Engineering and Construction Supervision
Works	≥5.0	≥7.0	<7.0	≤0.2	n.a.	n.a.
Goods, IT, and non-consulting services	≥1.5	≥1.5	<1.0	≤0.1	n.a.	n.a.
Consultants (firms)	≥0.5	n.a.	n.a.	n.a.	0.2	0.3
Individual consultants	≥0.2	n.a.	n.a.	n.a.	n.a.	n.a.

Procurement Arrangements:

79. The procurement arrangements for high or substantial risk contracts within the Project are provided in Table A1.6. The procurement plan for the Project is agreed with the Borrower and is provided in the PPSD.

Table A1.6: Procurement Arrangements for Substantial Risk Contracts

S/N	Contract Title, Description and Category	Estimated Cost (US$) and Risk Rating	World Bank Oversight	Procurement Approach/ Competition	Selection Method	Evaluation Method
1	Civil work, supply and installation of pipes and fittings, and supply and installation of electromechanical equipment for medium-sized towns, WSSP/works	20 million per package	Prior	Post Qualification Open International	RFB	Most Advantageous Bid
2	Procurement of 67 vehicles/ goods	1.67 million	Prior	Post Qualification Open International	RFB	Most Advantageous Bid
3	Procurement of 700 motorcycles/goods	1.5 million	Prior	Post Qualification Open International	RFB	Most Advantageous Bid
4	Civil works, supply and installation of pipes and fittings, and supply and installation of electromechanical equipment for medium-sized towns, various packages/works	Less than 7 million per package	Post	Post Qualification Open National	RFB	Most Advantageous Bid
5	Civil works, supply and installation of pipes and fittings, and supply and installation of electromechanical equipment for rural piped systems/works	Less than 5 million per package	Post	Post Qualification Open National	RFB	Most Advantageous Bid
6	Drilling of deep and shallow water supply sources for rural and urban water supply projects, various packages/works	Less than 2 Million per package	Post	Post Qualification Open National	RFB	Most Advantageous Bid
7	Study, design, and construction supervision, and contract administration of water supply systems, various packages/consultancy services	400,000 per contract	Post	Post Qualification Open National	QCBS	Most Advantageous Proposal
8	Water source mapping and monitoring for CR WASH, various packages/consultancy services	400,000 per contract	Post	Post Qualification Open National	QCBS	Most Advantageous Proposal
9	Selection and employment of independent procurement audit/consultancy services	250,000 per contract	Post	Post Qualification Open National	QCBS	Most Advantageous Proposal

Safeguards

80. **Social and environment safeguard instruments were prepared and implemented under OWNP Phase I—WASHP (P133591).** No major safeguard issues have been reported under Phase I to date. Social impacts have been assessed for the new investments to be accommodated under the new Project.

81. **For the majority of subprojects involving small-scale land acquisition, the farmers and community provided land voluntarily.** When farmers gave their small pieces of land voluntarily, they were consulted, and the minutes of the consultation were properly documented. In addition, implementing agencies at the woreda level and communities have been well informed about the scope of voluntary land donation. If subprojects were to cause significant land acquisition and loss of assets, they were managed through changing the design, site selection, and rerouting. If impacts could not be avoided, both in-kind and cash compensation were used. Because of the implementation of subprojects under the current Project, a total of 9.5 hectares of land was permanently acquired and compensated. Accordingly, 1.5 million Ethiopian Birr monetary compensation has been paid for 273 households. In addition, 5.5 hectares of replacement land was provided for project-affected persons (PAPs).

82. **The social performance audit exercise on the current WASHP has indicated that regular monitoring, adherence to safeguard requirements, and proper documentation of mitigation measures are major gaps.** To address this, the proposed CWA activities will include reporting on the status of compliance with the ESMF, RPF, social assessment (SA), and each supplemental social and environmental safeguard instrument, as part of the CWA progress reports.

83. **Risk and safeguard management:** As with the current WASHP (P133591), flexibility was exercised (and will be further exercised) under the new Project in selecting the subproject sites with a view to avoid the taking of private land and, where unavoidable, to minimize the adverse impact on local communities. Alternative sites were examined for investments that may cause adverse social and economic impacts in the target areas. The flexibility of site selection will enable the Project to minimize physical relocation and economic displacement as well as to avoid socially and environmentally sensitive areas. Preference is given to government land with no encumbrances. CWA activities will minimize economic disturbance to those dependent on land and only partial land will be acquired from the owners if needed, so that project-affected persons are not deprived of their income-earning ability. Valuation of land and compensation for each type of asset will be based on replacement value; proper consultation with the communities involved and local authorities on all socioeconomic issues arising from Project activities will be ensured.

84. **Borrower's institutional capacity:** The Borrower's capacity to ensure environmental and social due diligence of the CWA activities has steadily increased over the past few years through support from Phase I and the Second Urban Water Supply and Sanitation Project (P156433). At the federal level there is an independent safeguard unit consisting of safeguard experts (two environmental and two social) dedicated for the ongoing UWSSP II (P156433) and WASHP. There are also 19 safeguard experts working at the regional level. Furthermore, in some regions (Tigray and Amhara) woreda-level safeguard focal persons have been assigned. The Environmental and Social Management Unit (ESMU) has implemented several ESMFs and other safeguard instruments for various projects including the current Project and urban water supply project (phase I and II).

85. **However, further training and capacity-building activities at all levels are required.** The CWA will ensure that all regions have assigned woreda-level focal persons responsible for all matters of safeguarding subprojects implemented by various sectors, including health and education, and that their capacity is strengthened. The CWA will allocate adequate budgets for continuous training to further improve the quality of screening, reporting, monitoring, and documentation of safeguard activities.

86. **Social assessment:** As per the OP4.10, al residents of Ethiopia are considered indigenous to the country. In lieu of an Indigenous People's Framework, a Social Assessment has been conducted. The findings of the social assessment highlighted that the WASHP had made considerable progress in improving the WASH services of people including pastoralists and agro-pastoralists. Despite the progress made, some potential adverse impacts and risks remain in the following areas: (i) gender disparities in access to information and decision making tend to sideline women's interests; (ii) there is low technical capacity among the implementers particularly at the woreda level to properly implement Project safeguard instruments; and (iii) limited consideration for disabled people during subproject design. The CWA will require remediation plans that will ensure adherence to safeguards, including monitoring safeguard compliance, institutional capacity building in the subject of safeguards, and the placement of adequate and trained personnel in regional and woreda offices, as well as staff that are capable of handling safeguard requirements. Regarding technical design and inclusion, both the MoH and MoE have revised their technical design guidelines for institutional sanitation facilities to incorporate elements of disability and gender in their standard designs.

87. **Stakeholder consultations and disclosure of safeguard documents:** In accordance with the World Bank's operational policies, stakeholder consultations with public and private sector institutions, civil society organizations, traditional authorities, and community groups have taken place as part of ESMF and RPF formulation. Stakeholder workshops have been carried out to discuss all aspects of the Project prior to finalization of the ESMF, RPF, and SA. These workshops involved all key beneficiary and stakeholder groups, particularly PAPs; seeking feedback and consensus from stakeholders; and incorporating comments, suggestions, and remediation proposals into the ESMF, RPF and SA. The CWA has relied on culturally appropriate consultations with underserved communities using participatory approaches, including workshops and focus group discussions with key stakeholders to discuss the One WASH–CWA and its priority areas. The consultation was voluntary, gender and intergenerationally inclusive, and conducted in good faith. The reports of the SA and enhanced consultation indicate the broad community support of the affected communities. The main social challenges highlighted, and suggested actions include the following.

88. **Strategy for women's participation:** To ensure equal participation of women, the CWA prepared a Gender Action Plan (GAP), which provides mechanisms appropriate for women's participation in the decision-making, planning, implementation, and monitoring stages of subproject development.

89. **Institutional capacity:** The regional- and woreda-level institutions assigned with the responsibility for Project implementation have some gaps in implementation. The Project will therefore actively support relevant implementing agencies and assess their track record, capabilities, and needs as well as the adequacy of the Project staff and logistics in the field.

90. **Vulnerable group issues:** Despite improvements, affordability of WASH services by poor, vulnerable, and underserved populations may not be fully addressed. Therefore, the Project has established mechanisms for communities to identify vulnerable households within their communities and agree on subsidized fees for the poorest and most vulnerable groups.

91. **To gain a better understanding of gender gaps at the national level, a review of the MoWIE was taken on a sample basis of the OWNP-implementing sectors.** Gender profiles for the MoWIE show that the majority of the positions in the ministry are occupied by men. Permanent employees of the MoWIE are 780 in number, of which 307 are women—about 39.35 percent. While the number of females working in the lower administrative positions is relatively high (45.5 percent), the number of females working in the technical area is low (32 percent). Overall, out of the 24 director positions under the MoWIE, only four positions were held by female staff. One positive trend noted is the presence of women at the management level of the WDC, and a woman serves as the general director of the newly created Basin Development Authority.

92. **Gender mainstreaming:** The GoE has a strong commitment to gender equality, which is rooted in national policies as well as in the signing of international and regional treaties and protocols on women's rights. The Ministry of Women and Children Affairs contributes to policy development and supports gender mainstreaming in all government ministries and bureaus. To date, gender units have been established in all line ministries including the MoWIE, MoH, MoE, and MoF. However, the practice of the ongoing WASHP shows that the participation of women at all levels needs to be strengthened and promoted further.

93. **Gender action plan:** As part of Project preparation, the MoWIE prepared a draft GAP for the CWA that will focus on: (i) ensuring women's equitable participation in program-related public consultations and decision making; (ii) incorporating disability- and GBV issues in the design and features of WASH infrastructure including separate latrines for boys and girls in schools; (iii) promoting MHM; (iv) promoting employment opportunities for women and youth; (v) providing special attention to tariffs and ability to pay for services; and (vi) strengthening the implementing agencies' institutional capacities for gender mainstreaming. The GAP will be refined during implementation, informed by a study on the different constraints men and women face in the WASH sector with proposed actions that need to be put in place and the necessary mitigating measures. The Project will ensure active participation of women in the decision-making processes in the PIUs, the Project Steering Committees, as well as promote the active participation of women in municipal water boards and WASHCOMs. There will be TA for the NWCO to enable them to: (i) monitor the implementation of GAP; (ii) provide gender training for key stakeholders including the MoWIE and water, health, and education bureau staff to ensure an understanding of women's issues; and (iii) collect gender-disaggregated information as part of the Project's results tracking and monitoring system. Gender-disaggregated information will be collected as part of the routine tracking and monitoring system of the Project. The GAP has been incorporated in the POM.

94. **Citizen engagement:** The Project will further facilitate citizen's empowerment by conducting social M&E surveys with beneficiaries before the midterm review (after the first year's activities are carried out) and postimplementation (after all subprojects are carried out) to evaluate the impact on the ground. The surveys will use gender-disaggregated data to measure and verify citizens' perceptions of the Project's activities and will serve as a tool to define gender or social issues and recommendations for further improvements in the WASH sector.

