



Project Information Document (PID)

Concept Stage | Date Prepared/Updated: 12-Mar-2021 | Report No: PIDC31687

**BASIC INFORMATION****A. Basic Project Data**

Country Eastern Africa	Project ID P176607	Parent Project ID (if any)	Project Name GEF SUSTAINABLE GROUNDWATER MANAGEMENT IN SADC MEMBER STATES PROJECT PHASE 2 (P176607)
Region AFRICA EAST	Estimated Appraisal Date Feb 01, 2022	Estimated Board Date Mar 31, 2022	Practice Area (Lead) Water
Financing Instrument Investment Project Financing	Borrower(s) The Secretariat of the Southern African Development Community (SADC)	Implementing Agency SADC-Groundwater Management Institute (SADC-GMI)	GEF Focal Area International waters

Proposed Development Objective(s)

The Project Development Objective is to develop capacity and knowledge for inclusive groundwater management in the SADC region at the national and transboundary levels.

PROJECT FINANCING DATA (US\$, Millions)**SUMMARY**

Total Project Cost	4.57
Total Financing	4.57
of which IBRD/IDA	0.00
Financing Gap	0.00

DETAILS**Non-World Bank Group Financing**

Trust Funds	4.57
Global Environment Facility (GEF)	4.57



Environmental and Social Risk Classification

Moderate

Concept Review Decision

Other Decision (as needed)

B. Introduction and Context

Regional Context

The Southern African Development Community (SADC) is committed to addressing its developmental challenges, including poverty, high inequality, low human capital, and, critically, the impacts of climate change. The SADC Region comprises 16-member states with a total population of roughly 345 million and a population growth rate of about 2.9 percent, which is among the world's highest. Approximately 50 percent of the population is estimated to live on less than US\$ 1 per day. Poverty is prevalent in the Southern Africa region, especially amongst female-headed households, with malnutrition, gender inequalities, exploitation, marginalization, high morbidity, and HIV/AIDS are a few of the complex challenges contributing to poverty in the SADC region. Several SADC member states are categorized as Fragility-Conflict-Violence (FCV) countries as per World Bank's FY21 classification (Comoros, DRC, Mozambique and Zimbabwe). An assessment of the drought and water crisis in 2018 in the region indicates that the periodicity of very high precipitation deficits (close to 70-80 percent) has substantially increased, and precipitation deficits of almost 50-70 percent (during the rainy season) can occur with a periodicity of 5 years.

Already impacted by the severe droughts of 2016-2019, economies in the SADC regions are further contracting due to the Covid-19 pandemic. Average regional GDP growth has been slow since the global economic crisis of 2008. The COVID-19 pandemic and its associated public health and economic consequences have highlighted the stark realities regarding inequality in the access to potable water, sanitation and hygiene (WASH) facilities and water for livelihoods. Food insecurity is expected to increase dramatically because of currencies weakening, rising staple food prices, and disruptions to agri-food supply chains. To address these developmental challenges, water security is pivotal. Water is an indispensable basic need linked to the thriving of every sector in a country's economy for sustainable and inclusive economic growth, for accelerating job creation, reducing poverty and improving access to essential services and food security. Yet, water scarcity, which is exacerbated by climate change, droughts, poor planning and exploitation strategies and lack of regulation and enforcement of laws, severely impacts all these economic sectors.

As climate variability is affecting the availability of surface water, groundwater has become an indispensable source of water. It is a key source of reliable and safe water, which, in turn, allows improved hygiene practice and provides effective mitigation against the spreading of diseases, including COVID-19. To identify and pursue sustainable solutions for groundwater use and management, SADC member states have identified the need to improve their capacity and knowledge to better understand and cooperate on groundwater issues.

Women have a central place in the economic development of the region and are under-recognized managers of water. Even though women are the primary custodians and managers of water, they continue to be excluded from key decision-making processes in a sector where leadership remains predominantly male-dominated. Efforts will be taken to ensure



that gender is mainstreamed throughout the project cycle. It will also take into consideration the ongoing obstacles that women face including the fact that women remain disproportionately affected by water crises and are substantially under-represented in the professional water sphere where female professionals and leaders are still a minority.

