1. Project Data

Summary project data			
GEF project ID		5204	
GEF Agency project ID		P-UG-E00-013	
GEF Replenishment Phase		GEF-5	
Lead GEF Agency (include all for joint projects)		African Development Bank	
Project name		Building Resilience to Climate Change in the Water and Sanitation Sector	
Country/Countries		Uganda	
Region		Africa	
Focal area		Climate Change	
Operational Program or Strategic Priorities/Objectives		CCA-1: Reducing vulnerability; CCA-2: Increasing adaptive capacity; and CCA -3: Promoting adaptation technology transfer.	
Stand alone or under a programmatic framework		Standalone	
If applicable, parent program name and GEF ID		Not applicable	
Executing agencies involved		Ministry of Water and Environment (MWE)	
NGOs/CBOs involvement		OXFAM and Uganda Climate Action Network (U-CAN) as partners in knowledge management and awareness; and local NGOs in project implementation.[1]	
Private sector involvement (including micro, small and medium enterprises)[2]			
CEO Endorsement (FSP) /Approval (MSP) date		10/20/2014	
Effectiveness date / project start date		5/12/2015	
Expected date of project completion (at start)		6/30/2018	
Actual date of project completion		12/31/2019	
Project Financing			
		At Endorsement (US $M)	**At Completion (US $M)**
Project Preparation Grant	GEF funding	0.25	UA
	Co-financing		
GEF Project Grant		8.37	8.37
Co-financing	IA own	38.00	38.00
	Government		
	Other multi- /bi-laterals		
	Private sector		
	NGOs/CBOs		
	Other		
Total GEF funding		8.62	8.37
Total Co-financing		38.00	38.00
Total project funding (GEF grant(s) + co-financing)		46.62	46.37
Terminal evaluation validation information			
TE completion date		8/31/2020	

[1] According to PIF.

[2] Defined as all micro, small, and medium-scale profit-oriented entities, including individuals and informal entities, that earn income through the sale of goods and services rather than a salary. (GEF IEO 2022)

Author of TE	PCR Team Leader: Nancy A. A. Ogal. PCR Team Members: David Engwau, Gilbert Kagoro, Grace Katuramu
TER completion date	7/19/2023
TER prepared by	Mariana Calderon
TER peer review by (if GEF IEO review)	Neeraj Kumar Negi

UA = Unable to assess.

Access the form to summarize key project features here: https://www.research.net/r/APR2023.

2. Summary of Project Ratings

Criteria	Final PIR	IA Terminal Evaluation[a]	IA Evaluation Office Review	GEF IEO Review
Project Outcomes	S	3.25		S
Sustainability of Outcomes		2.875		ML
M&E Design		NA		S
M&E Implementation		NA		MS
Quality of Implementation		3.5		S
Quality of Execution		3.5		S
Quality of the Terminal Evaluation Report				MU

a. According to the AfDB Revised Guidelines on Project Completion Report (PCR) Evaluation Note and Project Performance Evaluation Report (PPER),[3] AfDB uses a four-point scale for performance ratings: 4 = Highly satisfactory, 3 = Satisfactory, 2 = Unsatisfactory, 1 = Highly unsatisfactory. This scale is not directly comparable to the GEF IEO's six-point scale. In addition, the TE used a different scale than the one suggested by AfDB guidelines because it allowed for decimal points.

Note: HS = highly satisfactory, S = satisfactory, MS = moderately satisfactory, MU = moderately unsatisfactory, U = unsatisfactory, HU = highly unsatisfactory, UA = unable to assess, NA = not available.

3. Project Objectives and theory of change

3.1 Global Environmental Objectives of the project:

The objective of this project was to "climate-proof the baseline intervention,[4] which itself aimed to contribute to the government of Uganda's efforts to achieve sustainable provision of safe water and hygienic sanitation, based on management responsibility and ownership by the users, to 77% of the population in rural areas and 90% of the small towns' population by the year 2015" (PIF p.9).

3.2 Development Objectives of the project:

The objective of the project was to build "resilience to climate change through the water and sanitation sector in flood- and drought-prone regions of Uganda" (PIF p.2).