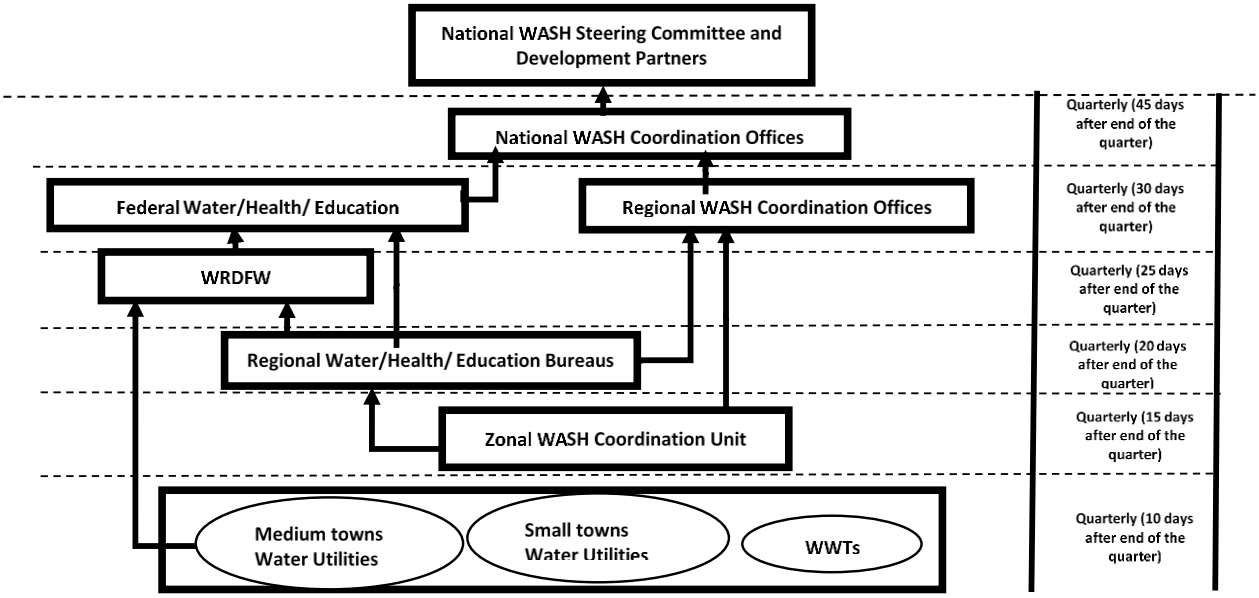
95. **Tools for conflict mitigation:** As part of the ESMF and RPF, screening tools have been reviewed and enhanced, which include thorough consultations, involvement of key community leaders to facilitate dialogue, and documentation of entire processes (consultation, design, compensation if any, etc.). Further, key actions have been articulated to strengthen the CWA's redress mechanisms to ensure adequate consultation and handling of cases raised at the woreda level. For Component 4, where water-related conflicts are particularly acute, a dedicated team will carry out feasibility studies to dimension needs considering water resources availability. Technical teams will be supported by Project-contracted Community Facilitation Teams (CFTs) that will carry out community assessments and consultations, and provide TA to communities prior, during, and after the construction of proposed water supply schemes.

Monitoring and Evaluation

96. **Reporting arrangements:** The Project's regular reporting responsibility will be placed on WASH Coordination Offices (federal, regional, and zonal), WASH sector PMUs (federal and regional), woreda WASH teams, and town water utilities. Every three months the NWCO will prepare and submit a consolidated progress report based on the agreed reporting format to the NWSC and to the World Bank within 60 days after the end of the quarter. The reports produced on a quarterly bases will focus on implementation progress and result indicator monitoring. To facilitate standard and consistent reporting among the different actors, the NWCO will develop and put in place a revised reporting guideline. The Program will also assist the WASH-sector PMUs and coordination offices to build and use a systematic data collection and compilation tool to facilitate easy report compilation. Respective higher officials and

the string committees, before submission to the next reporting line, should approve all produced reports. Figure A1.7 shows the range and schedule of reporting on Project progress.

Figure A1.7: Reporting on Project Progress



97. **Baseline assessment:** A woreda-level baseline for key WASH indicators was compiled, analyzed, and mapped for a total of 754 woredas using data collected from regional baseline reports, Health Management Information System and Education Management Information System reports, and regular reports of the Early Warning and Response Committee. Under the assessment, ten WASH indicators clustered in two groups were covered (impact and outcome level). The impact-level indicators are: (i) stunting rate; (ii) prevalence of diarrhea under the age of five; and (iii) primary students' dropout rate. Outcome-level indicators include: (i) access to rural water supply; (ii) access to rural household sanitation; (iii) open defecation free (ODF) coverage; (iv) health facility water supply coverage; (v) health facility improved sanitation coverage; (vi) school water supply coverage; and (vii) school improved sanitation coverage. Also, necessary woreda-level information and a drought and flood prevalence summary, including a correlation result between water supply and the defined impact-level indicators, are captured under the assessment. The findings will be further refined during the planned National WASH Inventory and will serve as a base for facilitating mid- and end-term as well as impact evaluations.

98. **Support to the WASH M&E and MIS:** Under the program management and institutional strengthening component, the CWA will provide support to strengthen the operationalization of the broader WASH M&E MIS system developed by joint financing of the DFID and AfDB. The support will focus on:

a. **Institutionalization of the MIS to ensure regular updating of the National WASH Inventory as well as use of the data for decision making**. This will include: (i) capacity-building support to the newly established MIS directorate under the WDC; (ii) building woreda-level capacity for regular reporting of indicators (for instance, through expanding the ToRs for CFTs); and (iii) building data analysis, interpretation, and reporting capacity at all levels through targeted training.

b. **Introducing a community-based monitoring tool (focusing on a few WASH indicators) to inform decision makers regarding sustainable service delivery.** The current data collection tool (Cosmos) can only reach up to the woreda level. Given the number and dispersed nature of schemes in a woreda and

the lack of logistics, getting real-time data on service delivery indicators such as functionality will continue to be a challenge. In response to this challenge, the CWA will provide support to explore options for community-based WASH data collection. The support will include: (i) assessment of the different community-based data collection tools that could complement and integrate with the WASH MIS; (ii) designing (including the selection of frequently needed indicators), piloting, and rolling out the selected community-based data collection tool; (iii) institutionalizing the data collection responsibility at the WASHCOM level (inclusion of this responsibility as part of the WASHCOM legalization document); and (iv) continuous capacity building of WASHCOM members for regular reporting. Information collected from community-level monitoring will be integrated into sector MIS.

c. **Introducing the rural water and sanitation information system (SIASAR) in Ethiopia:** The WASH sector in Ethiopia can draw lessons from the SIASAR model implemented in different countries of Latin America, Africa, and Central Asia. The Project will build on the ongoing WASH MIS initiative for Ethiopia and will link to SIASAR to allow a compressive and broader range of data analysis for decision making. The focus on this Project is to establish a solid M&E foundation, which will enable the sector to move toward results-based implementation approaches.

99. **The program will support the NWCO, RWCOs, and WASH Sector PMUs for regular organizing of the WASH Annual Review Meetings to track implementation progress and provide feedback for improvement.** This platform will be used to enhance learning and experience sharing among program woredas and towns. Under the platform, the best-performing woredas and towns will be selected based on a clear evaluation guideline using predefined service delivery result indicators and will be recognized/awarded. This is expected to create positive competition toward meeting intended results among program woredas and towns. Once this initiative is tested and piloted under the CWA, the platform will be scaled up to the wider OWNP. Information from the MIS will be the basis for selecting best-performing woredas and will be used as motivation to encourage regular updating of information into the MIS.

Implementation Support Plan and Resource Requirements

100. **Many of the Project team members are based out of the World Bank's country office in Addis Ababa, which helps provide timely and effective implementation support to the Client.** Semiannual supervision missions and targeted follow-up technical missions will focus on the areas described in the following paragraphs.

101. **Strategic support:** The World Bank implementation support missions will meet with national and local authorities to: (i) review progress on the Project's activities; (ii) discuss strategic alignment of the Project's different activities and the activities of relevant stakeholders; and (iii) evaluate progress on cross-cutting issues, such as M&E, gender, training, communication, dissemination of Project results and experiences, and coordination between relevant stakeholders.

Table A1.8: Thematic Support

Time	Focus	Skills Needed	Resource	Partner Role
First 12 months	Preparation of tendering contracts; feasibility studies and detailed engineering designs; safeguards screening and mitigation plans	Procurement, FM, safeguards and infrastructure specialists; hydrology and water resources specialists	Supervision budget	Provide support, national expertise, and technical advice

Time	Focus	Skills Needed	Resource	Partner Role
12–48 months	Technical support	Procurement, FM, safeguards and infrastructure/technical specialists	Supervision budget	Provide support, national expertise, and technical advice
Other	Drawing lessons learned and mainstreaming best practices	M&E and technical	Supervision budget	n.a.

Skills Mix Required

Skills Needed	Number of Staff Weeks	Number of Trips	Comments
Task Team Leaders	20	4	Based in CO
Environmental Specialist	10	4	Based in CO
Social Specialist	10	4	Based in CO
Procurement Specialist	16	4	Based in CO
FM Specialist	10	2	Based in CO
M&E Specialist	12	2	Based in CO
Communications Specialist	4	2	Based in CO
Technical Experts	40	—	Consists of several World Bank staff/consultants of different technical disciplines

Note: CO = Country office.

ANNEX 2: Detailed Project Description

COUNTRY: Ethiopia

One WASH–Consolidated WASH Account Project (One WASH–CWA)

1. **This Annex provides a detailed Project description, including selection criteria for the Project's rural water supply, sanitation, and hygiene (WASH) component; selection and readiness criteria for its urban WASH component; as well as selection criteria and mechanisms for investments financed under the sustainable and climate-resilient WASH component**.

2. **Improvements in access to WASH services have been driven by a combination of decentralization, sector reforms, and strong political commitment.** To respond to the economic, social, institutional, and operational challenges affecting the sustainable delivery of WASH services, the GoE articulated sector policies and strategies along critical reform principles that include: (i) recognizing WSS services as economic and social goods; (ii) devolving ownership and management autonomy to the lowest possible local level; (iii) moving toward full cost-recovery in the case of urban schemes and the recovery of O&M costs in the case of rural schemes;[40] (iv) applying no direct subsidy for the construction of household latrines;[41] and (v) integrating sanitation and hygiene promotion in the provision of WSS services.

3. **The ongoing Water Supply, Sanitation, and Hygiene Project (WASHP: P133591) supported the CWA in achieving significant results**, as outlined in Table A2.1. The Project is expected to meet and or exceed targets for rural and institutional WASH. Urban WASH targets have lagged due to various challenges including: (i) devaluation of the birr and high inflation that contributed to high price escalations; (ii) insecurity that limited access to Project sites or discouraged contractors from mobilizing large heavy duty equipment; and (iii) limited availability of goods such as electromechanical equipment, pipes and fittings, and steel casings that are not locally available. The Project contributed to establishing governance, coordination, and implementation structures at national, regional, and participating woredas. It has also supported the establishment of 90 urban utilities for small towns and strengthened the operational efficiency of 20 medium towns.