Sectoral and Institutional Context

Water, including groundwater, is the most shared resource in the SADC region. More than 70 percent of the surface water resources are shared between two or more member states. The SADC region has 15 internationally shared rivers and an estimated 30 transboundary aquifers. Transboundary cooperation in water matters takes place within the framework of the SADC's "Revised Protocol on Shared Watercourses" (SADC, 2000), which is supported by an institutional framework for the management of river basins. There has been remarkable progress in establishing several transboundary institutions to facilitate sustainable and shared management of river basins

The SADC member states seek a concerted approach to strengthen capacity and knowledge around groundwater. The growing importance of groundwater for water security in the region prompts the need to effectively manage this valuable resource at the national and transboundary levels. Through an incrementally phased intervention and aligning with the vision and mandate, the SADC-GMI was set up in 2011 to strengthen national and transboundary institutions' ability to manage groundwater. SADC-GMI became operational in 2015, and it was approved as a subsidiarity institution within the SADC Secretariat in August 2018.

With support from the SADC-SGWMP, the SADC-GMI has successfully fulfilled capacity-building requests from member states and other stakeholders. 65 young professionals have benefited from the capacity building program through training and internships, of which 23 (about 1/3) were women. At the transboundary level, SADC-GMI signed memoranda of understanding (MOUs) with five River Basins Organizations. SADC-GMI has also developed and shared knowledge by developing the SADC Groundwater Information Portal (SADC-GIP) and the SADC Grey Literature Archive (SADC-GLA), among others. These interventions have contributed to the development of a framework for groundwater data collection and sharing for the region.

Alignment with Regional and GEF's Strategies

The project is well-aligned with the WBG Regional Integration Strategy for Africa, as highlighted in the analyses prepared for the WBG Africa Regional Integration Strategy Update FY21-23, primarily through Strategic Pillar 4: Reinforcing Resilience. This pillar directly responds to the WBG priorities for Protecting the Poor and Vulnerable and Strengthening Policies and Institutions. Proposed activities under Components 1 and 2 of the Project align closely to Focus area 4 under this pillar: Transboundary water and natural resource management. Component 1 will support River Basin Organizations (RBOs) and National Institutions to include groundwater planning in their programs and strategies and supports the SADC Member States in strengthening groundwater regulations to create the regional regulatory environment that enables sustainable groundwater management. Component 2 will promote knowledge generation and sharing on national and transboundary water resources, increase the use of groundwater information in planning at national and regional levels and guide the Member States and RBO's with groundwater assessments, the preparation of monitoring plans and the compilation of groundwater info. Component 1 also aims at building capacity for sustainable, inclusive and participatory groundwater management in transboundary and national institutions which aligns well with Focus Area 2 "Skills and capacity-building" of Strategic Pillar 3 which "Supports Human Capital Development". Finally, the proposed project also aligns with two other Focus Areas under Strategic Pillar 4 of the regional strategy: "Agropastoralism" and "Food security and climate change". Project Component 2 promotes the development of sector-specific knowledge products to guide and inform food production and pastoralism on groundwater availability and status.

The project aligns with the Objective 3 of the GEF-7 Programming Directions in regard to the International Waters -



Enhance water security in freshwater ecosystems, by focusing on the enhancing regional and national cooperation on shared freshwater surface and groundwater basins. The project's Development Objective of developing knowledge and capacity for inclusive groundwater management in the SADC region at national and transboundary levels and the project design address water security in freshwater ecosystems. The project components focus on 1) building capacity and promoting cooperation at national and regional levels, with a special focus on promoting and supporting conjunctive management of the TB groundwater and surface water resources in the regional RBOs. 2) generating knowledge on the regional groundwater resources and promoting dissemination and knowledge sharing by national and regional institutions, and 3) piloting investments supporting the sustainable and inclusive use of the regional groundwater resources. The project adds value with regards to the IW-3-5 priority through its activities under Component 2 aimed at capacity building of the SADC Groundwater Information Portal (GIP) and the SADC Groundwater Literature Archive (GLA) for data and information exchange. With regards to the IW-3-5 priority, Component 1 activities support the capacity of RBOs, National Focal Groups and National governments to effectively cooperate in national and transboundary water systems. Research on GW challenges and innovations supported under Component 2 also contributes to this priority. Component 3, dedicated to supporting innovative GW sub-grant pilot projects, will add value with regards to the IW-3-7 priority.