3.3 Were there any **changes** in the Global Environmental Objectives, Development Objectives, or project activities during implementation? What are the reasons given for the change(s)?

According to the TE, the project maintained the original design which was strong and adequate and there were no changes in scope nor implementation arrangements (TE p.6). The TE mentions that there was an initial adjustment with communal tanks which did not cause delays; however, the TE does not elaborate more on this adjustment in other sections of the report.

3.4 Briefly summarize project's theory of change – describe the inputs and causal relationships through which the project will achieve its long-term impacts, key links, and key assumptions.

The theory of change was not explicitly described in any of the available project documents. Nevertheless, documents at appraisal describe how project components were designed to climate-proof

[3] Available at: https://www.afdb.org/en/documents/document/revised-guidelines-on-project-completion-report-pcr-evaluation-note-and-project-performance-evaluation-report-pper-9271

[4] The baseline intervention was the Water Supply and Sanitation Programme (WSSP), part of the multi-donor Joint Water Supply and Sanitation Programme Support (JWSSP) (PIF p.6).

AfDB's Water Supply and Sanitation Programme (WSSP), the baseline project. Ultimately, this would contribute to building resilience to climate change in Uganda through the water and sanitation sector.

According to the Request for CEO Endorsement (RCE), investments under the WSSP were jeopardized by climate change because:

- Floods were expected to increase, making unstable slopes in Mount Elgon prone to landslides. This in turn would reduce water quality and threatened the ecosystem and surrounding settlements (RCE p.5).
- Sanitation in densely populated peri-urban areas was compromised in times of flood, increasing the prevalence of hygiene-related diseases. If sanitation facilities were overtaken, environmental damage, unsanitary conditions and the destruction of facilities could occur. This was a major problem in schools where children (especially girls) dropped out due to the lack of climate-resilient and gender-appropriate sanitation facilities (RCE p.6-7).
- Many areas in Uganda were drought-prone and climate change threatened to exacerbate the problem of regular water shortages for domestic use and both livestock and crop farming (RCE p.8).

To address these threats, the additional LDCF financing would make baseline investments climate-resilient by:

- Safeguarding the quality and quantity of water entering the Gravity Flow Schemes (GFS) intakes in Mount Elgon (RCE p.5).
- Investing in sanitation technology which would not be compromised by changing subterranean water levels and would be flood-resilient (RCE p.7).
- Ensuring that water resources were available in times of drought through a series of measures to increase water availability during dry seasons (RCE p.9).

Project components were the following (RCE p.1-3):

Component 1: Baseline analysis and adaptation alternatives: Flood-prone areas of Mount Elgon.
Outcome 1: Improved integrity of Uganda's mountain ecosystems; improved availability and quality of water resources in the Kyoga Water Management Zone; lower risk of flooding and landslides in the Mount Elgon region.

Component 2: Ensuring climate resilient sanitation in flood-prone peri-urban areas
Outcome 2: Increased access to climate-resilient sanitation in flood-prone peri-urban areas; improved health status and reduction in water-borne diseases in flood-prone peri-urban areas.

Component 3: Ensuring access to water for production as an adaptation in drought-prone areas
Outcome 3: Improved availability of safe and clean water for domestic consumption in drought-prone areas; improved crop production levels through availability of bulk water from existing water sources, rock water catchments, subsurface dams, and valley tanks; improved livestock farming through improved water availability.

Component 4: Knowledge Management and Monitoring and Evaluation
Outcome 4: Improved awareness of technologies, measures and practices to increase resilience to climate change in flood- and drought-prone regions.

The Project Identification Form (PIF) noted that appropriate land-use planning at the municipal level would be essential to ensure forest protection from competing land uses. Similarly, effective coordination with local governments would be needed to ensure their support in the on-going provision of water and waste services (PIF p.7-8).

4. GEF IEO assessment of Outcomes and Sustainability

Please refer to the GEF Terminal Evaluation Review Guidelines for detail on the criteria for ratings.

The outcome ratings (relevance, effectiveness, efficiency, and overall outcome rating) are on a six-point scale: Highly Satisfactory to Highly Unsatisfactory. The sustainability rating is on a four-point scale: Likely to Unlikely.