Table A2.1: Achievement of WASHP to Date

	Indicator	Achievement to date
Rural WASH	Number of people in rural areas provided with access to improved water sources under the program	3,613,838
	People provided with access to improved sanitation—rural	3,554,330
Urban WASH	Number of people in urban areas provided with access to improved water sources under the program	420,000
	People provided with access to improved sanitation—urban (public and communal latrines)	50,000
Institutional WASH	Number of schools and health posts provided with access to improved water facilities	2,176
	Number of schools and health facilities provided with access to improved sanitation facilities	4,050

[40] The Project design is fully cognizant of the need for gradual progress toward the achievement of full cost-recovery as a long-term objective in the Ethiopian context.

[41] There are plans to revisit and reformulate the subsidy policy for household sanitation.

4. **Project performance criteria.** Ten percent of the Project funds will not be allocated to regions at the commencement of Project implementation. These funds will be used to motivate and empower regions to expedite implementation in order to access unallocated resources. The performance criteria will be regionally tailored to put in place benchmarks that are in tandem with the capacity in each region. At the midterm review stage, implementation progress will be assessed, and unallocated funds will be allocated based on the following performance criteria. Unallocated funds will be used to finance additional activities that are part of the Project scope for component 1, 2, and 3. Delegated regions (Amhara; Oromia; SNNP; and Tigray) that have been given a greater deal of responsibility for implementation will adhere to one set of criteria that is commensurate with their implementation capacities. The remaining five regions and the Federal City of Dire Dawa will adhere to another set of performance criteria that is commensurate with their implementation capacities. The performance criteria will be further appraised and may be modified in the POM. The performance criteria include targets such as: (i) the percentage of kebeles declared ODF; (ii) the provision of timely management information system (MIS) data; (iii) the meeting of regionally agreed-upon targets for increasing access; and (iv) the meeting of regionally agreed-upon targets for the share of water schemes deemed nonfunctional.

Component 1—Rural Water Supply, Sanitation, and Hygiene (US$110 million equivalent of which US$94.3 million equivalent is from IDA financing)

5. **Selection criteria for woredas under the Project.** The regional WASH technical team, in consultation with regional administrations, will determine how to prioritize woreda participation since all woredas may not be assisted simultaneously with the available resources and capacity under this Project. A technical team composed of representatives of the–(WDC and DPs was established to review and refine woreda selection criteria for the CWA in consultation with regional stakeholders from the RWBs and PMUs. The selected geographic areas will be provided with integrated interventions to improve WASH services. For rural communities that are vulnerable to climate shocks and preidentified though MoWIE' s mapping exercise (which uses multi-hazard and disaster risk prevalence methodology), tailored water supply solutions will be scoped, designed, and financed through Component 4. Where the area of intervention potentially extends beyond the woreda's administrative boundaries, efforts may require management models that vary from traditional WASH Committees (WASHCOMs). The selection and readiness criteria for rural communities to be supported under this Project include the following.

Selection Criteria

(i) **Level of WASH access and coverage based on the WASH baseline data compiled from regions and verified by the federal WASH ministers:** Efforts to measure this will primarily focus on the following indicators (i) the level of rural water supply coverage in line with the GTP II standard; (ii) household sanitation coverage based on the MoH definition for improved household latrines; (iii) proportion of ODF kebeles in a woreda; (iv) WASH coverage for schools; and (v) WASH coverage for health facilities. The selection criteria include the level of stunting (based on data collected from the health MIS at the woreda level) as well as the "prevalence of acute watery diarrhea" (also using data from the woreda-level health MIS). These will be used as proxies to prioritize areas with poor sanitation. Woredas with relatively low levels of WASH coverage based on these indicators will be given priority.

(ii) **Level of ongoing assistance in the woreda:** Woredas with a lower level of ongoing support from other financing sources will be given priority for financing from the Project.

Readiness Criteria

(i) **Compliance with safeguard requirements,** based on initial screenings as outlined in the ESMF.

(ii) **Implementation readiness of woredas**: Expressed through commitments from participating woredas and communities to establish or strengthen WWTs, assign qualified personnel to plan and manage the Project at each sector office, assign a woreda focal point to provide safeguard oversight, and allocate matching funds during Project implementation. Woredas are required to have strategic and annual plans that encompass health, education, and water.

6. **Component scope.** This component will finance the construction (new, expansion, and rehabilitation) of water supply schemes and promote hygienic behavior to increase household sanitation in selected rural communities as well as strengthen sustainable service delivery.

Subcomponent 1.A—Increasing Rural Access to Water Supply and Sanitation Services (US$96.60 million of which US$82.80 million equivalent is from IDA financing)

7. **This subcomponent will target woredas selected based on the criteria set forth to finance the:** (i) preparation of woreda WASH plans; (ii) study, design, and supervision of water supply schemes; (iii) construction of new water supply schemes; and (iii) rehabilitation of existing water supply schemes. For sanitation, this component will finance: (i) sanitation and hygiene sensitization and community mobilization through government-led health extension workers as well as Project-contracted CFTs; (ii) establishment of sanitation marketing centers (SMCs); (iii) capacity building for vocational institutes, microfinance institutions, MSEs, and regional governments; and (iv) follow-up and monitoring to ensure sustained gains for sanitation interventions.

8. **Woreda WASH Strategic plans:** The development and rehabilitation of water schemes will be guided by strategic woreda WASH Strategic plans, which will be financed and developed through capacity-building interventions under this component. The woreda WaSH strategic plans will define approaches to WSS schemes, articulate roles and responsibilities for O&M, and assess socioeconomic factors and determine affordability. These plans will also assess socioeconomic elements to set an appropriate range of tariffs and water use fees that WASHCOMs should collect to cover the O&M of their systems. This activity will consider water resources available and each proposed scheme will be accompanied by adequate source protection measures. Scoping and development of water supply schemes will build on available water resources information to identify a mix of appropriate technology, assess available water resources to meet current demands (human consumption and livestock where necessary), and articulate associated monitoring activities. The plans will also include contingency planning, particularly for woredas vulnerable to floods and droughts to mitigate and reduce impacts of climate shocks. Technology selection will be guided by the GoE's guidelines for an approved and vetted menu of technology options, which includes design parameters for a wide variety of schemes (including hand-dug wells, springs, shallow and deep boreholes, water harvesting [rain and surface water], etc.). The plans will also outline proposals for institutional capacity, roles, and responsibilities of implementing agencies, support systems (e.g., WWTs, CFTs, and community WASHCOMs).

9. **Sanitation marketing—the supply side:** The MoH in collaboration with DPs including the World Bank has developed sanitation marketing business models to move communities up the sanitation "ladder." This sanitation marketing approach requires that both the supply and demand side be supported. The Project will finance the construction of SMCs to facilitate production of sanitation slabs and other products, storing of sanitation products and raw materials, and serve as a location to coordinate business and promotion activities. Construction of sheds will be made possible at sites that best serve a wide network of woredas, small towns, and rural kebeles to optimize resources and generate economies of scale. Often the transportation of inputs and products to customers make products more expensive, which impacts the purchasing capacity and willingness of end users. To overcome such issues, given that most centers will be located near small urban centers, town support groups (TSGs) will help in undertaking a basic analysis of the best site(s) on which to construct the production sheds. The possibility of co-locating the SMCs with water supply spare parts will also be considered on a case-by-case basis using the assessments

carried out by TSGs. MSEs will operate marketing centers. This component will support small-scale private sector engagement through capacity building for supply-side sanitation marketing to vocational training centers, microcredit institutions, MSEs, local governments, etc. An e-learning certification program in sanitation marketing has been designed and tailored in four languages. This training will be administered in partnership with local vocational centers.

10. **Sanitation marketing—the demand side:** Provision of water supply will be used as a key entry point to incentivize communities to improve household sanitation through agreements with rural WASHCOMs. Guidelines currently in use are designed in line with the community-led total sanitation (CLTS) approach. Trained facilitators and Health Extension Workers (HEW) have been working hard to promote the use of latrine facilities, which has helped reduce OD. The Project will strengthen community mobilization through a community-centered approach (CCA), which draws upon the support of respected community leaders. This is a complementary approach to the CLTS. Community mobilization will be made possible with well-trained and equipped facilitators. All relevant facilities and tools required to provide the training, including audio and video, should be prepared in advance, the meeting venue should be checked, and an invitation should be extended by the kebele chairperson. Religious and traditional leaders, elders, HEWs, heads of schools, heads of health facilities, kebele management members, women and youth, students, and others will be invited for "sensitization" (that is, awareness of the health-related dangers of unhygienic sanitation practices) and to reach an agreement on the actions. The cost of facilitation will be covered by the Project. WASHCOMS will be trained to play an active role in fund raising and monitoring household sanitation in the community. Oversight and increased accountability from a local institution such as the WASHCOM is expected to further motivate community members through friendly peer pressure. After formal training participants are expected to agree on clear, doable actions with a clear time frame and the type of latrines to be constructed. The WASHCOMs and HEWs with support from the CFTs will take the responsibility to follow up and monitor progress at the community level. Technical support will also be extended to the household through the organized MSEs for latrine construction and upgrading.

11. **Sanitation financing.** Current GoE policy does not allow for direct subsidies for household sanitation. To promote household sanitation, WASHCOMs will be encouraged to establish a community-saving mechanism (locally known as *Iqob* or *Idir*). Alongside water fees, WASHCOMs will collect a small fee and set it aside to support households to construct or upgrade their sanitation facilities. The pooled resources will be given to a different member or several members (depending on funds) each month. WASHCOMs will maintain these collected funds along with water use fees in designated bank accounts as per the guidelines for O&M of community water supply schemes.

12. **Linkages with other national programs.** This intervention has a link with health- and nutrition-sensitive interventions as per the National Nutrition Plan (NNP) of the government that contributes to reducing stunting. The baseline data collected for the preparation of this Project indicate a negative correlation of WASH interventions to stunting. Sanitation facilities also relate to gender equality and inclusion. Sanitation facilities, hygiene promotion, and MHM at schools significantly contribute to increasing girls' school attendance and learning capacities, and so directly impact girls' academic achievement.

Subcomponent 1.B— Enhancing Service Delivery Management Capacity (US$13.40 million of which US$11.49 million equivalent is from IDA financing)

13. **Despite notable gains in access to WSS services, sustainable service delivery continues to be a challenge, with a high non-functionality rate and contamination of water points.** This subcomponent will finance: (i) capacity building and strengthening of WASHCOMS to effectively manage and monitor service delivery and promote sanitation; (ii) establishment, training, and strengthening of MSEs for availing affordable maintenance and spare part supply services near to the community; (iii) promotion of linkages between rural WASHCOMs and urban water boards

and utilities to serve as an additional network for TA; (iv) strengthening of federal-, regional-, and woreda-level O&M capacities; and (v) operationalization of potable water quality monitoring.