The project builds on the achievement of the ongoing SADC-SGWMP, which defines the baseline for the proposed project and takes into account the conclusions of the regional PLI Gap Analysis conducted by SADC-GMI in 2019. Based on the assessment of gaps in the capacity of key stakeholders in the SADC region, and of the adequacy and timeliness of the groundwater knowledge available to them, a program of activities has been designed structured around three main components: capacity, knowledge and building resilient livelihoods. Some of the successful activities under the ongoing project will be continued, other tasks that aim to address other identified gaps will be added. The proposed project will allow synergies with other financing that SADC-GMI may raise, including a potential direct additional financing of up to US\$ 9 million to this project from the World Bank-CIWA project. The project builds on these lessons to consolidate the SADC-GMI's role as a center of excellence on groundwater in the region and its ability to respond to the capacity and knowledge needs of the SADC Member States and regional institutions.

For the proposed project to be inclusive, social inclusion and gender equality will be mainstreamed. It will : i) take into account the needs and challenges of the poor and the vulnerable in relation to access and use of groundwater, and ii) promote diversity in the groundwater-related professions, including promoting education and professional development for youth and women. Efforts will be made to ensure that all activities associated with this project take into account and seek to accommodate gender differences in terms of roles and responsibilities related to water access, management and utilization as well to consider gender inequalities that exist in the region, including women's unequal access to decision-making processes related to water resource management.

Implementation Arrangements

The SADC Secretariat in Gaborone, Botswana, through the Directorate for Infrastructure and Services (Water Division), will be the custodian of the project and recipient of the Grant. The SADC-GMI will implement the project in synergy with several national and regional stakeholders. The program has a SADC wide regional footprint and is designed to contribute to the sustainable management of groundwater at multiple levels, ranging from local to regional. In this context, there are many beneficiaries, some deriving direct benefit from the project and its activities and others enjoying indirect benefits. In addition, donors and funders may be argued to benefit by extending their development agendas through their involvement with the program.

Coordination

The project will coordinate with the Sustainable Groundwater Management in SADC Member States Project financed



by CIWA and implemented by the World Bank, P175355, which is expected to be approved in June 2021 and which is the second stage of the ongoing SADC-SGWMP. The components under the proposed project are defined to allow synergies with the World Bank operation. Both projects will be using the same project implementation unit: SADC-GMI's, which has proven to be a center of excellence on groundwater in the region, able to respond to the capacity and knowledge needs of the SADC Member States and regional institutions.

Several IFI and donor-funded investments in the SADC countries address groundwater development. The team will collaborate with other IFIs at the country level to ensure coordination and synergy. That includes the UNESCO/Swiss Agency for Development and Cooperation through project Governance of Groundwater Resources in Transboundary Aquifers (GGRETA); the program supported by the African Ministerial Commission on Water (AMCOW) - Pan-African Groundwater Program (APAGroP); the project supported by the United States Agency for International Development Southern Africa (USAID) - Implementation of Big Data and Transboundary Water Cooperation; and the collaboration with the International Groundwater Resources Assessment Center (IGRAC) in relation to project activities to improve the functionality of real-time data. To the SADC-GIP.

C. Proposed Development Objective(s)

The Project Development Objective is to develop capacity and knowledge for inclusive groundwater management in the SADC region at the national and transboundary levels.

Key Results (From PCN)

The proposed project deepens and broadens the efforts to support the SADC Member States and Transboundary River Basin Organizations (RBOs) to operationalize advances in knowledge generation and dissemination, to institutionalize gains in the capacity at local, national and transboundary levels to manage groundwater resources sustainably and equitably as well as to develop infrastructure solutions based on broad-based and inclusive consultations that are ready to be scaled up through investment programs. Continued support for groundwater institutional development will lead to Improved groundwater management in the SADC region at the transboundary, national and local level which contributes to improved access to water and builds resilience against climate-induced shocks for sustainable livelihoods. Expected outcomes generated from the combined activities under each of the project components: improved and equitable capacity of key institutions to manage groundwater in the SADC region at the transboundary, national and local level, improved knowledge on the status of groundwater resources readily available and improved access to water of local communities contributing to improved livelihoods, increased economic opportunities and reduced vulnerability to climate-induced shocks that take into account the undue burden on women and other vulnerable populations.