Please justify the ratings in the space below each box.

4.1 **Relevance**	S

This validation provides a *Satisfactory* rating to project relevance The project was aligned with GEF's 2010-14 LDCF Adaptation Strategy goal, AfDB's Country Strategy Paper (CSP), country priorities and needs of beneficiaries.

The project was aligned with GEF's 2010-14 LDCF Adaptation Strategy goal of supporting developing countries to increase resilience to climate change. It met the objective of reducing the vulnerability of both flood- and drought-prone areas in Uganda. The outcomes of the project were consistent with several intended outcomes of the LDCF Adaptation Strategy, namely developing and implementing adaptation practices to respond to climate change-induced stresses in vulnerable ecosystems; reduced absolute losses due to climate change and variability; and enhanced climate resilience of relevant development sectors and natural resources. Within the Focal Area Strategy Framework, aspects of this project address all three objectives (reducing vulnerability, increasing adaptive capacity, and promoting adaptation technology transfer) (PIF p.5)

The WSPP was anchored on the first pillar of the AfDB's CSP for 2011-2015, which focused on infrastructure development, particularly on the development and rehabilitation of critical economic and social infrastructure (TE p.5).

The project was country-driven and responded to key government priorities for climate change adaptation based on the principles of resilient communities through maintaining the integrity of ecosystem services. The components of this project explicitly addressed the top four prioritized intervention areas in the National Adaptation Program of Action (NAPA) – land and land use, farm forestry, water resources and health (PIF p.5). Activities were aligned with Uganda's National Communication, which highlighted the need for more efficient water use, as well as the Uganda Water Action Plan and Water Supply and Sanitation Sector Investment Plans (SIP), which sought to promote better use of natural assets and technology for increased productivity. The Health Sector Strategic and Investment Plan 2010/11-2014/15 and the Second National Health Policy, which had the tagline "to promote people's health to enhance socio-economic development", would also benefit from the project

through analysis of climate change impacts on policy objectives and the integration of adaptation measures into future policy revisions. The National Climate Change Policy emphasized the need for appropriate technology transfer and capacity building to address the challenges of climate change in Uganda. The outcomes of this project were consistent with Uganda's national development objectives as outlined in Vision 2025 and the National Development Plan (2010/11-2014/15), which recognized that addressing the challenges of climate change was crucial to enhancing sustainable economic and social development. The project was also aligned with the objectives of the Convention on Biological Diversity and the UN Convention to Combat Desertification and Drought, and was expected to generate significant synergies among the initiatives designed to implement the three Rio conventions within Uganda (PIR p.6)

Socioeconomic benefits from the project were expected to impact over 695,000 people regarding access to water and sanitation (RCE p.13). The activities in each of the three components of this project had the express aim of creating resilient livelihoods and resilient ecosystems. The project would bring general improvements to the quality of life of the target populations, contribute towards poverty eradication and meeting of the Millennium Development Goals (MDGs) related to water supply and sanitation. The support was expected to have benefits in terms of reduction in water-borne diseases, improved school retention (particularly for girls) and increased productive time due to water collection time saved, thereby contributing to the attainment of health, poverty reduction, and education (PIF p.9). A gender-sensitive approach would be taken in each of the components, in-keeping with the Second Water and Sanitation Gender Strategy (WSGS) (2010 – 2015) and the Gender Plan of Action (PIF p.10). The use of appropriate labor-intensive methods for some of the construction project (e.g. excavation for pipelines) would present employment opportunities for local people (including women and youth) and generate direct income benefits to local households (RCE p.13).

4.2 **Coherence**	MS

This validation assesses project coherence as *Moderately Satisfactory*. The project was compatible with other projects/programs undertaken in Uganda. Although the TE does not describe the theory of change, information included in approval documents suggests that the project had internal coherence. There were, however, some shortcomings in the design of feasibility studies.