14. **Strengthen the capacity of WASHCOMs.** The program is designed to ensure the sustainability of rural water supply schemes, mainly through community ownership, control, and management. Strengthening community ownership is not a one-time activity; instead, it requires continuous follow-up, refresher training, and close monitoring. Accordingly, this activity will mainly finance the cost of hiring, training, deployment, and operational expense of CFTs. CFTs are small teams consisting of community development, hygiene and sanitation, and technical specialists contracted by the WWTs. CFTs work closely with communities to: (i) establish WASHCOMs and train their members; (ii) enable WASHCOMs to have and manage a proper fee collection system for O&M through setting standard tariff structures, establishment of own bank accounts, and strengthening of bookkeeping practices; (iii) enable WASHCOMs to monitor and report non-functionality of their schemes as well as hygiene and sanitation practices of their respective communities in a timely manner; (iv) build technical capacity of WASHCOMs to respond to small-scale repair and maintenance requirements through provision of technical training and facilitation of easy access to technical service providers; and (v) facilitate legalization of the WASHCOMS through updating of clear manuals and guidelines. The CFTs will provide hands-on support during the community mobilization phase, design and implementation of water supply and household sanitation, as well as follow-up after construction (within six months to a year).

15. **Establish or strengthen an effective O&M supply chain arrangement.**[42] Lack of supply and distribution of spare parts and additional costs to obtain them from a distance often obstruct communities from maintaining and repairing their rural water supply facilities. The Project will finance the establishment, training, and provision of capacity-building interventions for: (i) MSEs organized for supplying spare parts, and (ii) MSEs organized to do routine maintenance or repair works for rural WASH schemes at the request of WASHCOMs. The program will finance the procurement of initial seed stock and maintenance tools, and preparation of store facilities. The possibility of expanding MSEs' involvement in rehabilitation work, the supply of sanitation and hygiene products, water treatment chemicals, and other related works, including maintenance of generators and solar energy devices and the provision of biogas, will be explored.

16. Together with a matching fund from the woreda, the type of materials that could be made available could also go beyond those used for O&M and include sustainable energy-saving technologies such as solar pumps. The Program will build woredas' postconstruction support capacity with efforts that include: (i) adoption and development of a supply chain manual and operational guidelines by the regions for rural water supply spare parts[43] and (ii) deployment and training of CFTs (at the woreda level) and water quality monitoring experts.

17. **Clustering adjacent woredas or co-locating supply chain, O&M, and sanitation marketing centers within or near to urban utilities (small- and medium-sized towns) will be piloted to ensure cost-effectiveness through economies of scale from centralized procurement and for sale to rural WASHCOMs.** The pilot program of the AfDB, "Sustainability of WASH Facilities through Women and Youth-led Micro and Small Enterprises (MSEs),"[44] and existing

[42] While the supply of spare parts should eventually be the role of the private sector, it seems that the supply and distribution of spare parts for rural water supply schemes in rural areas of the country is not currently commercially viable.

[43] The Technical Operation and Maintenance Requirements Manual for Rural Piped Systems was issued by the MoWIE and it identified alternative supply chain models for spare parts for the rural water supply system from which regions can select appropriate options as per their regional context.

[44] Sustainability of WASH facilities through women and youth-led MSEs is a two-year (EFY 2010–11) pilot Project financed by the AfDB (US$20 million). The Project covers 19 selected woredas in all the regions and Dire Dawa. The Project aims to improve the sustainability of water supply schemes and WASH facilities in rural Ethiopia by developing reliable and affordable supply chains and O&M services through

experiences in different regions such as Tigray and Amhara will be promoted and used for possible scale-up in other regions.

18. **Build regional- and woreda-level capacity on O&M**. The water supply O&M directorates of regional water bureaus will be provided with capacity-building support to enable them to respond strategically to O&M requirements of the woredas. In this regard the Project will provide: (i) TA support for preparation of different guidelines including revision of the WASH guidelines prepared under the ongoing WASHP (P133591); (ii) support to the woredas through deployment of Woreda WaSH Consultants; and (iii) support for the establishment of CFTs at the woreda levels. Although the primary responsibility for O&M lies with the WASHCOMs, zonal and regional water bureaus are expected to provide technical backstopping in O&M issues that are outside the technical and financial capacity of the WASHCOMs. The MIS system is aimed to support local governments in tracking functionality and directing TA.

19. **Establish and strengthen water quality monitoring.** Water quality is one of the major constraints compromising expected health and nutrition impacts from improved WASH services.[45] Improvement in water quality is contingent upon the success of other interventions such as reduction of OD, construction and utilization of improved latrines, and improvements in hygienic practices. This subcomponent will support establishment, strengthening, and maintenance of the water quality monitoring and reporting systems in the Project woredas. To this end, the Project will finance: (i) TA to determine the magnitude and source of contamination from the source to consumption point for better targeting and refining interventions along the supply and consumption chain; (ii) establishment and strengthening of the water quality monitoring system including assignment or hiring of water quality experts at the program woredas, procurement of mobile water quality test kits, provision of training, regular data collection (quarterly), and monitoring reports (reporting format will be developed in the POM); and (iii) development and adherence to source protection standards (fence, drainage, cleanliness, separation of livestock water points, etc.), and promotion of hygienic practices along the value chain from source to consumption point, including use of household water treatment materials.

Component 2—Urban Water Supply, Sanitation, and Hygiene (US$105 million equivalent of which US$90 million equivalent is from IDA financing)

20. **Selection and readiness criteria for urban WASH:** Based on learning from the previous phase, this component will veer away from pre-identifying towns at the preparation stage and follow a new two-pronged approach for urban WASH to address readiness of selected towns. Step one will include capacity building and technical support to all selected small- and medium-sized towns to develop adequate town WSS business plans. Upon meeting a set of readiness criteria that include institutional, technical, financial as well and environmental and social parameters, towns will be able to access step two, for the financing and implementation of infrastructure. The cost-recovery policy will be implemented gradually, based on the financial capacity of the town to repay. In cases where the recovery of capital cost is unaffordable by towns, part of the subproject will be financed by a grant. For small towns, financing will be provided through federal government grants, blended with regional and municipal counterpart financing. For medium-sized towns, more robust readiness criteria are in place and towns will be rigorously appraised to access loans from the Water Resources Development Fund (WRDF), a credit facility of the GoE. Medium-sized towns are expected to have established service delivery mechanisms that require strengthening to improve operational efficiency, while many small towns will embark on development of institutional capacity through the TA provided

SMEs. The Project is implemented by the Water Supply and Sanitation Directorate, Micro and Small Enterprises Mainstreaming Unit, the Women Affairs' Directorate, and the MoWIE.

[45] According to the findings of the 2016 Ethiopia Socio Economic Survey, 70 percent of the samples that found high risk for *E. coli* (11–100 CFU/100 ml) at point of collection and 36 percent of the sample that found very high risk for *E. coli* (>100 CFU/100 ml) at point of collection were from improved sources.

under this component. For small towns preidentified under the OWNP Phase I (WASHP P133591) that faced implementation challenges, financing for infrastructure development will be provided through this Project, contingent on meeting readiness criteria. Forty-seven towns have completed detailed engineering designs, of which 23 have tendering documents prepared and 9 have meet the readiness criteria. An independent verification of readiness on the remaining three parameters (e.g., institutional, financial, and social and environmental safeguards) will be carried out under the ongoing WASHP to ensure a number of towns will be ready for implementation by Project effectiveness. Similarly, medium-sized towns preidentified under the OWNP Phase I that have also faced delays, will be eligible to access on-lending support from this Project, via the WRDF, upon evaluation and must meet outlined readiness criteria. It is expected that nine medium-sized towns will meet readiness criteria and be ready for tendering by Project effectiveness.

21. **Selection criteria for obtaining finance for step one activities:** Based on the available resources assigned to finance step one activities, the number of towns who will be eligible to receive funding for TA will be selected using similar criteria set for woredas. An estimated 180 towns will receive TA through step one. However, with a view to limit the amount of resources available, additional criteria—that is, regional commitment to finance source development activities—will be used during selection of towns that will be eligible for TA. Hence the scope of the TA support will try to cover all the readiness criteria except source development. Resources committed by regions to finance water source development will be considered as part of the matching fund and counterpart financing from regional governments.

22. **Readiness criteria for accessing finance for investment:** Towns eligible for receiving investment financing will be selected based on the available resource assigned for step two—investment financing. Selected towns will be eligible to receive financing based on readiness and resource availability. Independent verification of readiness will be put in place to ensure rigorous appraisal prior to investment financing. The readiness criteria include:

(i) **Governance and institutional:** This will include the establishment of boards (may vary between towns), appointment of critical professionals for managing the water supply, development of an updated business plan approved by the board of the utility, etc.

(ii) **Financial/commercial:** This will include the availability of an approved tariff structure (following a process of consultation and approval of affordable tariffs in line with GoE's policies referenced in Annex 3). For medium-sized towns with higher capacity, this criterion also includes availability of an established commercial management system (including meter reading, billing, and revenue collection), availability of an established FM system, etc.

(iii) **Technical:** This will include securing of water sources and finalization of feasibility, detailed engineering designs, and applicable bidding documents.

(iv) **Environmental and social:** Relevant safeguard assessments completed, including environmental and social screening, environmental impact assessments, resettlement action plans for the World Bank review and approval (if needed), documentation of voluntary land donation, etc.

23. **Component scope:** This component would improve access to WASH services in urban areas (small- and medium-sized towns) and strengthen the operational efficiency of urban water boards and utilities to manage WASH service delivery effectively. This component would finance: (i) preparation of business plans that lay out strategies for WASH service delivery for current and future demands (these plans would also put forward a proposal of water tariffs to be approved by town water boards, articulate prioritization and sequencing of investments in line with urban growth and demands, as well as indicate human resources and capacity needs); (ii) establishment and strengthening of urban water boards and utilities to effectively implement and manage WASH infrastructure and assets; (iii) construction,

rehabilitation, and optimization of urban water production, treatment, and distribution systems, to increase efficiency and resilience to floods and droughts; (iv) construction, rehabilitation, and management structures for public and communal sanitation facilities; (v) capacity building for participating water boards and utilities to establish and strengthen O&M of WASH services in line with GoE's stepped approach sector policy for institutional development; and (vi) preparation of feasibility and design studies for selected WASH investments.

24. **Support to the Water Resources Development Fund:** This Project will also provide technical capacity and support to the WRDF to improve its appraisal process for medium-sized towns and to develop its capacity as a local lending institution. The Project will provide targeted support for medium-sized towns to improve operational efficiency through activities such as aiming to: (i) reduce nonrevenue water (unaccounted for water); (ii) establish or improve billing, collection, and redress systems; (iii) put in place adequate MIS; (iv) improve customer relations; and (v) implement proper tariff and organizational development as per the approved business plans.

25. **Urban sanitation:** For sanitation, the Project will promote the citywide inclusive sanitation approach that has been adopted by Addis Ababa and 22 cities across the country. This approach aims to develop a full sanitation service chain from household facility to safe transport and treatment/disposal of wastewater or fecal sludge. This component will finance the following activities: (i) establish SMCs; (ii) BCC and hygiene promotion; and (iii) construction or upgrading of public sanitation facilities (communal and public latrines). For sanitation service improvement the following activities will be financed: (i) containment (e.g., public latrines with on-site treatment technology [e.g., anaerobic reactors, modified septic tanks, DEWATS, etc.] and shower facilities); (ii) transport of fecal matter (e.g., through manual and scooter-operated vacuum trucks, etc.); (iii) selected towns (estimated 5–10 towns) based on proposals prepared in business plans will also be provided with facilities such as drying beds for fecal sludge-handling sites. Sanitation activities will also provide capacity support for follow-up and monitoring at federal, regional, and zonal levels. Infrastructure for urban sanitation will be developed in coordination with water supply under the preview of the utilities, while the MoH will provide the software component of hygiene promotion and sanitation marketing.