D. Concept Description

Building on the achievements of the ongoing SADC-SGWMP and taking into account the lessons learned, the project will implement three components summarized below.

Components

Component 1. Institutional capacity building at national and regional level (US\$1.2 million). The focus will be on capacity to manage and regulate groundwater use including its sustainable management, groundwater planning, and groundwater regulation. The target is to establish and operationalize new NFGs in 8 of the 11 SADC states with no NFG. This will include Development of guidelines & tools for capacity building of RBOs to integrate GW; establishment & operationalization of GW Committees in the RBOs; preparation of Roadmaps and implementation of some action plans to close Policy, Legal & Institutional gaps inhibiting sustainable GW management in the Member States; rolling out the



establishment of National Focal Groups in the Member States to enhance GW management & development; and organization & delivery of on demand training to Member States.

Component 2. Knowledge development, dissemination, and advocacy (US\$2.0 million). The focus will be on supporting research on regional groundwater issues and on developing groundwater monitoring capacity. This will include: support research in TBAs and on regional GW challenges and innovations (e.g. WEFE, Economic valuation of GW, challenges unique to island/coastal states); support Member States to develop real-time GW monitoring capacity and harmonized Databases; and support development of Regional GW Monitoring network and DSS. The selection of 2-3 TBAs out of the included list will be part of the project. This selection will be done by the member states in a participatory way. The SADC Sub-Committee on Hydrogeology, which also serves as the Project Steering Committee, has developed a decision-making mechanism that proved to be efficient in this type of selective processes. This approach supports the ownership and hence the future collaboration. The SADC-GMI has advised the team to avoid prior selection of the TBAs and allow for a participatory selection to support collaborative project implementation.

Component 3. Building resilient livelihoods and inclusive groundwater management: Support to innovative groundwater sub-grant projects (pilots) in the member states (US\$1.1 million). This component aims at improving skills and livelihoods of communities through the promotion of innovative groundwater management solutions and infrastructure through grants. To achieve this objective, the project will support management approaches that take into account the key role that communities, including women and vulnerable populations, play as the principal promoters, educators and leaders of home and community-based water and sanitation practices. This component will support the piloting of innovative groundwater infrastructure solutions, which can then be upscaled through an investment program. It will also support the expansion of groundwater quantity and quality monitoring networks. All grants will be designed within the national and regional context, seeking to implement innovation and synergies with other national programs to maximize impact.

Sustainability, Scalability, and Innovation

Sustainability and scalability of the proposed project’s outcomes will be supported by the institutional capacity building activities under component 2; knowledge dissemination and awareness raising activities under component 2; and community engagement under the pilots in Component 3. The sustainability of the outcomes will be also supported by the strong linkages between the innovative sub-grant pilots and Component 1 (Capacity building at Institutional Level and Individual level). First, the pilots will be underpinned by the knowledge management activities to be implemented under Component 2. Also, a deliberate attempt will be made for capacity building activities to be more responsive to the capacity needs of Component 3 activities, for example through training in proper borehole design to reduce long-term operation and maintenance costs and increase sustainability of pilot projects. The proposed project has an innovative nature: Component 3 is dedicated to supporting innovative sub-grant pilots, which are based on new technological approaches to GW management financed under Component 2.

Legal Operational Policies	Triggered?
Projects on International Waterways OP 7.50	Yes
Projects in Disputed Areas OP 7.60	No

Summary of Screening of Environmental and Social Risks and Impacts

The environmental and social risk rating is moderate at this time. Impacts that may arise are expected to be site specific, limited in scope and duration, and include localized loss of vegetation, soil erosion and degradation, soil and surface water



pollution, minor dust and noise emissions, generation of small scale construction hazardous and non-hazardous waste, occupational health and safety concerns to both contracted workers and community and issues regarding labor and working conditions. Since the impacts are considered localized and of short duration it can be mitigated through the engagement of good practice measures such as the development of an environmental and social management frameworks which includes aspects for addressing health and safety for both workers and communities, labor management practices, stakeholder engagement plans and screening of sub-project level activities and development of site specific environmental and social management plans. It is not expected that the project will require land acquisition or result in loss of livelihoods and assets as the investments are expected to take place within already established community areas.

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APPROVAL

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