The design process had extensive consultations with various stakeholders in the government and non-government sector, both at national and local levels. Other Development Partners (DPs) and non-governmental organizations (NGOs) were consulted in the development and refining of the interventions (TE p.5). Members of the AfDB and the Climate Change Unit met with officials in the Ministry of Water and Environment, including those implementing the baseline AfDB project (Rural Water Department) to agree on priority locations for adaptation based on the vulnerability profile. These locations were further refined followed discussions with other development partners in the country, including : UNDP (who was leading an LDCF project on improved meteorological stations and early warning systems – as part of a regional initiative), FAO (who had just commenced a large EU-

funded program on agricultural adaptation focused on improved water for production and increased climate resilience through farmer field schools), and GIZ, who lead the Donor Technical Group on Climate Change, and confirmed that this project was complementary to other existing interventions in Uganda. A selection of these stakeholders would form an advisory committee for the project, with the aim of ensuring ongoing coordination in cooperation with the Climate Change Unit. Project locations were chosen partly based on the vulnerability profile, but also considering the gaps in the landscape of adaptation interventions by other actors, including the government of Uganda and donors (PIF p.12).

The project was designed within the existing framework of the national water sector, as was the WSSP. Four departments took responsibility for designing appropriate technical and tailor-made solutions for the respective components, subcomponents and activities in order to address the vulnerabilities within the project area (TE p.5-6). According to the TE, the original project design was strong and adequate. One shortcoming was that feasibility studies did not consider that the design of resilient water and sanitation infrastructure systems were climate proofed. This affected actual project activities implementation and caused unnecessary delays for achieving project outputs (TE p.6).

Available project documentation does not include an explicit theory of change. However, the PIF and the RCE describe the logic behind each project component. This information suggests there was alignment among the project's activities, outputs and outcomes (PIF p.7-8 and RCE p.1-3).

4.3 **Effectiveness**	S

This validation considers project effectiveness was *Satisfactory*.

The TE's assessment on output indicators revealed significant achievement targets. Out of the 19 output indicators, 3 were exceeded, 9 were fully met, and the remaining 7 were not fully met (in the range of 17% to 93%) (TE p.14). Regarding project outcomes, they were successfully accomplished. Three out of 9 exceeded appraisal targets: i) tree cover - 205%, ii) access to sanitation - 148%, and iii) hand washing practice - 897%. The outcome indicator for additional potable and non-potable (for irrigation) water production capacity fully achieved its target (100%), whereas the remaining 5 outcome indicators were in the range of 81% to 97%. Stakeholder interviews indicated satisfaction with the quality of the services provided (TE p.10).

In general, the project made substantial progress and accomplishments in meeting its development objectives. A total of 97,109 people benefitted from access to water and sanitation over the 5-year period. Project outcomes contributed to related national outcomes as reported by the MWE in the 2019 national sector performance report (TE p. 8). The project incorporated climate change-related aspects into the initial WSSP activities to ensure that community, infrastructure and ecosystems were resilient to weather and climate variability. 320 households were supported to establish soil and water conservation structures on their farms, 3 demonstration sites were established, and 400 farmers (78 females and 322 males) were trained in various aspects of catchment protection. Access to safe and sustainable water sources reduced the use of water from unprotected wells and springs. The construction of sanitation facilities in schools improved school attendance, increased retention of the adolescent girl-child in schools, and reduced pupil absenteeism. The project enhanced the pupil stance

ratio from an average 1: 89 to 1:54 in targeted schools. The project also facilitated protection of riverbanks (TE p. 14).

4.4 **Efficiency**	S

This validation provides a *Satisfactory* rating on the efficiency criterion.

The TE evaluated the following criteria (TE p.15-17):

- Timeliness: The project implementation was planned for 48 months; however, it took 60 months. One 12-month extension was granted from July 2018 to 30 June 2019. The TE reports that the project was the first project of its kind and, therefore, it demanded repeated engagements with beneficiaries to gain consensus on the applicability of the technologies and the location. This delayed infrastructure contracts.
- Resource use efficiency: The ratio of physical completion of outputs to targets was highly satisfactory according to the TE. As of 30th June 2019, a 100% of the GEF financing had been disbursed, and most outputs outlined in the results framework had been achieved.
- Cost-benefit analysis: The economic benefits of the intervention were positive with most outcome indictors showing a positive outturn. The economic return of the project was EIRR 17% and ENPV USD$ 17,798,368 which reflected its benefits. The project's benefits exceeded its costs, as is the case of most WSS projects.
- Implementation progress: The TE reports that the project complied with all covenants. Under physical progress, it obtained National Environment Management Authority (NEMA) certificates. In addition, project systems and procedures were satisfactory, and external audits found that the project had sound financial management.