26. **Sanitation marketing (supply and demand):** In all the selected towns, the Project will support strengthening the enabling environment. The enabling environment will include: (i) development of strategic sanitation interventions as part of the Town WSS Business Plans (TWBPs); (ii) establishment of SMCs with defined operational modality; (iii) design of systems and standards that fit the sanitation improvements, including with technology options and facilities; and (iv) community mobilization. TA will be extended by the TSGs. Dedicated staff from regional bureaus or the zonal office will monitor the delivery of the service by the TSG. The Project will cover the cost of planned coaching and timely follow-up of the selected towns. The Project will support the nomination of a focal point within the water utility to promote integrated management of WASH services. The focal point will be accountable to the head of the utility, which is under the purview of the municipality or woreda of the town. The focal point will be mandated to ensure creation of awareness; to follow up on implementation of plans; keep records with respect to sanitation services; facilitate desludging services; and coordinate with the health centers, schools, and other public institutions to improve the sanitation system of the town. Provision of household water supply connections will be used to incentivize the establishment or upgrading of household sanitation facilities. Incentives such as reductions in connection fees and prorated payments are strategies that will be used to motivate the establishment of improved household sanitation. Implementation of the software elements of sanitation (hygiene promotion and sanitation marketing) will remain the responsibility of the health sector. However, the construction of facilities will be delegated to the water sector to capitalize on the efficiency of packaging contracts with water supply development.

27. **Sanitation infrastructure:** Urban sanitation infrastructure development includes construction of public latrines, communal latrines, sheds for the sanitation marketing, and on-site treatment or fecal sludge handling sites (e.g., drying beds). Specific requirements for towns will be decided based on a quick assessment of the demand, sustainability of selected options, financial viability, and institutional arrangements. TSGs will design standard designs

for public latrines with showers and on-site treatment facilities and sanitation marketing centers. The program will support selected towns to improve their sanitation systems. The construction of facilities may vary slightly to accommodate the specific interest of the towns. O&M of public sanitation facilities will be delegated to the water utility. Based on lessons learned and successful experiences, the water utility can provide oversight for MSEs that will handle day-to-day O&M. Outsourcing O&M to MSEs will provide a source of income generation for women and youth.

Component 3—Institutional Water Supply, Sanitation, and Hygiene (US$45 million equivalent of which US$38.57 million equivalent is from IDA financing)

28. **The scope of the component:** This component will finance construction or rehabilitation of WASH facilities in health centers and schools with emphasis on the provision of a full package for each institution. The package for health facilities includes the connection or construction of water supply infrastructure, the rehabilitation or construction of sanitation facilities, handwashing facilities, the construction of placenta pits, and incinerators. School WASH facilities will include the construction, expansion, and rehabilitation of water supply, latrines, handwashing facilities, and MHM rooms. Standard design will be employed for the construction of improved sanitation facilities both for health centers and schools. Since most hospitals have access to water supply and improved latrine facilities, the Project will not avail resources for hospitals. The size and number of latrine blocks in schools will vary depending on the number of students. Similarly, the MoH has developed design criteria for a full package of interventions in health facilities. The Project will cover the actual cost of proposed facilities, supervision costs, and resources that support the establishment of WASH clubs at schools. Demand for institutional water supply will be dimensioned in the design and implementation of schemes financed under Components 1, 2, and 4. The responsibility of the school or health facility will be limited in most cases to the internal connection of water taps and water points, and increased storage (e.g., elevated tanks) as deemed relevant. On-site sanitation facilities will be expected to be sustainable and accessible to all students including those with physical impediments.

29. **Selection criteria:** Selection criteria for both schools and health facilities prioritize the following:

(i) No access or availability of WASH facilities in the institution.

(ii) Availability of water supply near the institution to facilitate connection to water.

(iii) Geographic convergence with areas covered under the other components of the Project.

(iv) Institutions targeted by other national programs to increase complementarity and impacts (e.g., the National Nutrition program, Woreda Transformation Program for Health, and General Education Improvement Program for Education).

(v) Institutions that are not receiving support for WASH activities through other resources.

Component 4—Climate Resilient Water Supply, Sanitation, and Hygiene Services (US$65 million equivalent of which US$55.71 million equivalent is from IDA financing)

30. This component is comprised of three subcomponents: (i) water resource planning and monitoring; (ii) climate-resilient water supply solutions; and (iii) a contingency response window.

Subcomponent 4.A—Water Resource Monitoring and Planning (US$5 million of which US$4.29 million equivalent is from IDA financing)

31. **As part of strengthening capacity to map, plan, and monitor water resources, the proposed Project would support the enhancement of hydromet data collection, analysis, institutional capacity building for monitoring activities, and information dissemination** by all concerned institutions including the National Hydrometeorological Agency. Information on surface water will be complemented with activities targeting groundwater. This component

will also strengthen existing early warning systems and the information value chain. These activities will build on ongoing interventions carried out by the MoWIE and those financed by bilateral DPs.

32. **Through strengthening and expanding meteorological and hydrological networks, the Project is expected to improve availability and access to reliable weather, climate, and water resource information and enhance national capacity for regular forecasting and early warning.** In addition to informing the design of water supply schemes, this intervention has significant socioeconomic benefits resulting from an informed decision by households, organizations, businesses, and governments to reduce losses from hydrometeorological disasters. Global studies have shown that informed use of meteorological- and hydrological-related information can deliver enormous benefits to society. This subcomponent will provide the foundation for information and data to better inform planning and management of WSS services and reduce impacts of floods and droughts on service delivery.

Subcomponent 4.B—Climate-Adaptive Service Delivery (US$60 million of which US$51.43 million equivalent is from IDA financing)

33. **Mapping of geographic areas to be considered under this component.** Selection criteria for areas to be financed under this subcomponent was derived from an assessment that included the following aspects: (i) Hotspot (woreda of Concern Classification Guideline), Ministry of Agriculture, May 2014; (ii) Joint Government Humanitarian Partners National Flood Contingency Plan, the National Disaster Risk Management Commission (NDRMC)-led Flood Task Force (FTF), July 2018; and (iii) abbreviated WASH baseline data, July 2018. Geographic areas that require water supply interventions that are overly complex (based on hydrology and water resources availability), cross-administrative boundaries of multiple woredas, and towns that require the establishment of shared water systems will be considered for financing. A rigorous set of criteria was utilized to map potential geographic areas that could be eligible for funding under this component. Based on this mapping exercise, geographic areas were classified into four priority classes, with priority 1 areas requiring the most urgent intervention. The 32 indicators used to classify the hotspots in four categories include: health and nutrition, agriculture, markets, and water supply for human consumption, education, and flood prevalence.

34. **Selection criteria:** The WDC in consultation with regions will prioritize hotspot woredas to be supported under this subcomponent based on the following criteria:

(i) **WASH access coverage:** Status of the WASH coverage in the woreda and level of demand.

(ii) **Readiness:** Water resource studies have been prepared or are at an advanced stage; ideally, a feasibility study in the proposed woreda includes Project proposals with identified, sustainable, and resilient water sources.

(iii) **Fund availability:** Demonstrated need that a viable technological option requires additional funding beyond allocation through a block grant (government fiscal transfer system).

(iv) **Unserved population size:** A large share of the total woreda population is without access to WSS services.

(v) **Availability of other major investments in the woreda:** The mapping activities of other WASH sector stakeholders in the woreda would avoid duplication and save funding from other Project components.

35. This subcomponent will finance water supply infrastructure for areas requiring complex schemes that potentially extend beyond woreda administrative boundaries. Financing will be pooled at the national level, and dedicated management mechanisms will be put in place to operate proposed water supply systems. The resources allocated to regions through this subcomponent will not be offset and will be considered as additional to the block grant. This subcomponent will be managed at the federal level by the WDC to optimize study and design and

streamline resource allocation. Once detailed engineering designs are complete, regions may be delegated to provide oversight over implementation

36. This subcomponent will finance: (i) investment preparation (study and design); (ii) water source development (e.g., groundwater, springs, surface water storage); (iii) multi-village water conveyance and distribution systems; (iv) TA (capacity development at regional, zonal, and woreda levels as well as dedicated operators); (v) O&M structures (water board/utility); and (vi) M&E.

Subcomponent 4.C—Contingency Emergency Response Component (US$0 million)

37. This subcomponent includes a framework of activities to be considered under this window in case of emergency. Activities for this window will be dimensioned from the GoE's 2018 Humanitarian and Disaster Resilience Plan. This plan lays out a series of prevention and mitigation measures as well as preparedness and response and, if needed, emergency interventions (e.g., household water storage, household water treatment, procurement of equipment, etc.). The definition of triggers is dimensioned within the POM and will build upon existing systems to identify a series of long- and short-range multiple indices to identify droughts and floods and outline appropriate mitigation measures.

38. **Potential use of the CERC:** Additional funds from the CERC would be used to address emergencies that may disrupt the development program for water service delivery. Emergencies to be considered include:

(i) Droughts—leading to lack of water supply for human consumption and livestock

(ii) Floods—destruction, contamination, and limited access to water supply services

(iii) Water-borne disease outbreaks—localized epidemics related to consumption of contaminated water

39. **Triggers:** Several triggers are dimensioned into the POM, which include: (i) mitigation measures based on early warning information for activities upstream of declared emergencies; and (ii) emergency response measures.

40. The detailed arrangements for this component are under preparation and will be clarified when the design is completed. The detailed arrangements will be clarified in the design document (which will be part of the POM eventually) and agreed with the World Bank.

Component 5—Institutional Strengthening and Project Management (US$25 million equivalent of which US$21.4 million equivalent is from IDA financing)

41. **Activities will include:** (i) capacity building, financing of operating costs, and technical experts; (ii) Project management and coordination between implementing agencies; (iii) procurement and contract management to improve implementation of proposed infrastructure; (iv) FM; (v) operationalization of a sector MIS; (iv) application of environmental and social safeguard instruments and compliance; and (v) knowledge management and experience sharing. Revision and updating of technical guidelines and manuals including capacity building for staff and facilitators will be carried out to align with agreed changes in implementation modalities. Details and implementation modalities can be found in the POM.

Subcomponent 5.A—Operationalization of a Sector MIS (US$5 million of which US$4.29 million equivalent is from IDA financing)

42. **This subcomponent will support the improvement of M&E systems and activities intended to lay the foundation for a shift to results-based approaches in subsequent operations**. It builds on the ongoing TA and financial support provided by CWA DPs (DFID and AfDB) that are financing the second National WASH Inventory, development of the MIS, and procurement of monitoring equipment. It will focus on the institutionalization and improvement of the National WASH Inventory and MIS. It will finance TA and procurement of goods and services to: (i) train, equip, and support M&E staff at regional and local levels; (ii) introduce remote sensing systems and

applications; (iii) further improve the system to realize real-time monitoring; and (iv) bring successful global experiences with information systems for the management of rural water supply schemes to Ethiopia.

