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Strengthening Climate Resilient Systems for Water, Sanitation and Hygiene services in Ethiopia

Geography: Ethiopia: Afar, SNNPR, Amhara, Gambella and Somali, Oromiya and Tigray.

Adaptation measures: The project is working to develop climate-resilient WaSH facilities for year-round access to services in targeted drought/flood-prone and water-stressed areas in the most vulnerable states, including during extreme events. The services are delivered by rural village management units and urban utilities through efficient and self-sustained systems.

Key outcomes: The project aims to establish building blocks for transformational change in the delivery of WaSH services. It expects to provide improved access to climate-resilient water and sanitation services and good hygiene practices for 1.2 million people in areas affected by climate extremes.

At the end of 2020, some of the project's achievements include: six climate-resilient water supply schemes were designed and moving into the implementation phase, with capacity to serve 20-30,000 people each; nearly 7,000 ministry and community experts had been trained in climate-resilient WaSH, supporting behavioral change and capacity building; and about 154,000 new and 23,000 rehabilitated latrines had been constructed.

Partners and funding: The five-years program (2019-2024) received £95 million UK funding. Other contributors to the overall program include World Bank, AfDB, UNICEF, Saudi Fund for Development, Finland, South Korea, and Netherlands.

PROJECT SUMMARY

Extreme climate-related disasters have been common across Ethiopia for decades and are expected to increase. At least 15 major droughts and five major floods in the last 50 years have had devastating consequences. More than 80 million people have been affected by these droughts,[1,2] which have particularly impacted the poorest and most vulnerable communities, and climate projections indicate worsening trends. For example, an already high variability in year-to-year precipitation (with differences between 28 and 62 percent in annual mean rainfall between dry and wet years)[3] is projected to be combined with an increased share of total rainfall during "heavy" events (up to 18 percent) by 2050.[4] Furthermore, the number of poor people exposed to floods will increase nationwide by 12 percent by 2050 (this figure masks expected regional differences).[5]

The SCRS-WASH project is responding to climate threats with new and rehabilitated climate-resilient WaSH services for year-round access, such as at the household, community and institutional levels, including WaSH for households, schools and health facilities in drought-affected and remote areas (Afar, SNNPR, Amhara, Gambella and Somali States).[6]

Measures such as deeper boreholes and piped networks will ensure service provision under scenarios of increased climate variability, protect the water resource base and mitigate costs for relief operations. Where possible, WaSH services have been set up to depend on groundwater sources, which are better able than surface sources to secure the supply under climate extremes. When surface water supply is the only available option, services can be complemented with water treatment plants to address high-fluoride and salinity issues. The sustainability of the system will be supported by developing local maintenance providers, providing technical support, and addressing institutional capacity gaps.

WaSH investments are key to supporting the most vulnerable in Ethiopia. Diarrheal disease causes 15 percent of post-neonatal deaths and 13 percent of deaths among children aged 1-4 years in the country. Climate change threatens to further increase this child mortality, as diarrheal disease outbreaks are exacerbated during periods of flooding.[7] Furthermore, carrying water, especially by children, causes musculoskeletal strain and can lead to debilitating pain and disability.[8]

The project contributed to the outcomes achievement of the Government of Ethiopia's flagship One WaSH National Program (OWNP). Climate Resilient WaSH is one of the program's five pillars. The project brings together government ministries, research and academia, development partners and civil society; and its implementation has provided lessons that can be applied at a larger scale. For example, lessons from early project actions for water provision led to a plan for a groundwater mapping assessment to identify potential groundwater source areas, since they are more resilient to climate extremes than areas supplied by surface sources.

The project puts an emphasis on groups that are disproportionately vulnerable to poor WaSH. For example, women and youth groups were empowered to engage in spare part supply and service maintenance to support the service delivery systems. They were also engaged in producing locally manufactured reusable menstrual hygiene products and building inclusive WaSH facilities. Future climate-resilient WaSH investments are expected to result in more inclusive job creation and increased labor productivity and domestic manufacturing.

WaSH IN ETHIOPIA ENDNOTES

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5. Compared with 1980 under a 5 GCM ensemble under a high-emission scenario (RCP 8.5). It is worth noting that Ethiopia's current poverty exposure bias (0.67) indicates a significant larger fraction of poor households exposed to droughts.
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