Subcomponent 5.B—Institutional Strengthening and Project Management (US$20 million of which US$17.14 million equivalent is from IDA financing)

43. **This subcomponent will support federal, regional, and woreda implementing agencies to manage and supervise the proposed activities effectively.** It will finance TA, procurement of goods and services, training and operating costs, including: (i) capacity building and financing of additional implementation support, technical experts, and equipment; (ii) Project management and coordination between implementing agencies; (iii) procurement and contract management; (iv) FM; (v) application of environmental and social safeguard instruments; and (vi) knowledge management and experience sharing.

ANNEX 3: Economic and Financial Analysis

1. **This Project will provide safe WSS services and promote hygienic practices to approximately 3 million people in newly selected areas across the country, of which 2 million live in rural areas and 1 million live in small- and medium-sized towns.** The Project will prioritize interventions in communities with low service coverage and high rates of diarrhea and child stunting in water-stressed, drought-prone, and flood-prone areas. In most cases, unserved households represent the poorest and most vulnerable[46] and are frequently affected by emergencies caused by climate shocks. Beneficiaries will also include users of health and education facilities without adequate WSS services. In addition, regional-, zonal-, and woreda-level governments; urban water service providers; and private actors will benefit from institutional strengthening, capacity building, operational efficiency improvement, and income generation interventions supported by the Project.

2. **The Project will promote "nutrition-sensitive"[47] interventions by targeting geographical areas where stunting (a proxy indicator for chronic undernutrition) and excreta- and water-borne diseases are most prevalent.** Interventions will complement the National Nutrition Program by increasing access to safe WSS services; providing advanced water supply, sanitation, and hygiene (WASH) packages in schools and health facilities; and promoting key hygiene behaviors at health facilities and schools, and among households.

Financial and Economic Analysis

3. **Methodology:** A cost-benefit analysis assesses the financial and economic viability of the Project's interventions by calculating the NPV of cost and benefit streams and by determining the financial and EIRR. Alternative scenarios—with the Project, and without—help identify the incremental costs and benefits of the Project. A discounted cash flow method is adopted, where net incremental benefits are obtained by subtracting cost streams from benefit streams year by year and these are then discounted.

4. **Scope and limitations:** Separate analyses were conducted for interventions in rural water supply, planned under Components 1 and 4, and in urban water supply (small and medium-sized towns) planned under Component 2. These components and subcomponents account for about 70 percent of the total Project cost. The analysis has to be interpreted taking into account the following limitations: (i) in the absence of reliable and actual local data, estimates from global and regional studies are used; (ii) as a framework Project, the analysis is based on potential scheme types and sample towns rather than the actual subprojects; (iii) the analysis is not disaggregated by subcomponent and does not show returns by subcomponent; and (iv) due to lack of reliable baseline data and information on major variables, various potential economic benefits are excluded from the economic analysis.

Rural Water Supply

5. **Cost:** This analysis covers some 8,260 rural water supply schemes to be constructed under Components 1 and 4. The cost of these two components is estimated at US$175 million, about 50 percent of the total Project cost. The

[46] Children in poor households are up to 2.7 times more likely to be underweight and five times more likely to be severely underweight. Overlapping vulnerabilities substantially modify the impact of WASH investments. Children in poor households have higher exposure and susceptibility than children in rich households, with the bottom 40th percentile of the wealth distribution having approximately 50 percent of the cumulative share of the susceptibility and risk (Ethiopia WASH Poverty Diagnostic).

[47] A 2013 Lancet Nutrition Series demonstrated that "implementing large-scale, proven, nutrition-specific interventions alone will only reduce under-five stunting by 20 percent" (Bhutta et al., "Evidence-based Interventions for Improvement of Maternal and Child Nutrition: What Can Be Done and at What Cost?" *Maternal and Child Nutrition* 382, No. 9890 (2013): 452–77, https://www.thelancet.com/series/maternal-and-child-nutrition). "The remaining 80 percent should be tackled by nutrition-sensitive actions, one of which is WASH—water, sanitation and hygiene."

total cost consisting of resources required to plan, implement, operate, and maintain the schemes is considered for the analysis. The average unit costs of the potential technological options have been established based on a review of over 2,300 (completed and ongoing) contracts obtained from the contract registers of the regions. The estimated unit costs are within a reasonable range of the unit costs used by national program documents (OWNP Phase II and GTP II). From experience, the cost of study, design, and supervision is estimated at 7.5 percent of the value of actual construction contracts (drilling, civil work, pipe laying, and electromechanical works). Operation and maintenance (O&M) are expected to be covered by rural communities through user fees sufficient to cover the O&M costs associated with their systems, which vary depending on the type of technologies involved.

6. **Benefits:** The proposed Project is expected to have several social, environmental, and economic benefits. However, the economic analysis has been limited to the economic benefits from time saved in fetching water and the potential health benefits from reduction in the incidence and prevalence of diarrhea. An average number of beneficiaries as per GTP II standards is considered in the analysis.[48] However, in cases where GTP II standards are not established (in small, medium, and large rural piped schemes) the average number of beneficiaries obtained from the ongoing Water Supply, Sanitation, and Hygiene (WASHP, P133591) and the OWNP Phase II program documents are used. Table A3.1 presents the estimated cost and number of beneficiaries per type of scheme.

Table A3.1: Average Cost and Beneficiaries, by Type of Scheme

Type of Water Supply Scheme	Number of Contracts Reviewed	Average Cost (US$)	Average Beneficiaries
Hand-dug well	976	3,170	156
On spot spring	1,006	3,240	198
Shallow well with hand pump	69.00	10,260	266
Rural piped scheme–large	28.00	913,520	7,927
Rural piped scheme–medium	57.00	364,370	3,629
Rural piped scheme–small	264.00	211,460	1,742

7. **The analysis is modeled over a 10-year period (2019–28) for point source schemes and over a 15-year period (2019–33) for RPSs**. Cash flows are discounted at 10 percent, a proxy for the opportunity cost of capital. Separate analyses are carried out for each type of technology utilized and combined to evaluate the economic viability of all technologies.

8. **Assumptions:** As has been noted, the Project selected woredas that have low service coverage, a high prevalence of diarrhea and stunting, and are in water-stressed areas prone to drought and flooding. Also, it is assumed that:

(i) The U.S. dollar is the currency used in all the analysis, and the average exchange rate for the month of July 2018 (US$1 = Ethiopian Birr [ETB] 27.2623) is used to convert values in ETB.

[48] GTP II standards and targets for WSS are used: (i) **Rural:** Minimum service level of 25 liters/per capita/day (l/c/d) within a radius of 1 kilometer from the water delivery point for 85 percent of the rural population; and (ii) **Urban:** minimum service level of 60 l/c/d and 50 l/c/d up to the premises for category 3 and category 4 towns/cities, respectively, and 40 l/c/d for category 5 towns/cities within 250 meters of the piped system for 75 percent of the urban population.

(ii) Rural households covered under the Project are expected to benefit from reduced time spent fetching water, from an average of two hours per trip[49] to 30 minutes as per the GTP II standard; a minimum of three round trips are assumed per day per household.

(iii) The time savings are assumed to be the same across all types of rural water supply schemes. To calculate the potential additional income from time saved fetching water, it is estimated that (i) ETB 50 is the daily wage rate for unskilled labor (US$0.23 per hour), and (ii) only 50 percent of time saved will be used on productive activities and the remaining will be spent on family and leisure activities.

(iv) The provision of improved WASH services is conservatively estimated to reduce the prevalence of diarrhea in beneficiary communities by an average of 10 percent, which is on the low side of global estimates.[50]

(v) Per capita health spending per child under five years was estimated at US$16 of which 48 percent (or US$7.86) is out-of-pocket expenditure by households (GoE MoH: Ethiopia's Fifth National Health Account 2011).

(vi) An 11 percent annual inflation rate (an average of 10 years) is used to adjust the actual contract value to the current value of contracts.

(vii) A 10 percent discount rate is used in the analysis.

9. **The rural water supply component is economically viable for all types of technologies and in aggregate for rural water supply schemes as measured by the economic NPV and EIRR.** The cost-benefit ratio for investments in rural water supply is 1.17. This analysis is more conservative than the findings of a global study (Hutton 2015) on the costs and benefits of achieving the post-2015 targets (SDGs for 2030, 2015) for household WASH.[51] This could result from higher per capita costs and the exclusion of potential economic befits from the analysis due to lack of data. Other nontangible benefits such as those from improved water quality and service sustainability were not factored into the analysis. As shown in Table A3.2, the per capita cost increases with the complexity of the technology type and the return of investment decreases.

[49] For rural households, traveling times to the nearest water source are substantial—about 56 percent of rural households had to travel less than an hour, but a large share (37 percent) had to travel between 1.0 and 2.5 hours, and about 15 percent had to travel even longer to fetch water (Ethiopia Time Use Survey, CSA, December 2014).

[50] Reduction in incidence of diarrheal disease compared with unimproved coverage is estimated to be 34 percent for an improved community water source, 28 percent for improved on-site sanitation, 40 percent for handwashing with soap, 60 percent for combined basic WASH, and 80 percent for safe WASH. Data on water and sanitation are from J. Wolf et al., "Assessing the Impact of Drinking Water and Sanitation on Diarrhoeal Disease in Low- and Middle-Income Settings: Systematic Review and Meta-Regression," *Tropical Medicine & International Health* 19, no. 8 (2014): 928–42, https://www.ncbi.nlm.nih.gov/pubmed/24811732; on handwashing with soap from M. C. Freeman et al., "Hygiene and Health: Systematic Review of Handwashing Practices Worldwide and Update of Health Effects," *Tropical Medicine & International Health* 19, no. 8 (2014): 906–16, https://www.ncbi.nlm.nih.gov/pubmed/24889816. Estimates for basic WASH and safe WASH are based on combining individual services.

[51] According to Guy Hutton, a dollar spent globally on basic WASH will provide in return US$3.50, US$2.60, and US$4.20 for WASH, respectively.

Table A3.2: Summary of NPV and EIRR by Type of Water Supply Technology

Type of Water Supply Technology	NPV	EIRR	Capita Cost (US$)
Hand-dug well	US$18.83	131.6%	US$20.32
On-spot spring development	US$28.27	183.9%	US$16.36
Shallow well with hand pump	US$9.86	37.4%	US$38.57
Other on-spot water source development	US$4.82	37.4%	US$26.81
Rural piped system–large	US$9.57	15.9%	US$115.24
Rural piped system–medium	US$11.50	18.7%	US$100.41
Rural piped system–small	US$0.44	10.4%	US$121.39
Total	US$63.25	24.2%	

10. **Areas of improvement that could be addressed to achieve potential economic and financial benefits:** The limited implementation capacity of drillers, insufficient follow-up and supervision capacity at the local level, limited public awareness of the benefits of improved sanitation, and poor management practices are potential risks that could affect the Project's implementation and the realization of its expected benefits. Delays in implementation, cost overruns, underutilization of facilities, and reduction in Project benefits are potential effects of these risks. The resilience of the rural component in the face of these risks is assessed by switching the values of the costs and benefits of the Project. As shown in Table A3.3, for the NPV to drop to zero or the EIRR to be equal to the discount rate, either the investment cost must increase by about 24 percent or the benefit must decline by about 19 percent. However, various combinations of cost increases and revenue reductions will more quickly push the NPV to zero. Zonal-level program follow-up structures, the provision of tailored support to emerging regions, as well as CFTs are built into the Project's design to enhance implementation capacity and mitigate these risks.

Table A3.3: Risks and Switching Value Analysis

Scenario	Potential Risk	Impacts	Change Required from Base Case for NPV to be Zero and EIRR = Discount Rate
1	Limited implementation capacity of drillers and weak local capacity to monitor and supervise, resulting in increased cost	Cost overrun	24 percent increase in cost
2	Limited awareness by beneficiaries, and reluctance to construct and use improved latrine	Revenue decline over the life of the analysis	19 percent decline in revenue

Urban Water Supply

11. **The Project is a framework; the actual number of towns and specific interventions to be financed will depend on a set of selection and readiness criteria and the availability of Project resources.** Some 180 selected towns will be **supported** with institutional development, capacity building, and TA to prepare for investment. Towns will be prioritized for infrastructure investment financing, upon meeting the readiness criteria, resource availability and demonstrating adequate capacity to manage the service. The towns that, after meeting readiness criteria and demonstrating their capacity, do not receive financing support through the Project due to lack of funds, are expected to be financed from other sources or in subsequent interventions. The specific Project interventions will be

determined based on detailed design and feasibility studies to be conducted for each town. For purposes of this analysis, a sample of small towns is considered.

12. **A cost-benefit analysis is used to assess the financial and economic viability of the urban water supply and its sensitivity to key variables.** With- and without-Project scenarios are defined to identify the incremental costs and benefits of the Project. Benefits and costs are projected over a period of 20 years (2019–38) starting from the first year of the Project in 2019 and including a five-year construction period. While a discount rate of 10 percent is used for the financial analysis, based on the Technical Note on Discounting Costs and Benefits in Economic Analysis of World Bank Projects issued by the World Bank, cash flows are discounted at 6 percent.[52]

13. **Cost estimation:** The total investment cost for small towns—including capacity building, infrastructure development, and operational efficiency interventions—is estimated at US$68.25 million. It is assumed to be spent over a five-year period and an average production cost of ETB 4.36 per cubic meter (m^3) was used to develop the cost stream in the analysis.

14. **Benefit estimation:** The Project is expected to benefit about 615,000 residents. An average tariff rate of ETB 5.93/cubic meter,[53] which is assumed to increase every five years, is used to estimate revenue from sales of water.

15. **In the financial analysis only, the operational revenues from the sale of water and connection fees are considered.** The analysis calculated the difference in revenues between the with- and without-Project scenarios. The additional with-Project revenues were assumed to be generated from additional household connections and sales of water. Nonrevenue water is assumed to be 39 percent at the base year and expected to be reduced to 15 percent at the end of the Project period.

16. **In the economic analysis, after taxes are omitted on the operational revenue from the sale of water and connection fees, the following economic benefits expected to accrue from the Project**, which can be quantified, are included in the analysis:

    (i) *Increased household income due to time saved from fetching water.* It is assumed that about 30 minutes spent for a round trip to fetch water (including waiting time) without the Project, will be reduced to 15 minutes with the Project.[54]

    (ii) *Increased income gained because of reduced absenteeism of the working-age population and caretakers due to reductions in diarrheal illness among children and adults.* It is assumed that only 50 percent of the saved time will be used productively and a minimum wage rate of US$1.83/day (US$0.23/hour)[55] is used to calculate income gained due to the Project.

    (iii) *Reduced household health-related expenditure resulting from a decrease in diarrheal disease.*

17. **The financial and economic returns as measured by the NPV and EIRR are summarized in Table A3.4.** The results show that the urban water supply component is economically viable, with positive economic NPV and EIRR greater than the discount rate. However, for the financial analysis, the NPV is negative and the EIRR is less than the discount rate. For the financial NPV to be positive the investment and operational costs must be reduced, or the current

[52] In the note it is suggested that in a situation where country-specific growth projections are not available, analysts might use 3 percent as a rough estimate of the expected long-term growth rate in low- and middle-income countries. Given reasonable parameters for the other variables in the standard Ramsey formula, this yields a discount rate of 6 percent.
[53] This tariff rate requires a poor household with five family members to pay ETB 35 birr per month for 6 m^3 of water at 40 l/c/day, which is about 3.3 percent of daily wages and under the 5 percent affordability threshold.
[54] About 84 percent of urban households have to travel less than an hour to obtain water; about 17 percent have to travel between 1 and 2.5 hours. As per the GTP II standards a household with five family members needs 200 liters per day.
[55] A daily wage rate of ETB 50 for unskilled labor in small towns is considered.

tariff must increase to ETB 13/m^3, which could be unaffordable for the poor (more than 5 percent of disposable income).

Table A3.4: Summary of NPV and EIRR for Small Towns

No.	Scenario	NPV (US$ million)	IRR (%)
1	Financial base case	-33.3	0.03
2	Economic base case	50.9	26.8

18. **As per the actual revenue and expenditure data collected, utilities in the sample small-sized towns can fully cover their operational expenses with an average operational coverage ratio of 1.12.** The surplus generated by these small-scale service providers, however, remains very low and inadequate to finance any large-scale maintenance and expansion of services by themselves. Hence, federal and regional governments and city administrations need to subsidize the utilities providing the financing for the Project in the form of fiscal transfers (block grants). This finding signals the need to rigorously review technical and operational designs presented by each town before selecting them for investment. This would help to control unnecessary costs due to overdesign. Also, it is important to closely follow up on contract management to avoid potential delays in implementation and subsequent cost overruns.

19. **The Project will support water utilities to improve their customer and revenue bases.** Interventions to enhance operational efficiency are expected to help utilities increase their revenue base and reduce government contributions to investments and O&M. Furthermore, complementary interventions—including increased access to improved sanitation and promotion of healthy, hygienic practices—are essential to maximize the economic benefits of the Project.

20. **Medium-sized towns will be financed with government loans granted through the WRDF as well as contributions from the respective regions, city administrations, and utilities.** The agreed terms and conditions of the loans are: 3 percent interest rate, 5-year grace period, and a 25- to 30-year payment period. The WRDF will conduct rigorous technical and financial appraisals to determine the loan amount that a town is able to borrow. Accordingly, the reliability and consistency of technical and financial assumptions; the adequacy of risk assessment and identified mitigation measures; a comparison of cost estimates and infrastructure size against effective demand and optimum utilization; the adequacy of the technical options considered, including the potential for phasing investment; financial sustainability, including the creditworthiness of the utility, the tariff structure, and customers' ability and willingness to pay; cash flow requirements; and O&M coverage will be analyzed. Loans will be complemented from revenue generated from the utility and matching grants from the regional and municipal governments.

21. **A GHG analysis estimated the net emissions over the Project's 25-year economic lifetime to be 4,753 tonnes of carbon dioxide equivalent (tCO_2-eq) and the average annual emissions to be 189 tCO_2-eq.** The gross lifetime emissions are 257,522 tCO_2-eq. The rural piped-water supply systems under Subcomponent 1.A have estimated net emissions of 4,061 tCO_2-eq due to electricity use, though this subcomponent also locks in several zero-emission systems—including on-spot springs, boreholes with hand pumps, and rainwater harvesting—that ensure beneficiaries will not seek more emissive forms of water collection. The urban water supply systems under Component 2 have estimated net emissions of 1,442 tCO_2-eq from water supply expansion, but also net emissions of -88 tCO_2-eq due to energy-efficiency gains as a result of nonrevenue water being reduced from 39 percent to 15 percent. The fecal sludge management activities under Component 2 see net emissions of -662 tCO_2-eq, which is

broken up into 26 tCO_2-eq due to the use of collection trucks and -687 tCO_2-eq from the daily removal of some fecal sludge from latrines and septic systems.

22. **The global cost of increased GHG emissions due to the Project is estimated using the Social Values of Carbon recommended for World Bank Group projects.**[56] The net shadow monetary value is added to the Project's incremental financial cash flows and the EIRR is recalculated. When the carbon shadow pricing is considered, the NPV for small towns is reduced by US$0.29 million for the upper-bound price and US$0.15 million for the lower-bound price, while for rural water supply the reduction is only US$0.11 million for the upper-bound price and US$0.05 million for the lower-bound price.

23. **By strengthening the planning and monitoring of water resources, the Project is expected to increase the availability of and access to reliable information on weather, climate, and water resources, and enhance the national capacity for regular forecasting and an early warning system.**[57] In addition to informing the design of water supply schemes, these interventions have significant socioeconomic benefits resulting from informed decisions by households, organizations, businesses, and governments to mitigate the impact and reduce losses from droughts and flood events. Global studies have shown that the informed use of meteorological, hydrological, oceanographic, and related information can deliver enormous socioeconomic benefits to society.[58] However, these socioeconomic benefits are not captured in the economic analysis due to lack of adequate and reliable information.

24. **Financial analysis:** The Government has adopted a policy of gradual, full cost-recovery for urban water supply systems and recovery of O&M expenses for rural communities, so that investments in water supply can be sustainable. The Project will assist the GoE in providing safe water to households, promoting gradual cost recovery over time, creating an enabling environment including capacity building and decentralized management of water supply operations, and setting up autonomous water utilities and private companies run on a commercial basis. The performance-based stepped approach focuses on capacity building, involvement of beneficiaries in the choice of affordable technologies, per capita ceilings on grants, a creditworthiness test for sub-loans, and the subproject-based analysis, which are major instruments to ensure the financial sustainability of the Project-financed investments.

25. **The Project is expected to reduce government contributions to investment and O&M costs** by: (i) providing beneficiaries with affordable technology choices, improved design, and implementation capacity for cost-effective systems; and (ii) enabling increased user contributions to investment and operating costs for the increased lifespan of WASH facilities.

OWNP-CWA Phase II Costing Exercise

26. **Experience from the OWNP-CWA Phase I has shown the need to carefully conduct a costing exercise to minimize potential restructuring resulting from a financing gap and unrealized results created during implementation.** To avoid that, a detailed costing exercise was conducted for preparation of the OWNP-CWA Phase II that has been used for the preparation of this Project.

[56] A lower bound of US$40 and an upper bound of US$80 per ton of CO_2-eq in 2020 will rise to US$78 and US$156, respectively, in 2050.
[57] Ana Law in 2012 estimated the socioeconomic benefits of Ethiopia's national drought early warning and response system using cost-benefit analysis to quantify avoided livelihood losses for households and decreased assistance costs associated with the Livelihood Early Assessment and Protection Project (LEAP). Over a 20-year period, she estimated benefit-cost ratios that range from 3:1 to 6:1**.**
[58] Review of more than 140 economic valuation studies have found out that the benefit-cost ratio for hydromet services ranges from 2:1 to 36:1 (World Bank Group, Global Facility for Disaster Reduction and Recovery, and United States Agency for International Development, *Valuing Weather and Climate: Economic Assessment of Meteorological and Hydrological Services*, WMO-No.1153 [Switzerland: World Meteorological Organization, 2015]).

27. **Unit cost:** The maximum, minimum, average, and median unit cost for provision of WASH facilities is computed from actual values of over 2,500 completed and ongoing contracts. Contract values are adjusted for 11 percent annual inflation to reflect the current contract prices. Contract samples were obtained from big regions (Amhara, Oromia, and Southern Nations, Nationalities, and Peoples) as well as arid and semi-arid regions (Afar and Ethiopian Somali regions) to capture hydrological and regional variations in the unit costs. After triangulating with the OWNP Phase II program data and the unit costs used by regions during the preparation of additional financing, the average unit costs indicated in Table A3.5 are used.

Table A3.5: Average cost of WASH Facilities

	Type of Water Supply Scheme	# of Contracts Reviewed	Min (in US$)	Max (in US$)	Average (in US$)	Median (in US$)
1	Hand-dug well	976	2,300	3,840	3,170	3,230
2	On-spot spring	1,006	890	6,820	3,240	3,300
3	Shallow well with hand pump	69.00	7,800	13,850	10,260	9,900
4	Borehole	113.00	79,690	290,730	134,660	128,060
5	Haffir dam	5.00	533,020	1,181,640	801,940	566,230
6	Rural piped system–large	28.00	525,370	3,557,600	913,520	696,710
7	Rural piped system–medium	57.00	300,450	486,100	364,370	359,850
8	Rural piped system–small	264.00	121,510	299,500	211,460	209,410
	Small town water supply system construction + source development	63.00	312,190	608,930	911,450	345,680
9	WASH package for schools	152.00	9,970	35,780	23,840	16,100
	Construction of school water supply facility	80.00	4,830	11,420	7,460	6,990
	Improved latrine facility for schools	83.00	5,140	24,370	10,570	9,110
	MHM room construction	-	-	-	5,820	-
	Rehabilitation of latrine facilities		740	18,320	5,520	-
	Rehabilitation of water supply facilities		1,290	1,290	1,290	-
10	WASH package for health facilities		22,060	45,450	29,330	-
	Construction of water supply facility		10,990	10,990	10,990	-
	Improved latrine facility		7,600	20,150	11,560	-
	Incinerator		1,840	5,500	2,960	-
	Placenta pit		1,100	6,050	2,280	-
	Waste disposal pit		550	2,790	1,550	-
	Rehabilitation of latrine facilities		740	18,320	5,510	-
	Rehabilitation of water supply facilities		1,290	1,290	1,290	-

28. **Woredas covered:** The number of woredas to be covered under the rural WASH component depends on the resource envelope assigned for the rural WASH Component and the scheme mix defined for a typical woreda.

29. **Beneficiaries:** To estimate the number of beneficiaries of an improved rural water supply service, the actual and average number of beneficiaries per scheme constructed during the OWNP-CWA Phase I is used. As stated in Table A3.6, the consistency of estimated beneficiaries per scheme has been checked through triangulation with GTP I and II national standards as well as the OWNP Phase II document. In estimating beneficiaries in small towns, 75 percent of the estimated population of a small town as per the GTP II standard is considered.

Table A3.6: Estimated beneficiaries per type of water supply scheme

Type of Water Supply Scheme	Estimated from Actual Number per scheme	GTP I Standard	GTP II Standard	OWNP Phase II
Hand dug well	156	270	160	171
On spot spring	198	338	200	242
Shallow well with hand pump	266	**425**	**250**	271
Haffir dam	NA	NA	NA	609
Rural piped systems		2,500–5,000	1,500–3,000	
Rural piped system–large	7,927			8,788
Rural piped system–medium	3,629			3,473
Rural piped system–small	1,742			1,476

30. **Scheme mix:** The scheme mix for a typical woreda was established (i) considering the priorities of the GoE in relation to climate-resilient water supply technologies, (ii) allowing significant expansion of WASH coverage within a woreda to address wider communities and institutions, (iii) providing a complete WASH package for institutions (schools and health facilities), and (iv) with consideration of hydrological conditions in arid and semi-arid areas. Multi-village/woreda RPSs disaggregated by the size of schemes (large, medium, and small)[59] are considered relevant technologies for resilient WASH.

31. **The current rural water supply coverage is 53 percent**, as per the GTP II standard.[60] To achieve the GTP II target of 85 percent rural water supply coverage, the Project should provide access to at least 35,000 people per woreda,[61] which requires the construction and rehabilitation of more than 200 schemes per woreda. With this assumption, the available resource envelope for rural WASH would cover only 48 woredas. To maximize the number of woredas, three possible financing scenarios and a well-rounded mix of schemes were considered. Considering progress toward meeting the GTP II targets and expanding coverage among woredas, the task team considers Scenario 2 from the following three scenarios. Based on Scenario 2, the Project is expected to cover 116 woredas under Component 1—Rural WASH. In addition, 50 out of the 192 eligible woredas were ranked as priority woredas to access finance from Component 4—Climate-Resilient WASH, based on the resource envelope and

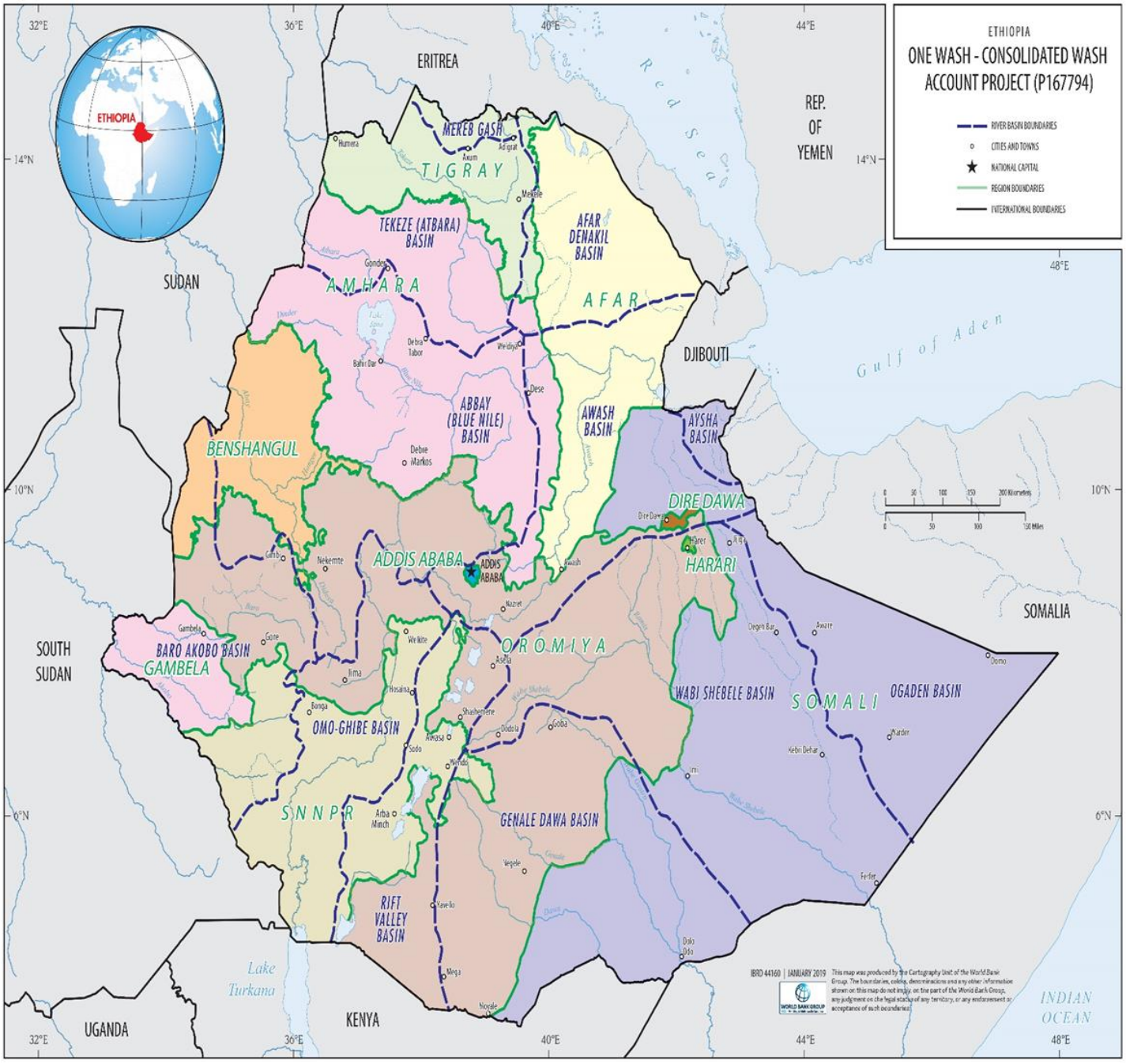
[59] Large, medium, and small multi village (MV)/woreda RPSs are determined based on the number of beneficiaries and number of water points constructed: (i) small MV RPS—up to 2 water points serving up to 1,750 beneficiaries and cost of construction is below US$0.3 million; (ii) medium MV RPS—4–6 water points, up to 3,600 beneficiaries, and cost of construction between US$0.3 and US$0.5 million; (iii) large MV RPS—6–10 water points, up to 8,500 beneficiaries, and cost of construction is over US$0.5 million.
[60] Computed from a compiled baseline report from regions.
[61] This is calculated assuming an average woreda population size of 110,000 based on an average population for 754 woredas covered under the baseline assessment and a 47 percent service coverage gap.

suggested scheme mix. Together, Components 1 and 4, the Project is expected to finance infrastructure investments in rural water supply in a total of 166 woredas.

32. **Towns covered[62]:** The Project will follow a stepped approach whereby some 180 small- and medium-sized towns will receive initial support to strengthen their institutional and operational capacity and only those towns that meet readiness criteria and demonstrate adequate capacity will receive financing for investment based on the proportion of resources allocated for step 1, capacity-building activities and unit costs estimated for expansion of town water supply services, an estimated number of up to 55 towns will receive financing for investment. Additional towns could be selected based on regional governments' priorities and agreed Project selection and readiness criteria.

[62] The actual number of towns and woredas to be financed under the Project will be determined once the woreda selection exercise is completed by the regions

ANNEX 4: Map


ETHIOPIA
ONE WASH - CONSOLIDATED WASH ACCOUNT PROJECT (P167794)
RIVER BASIN BOUNDARIES
CITIES AND TOWNS
NATIONAL CAPITAL
REGION BOUNDARIES
INTERNATIONAL BOUNDARIES
ERITREA
REP. OF YEMEN
SUDAN
DJIBOUTI
SOMALIA
SOUTH SUDAN
UGANDA
KENYA
Gulf of Aden
INDIAN OCEAN
Lake Turkana
MEREB GASH
TIGRAY
TEKEZE (ATBARA) BASIN
AFAR DENAKIL BASIN
AMHARA
AFAR
ABBAY (BLUE NILE) BASIN
AWASH BASIN
AYSHA BASIN
BENSHANGUL
DIRE DAWA
ADDIS ABABA
HARARI
OROMIYA
BARO AKOBO BASIN GAMBELA
WABI SHEBELE BASIN
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