4.5 **Outcome**	S

Summarize key outcomes related to environment, human well-being, and enabling conditions (Policy, Legal & Institutional Development; Individual & Institutional Capacity-Building; Knowledge Exchange & Learning; Multistakeholder Interactions), as applicable. Include any unintended outcomes (not originally targeted by the project), whether positive or negative, affecting either ecological or social aspects.

Where applicable, note how both intended and unintended outcomes have positively and/or negatively affected marginalized populations (e.g., women, indigenous groups, youth, persons with disabilities), and where some stakeholder groups have benefited more/ less than others.

The TE considered the project supported government efforts to maintain and improve the resilience of the population and ecosystems to climate change in selected flood and drought prone areas in the Eastern and North-Eastern districts (TE p.14). Based on evidence mentioned in the TE, this validation gives a *Satisfactory* rating to project outcome.

Beneficiaries mentioned during interviews that their living conditions had generally improved, although the TE acknowledges it was too early to assess health and income benefits emanating from the project (TE p.10).

According to the TE, the project created job opportunities for the targeted communities (for both men and women) during the construction phase. This strengthened their skills, which could be useful if those technologies need to be replicated. Women groups that received training expressed their appreciation for acquired skills and were committed to constructing more water tankers in their communities. The hands-on skill in making energy saving stoves was not only embraced by communities but also by institutions. Girls' school attendance and retention increased due to the girl-friendly latrines with a washroom, incinerators as well as the skill in making Re-Usable Pads (RUPs), which could facilitate easy access to sanitary pads for adolescent girls (TE p.10). Gender considerations were also taken on board by ensuring affirmative action for women in management positions of water user committees (TE p.5).

The TE reports some unintended outcomes. On the positive side, valley tanks in Katakwi contributed to increase the availability of local fish species, which was a source of nutritious food for households (TE p.13 and 15). On the negative side, the TE mentions that neighboring communities vandalized facilities with resilient latrines because schools' management locked them up after school hours and during school holidays. Supervision missions pointed out the need for training beneficiary schools on the use of the incinerators and the need for dialogue with the communities regarding latrines (TE p.14). The TE notes the potential introduction of diseases from the wild as the valley tanks at Katakwi were attracting buffaloes. It also reports distortions in revenue collection from the piped water scheme, as some users benefiting from the Rainwater Harvesting Tanks (RWHTs) as well as from the piped water scheme were not willing to pay for the latter during the rainy season, as opposed to the drought season when they could not access rainwater (TE p. 15 and 18).

4.6 **Sustainability**	ML

Note any progress made to sustain or expand environmental benefits beyond project closure, using stakeholder (rather than project) resources, e.g. through replication, mainstreaming or scaling-up of GEF-supported initiatives. Examples would be farmers adopting practices using own funds, follow-on replication projects, development of plans for scaling, inclusion in local or national legislation, and allocation of government budgets or private sector investments for institutional adoption.

This validation rates project sustainability as *Moderately Likely* as some risks affecting institutional capacity as well as the financial viability of the water supply system are present but overall project benefits are expected to sustain.

Financial resources

According to the TE, the project was designed to sustain itself. The RWHTs beneficiaries provided an initial capital contribution per household, which was expected to form a revolving fund for constructing other RWH facilities (TE p.18).

Moreover, the TE notes that budget has already been allocated to government institutions that would provide training to users, which constitutes a good signal for replication (i.e. Nyabeya Forest College to train the community groups in making improved cook stoves, and ATC to train the women groups in constructing ferro-cement RWHTs) (TE p.18).

On the negative side, the TE reports that although the Nyabweya power grid had been installed, it had not yet been connected and was therefore powered by two diesel generators. This was not cost-efficient nor sustainable in terms of fuel costs and access to the pumping house, as slippery roads blocked it when raining.

Interviews conducted by the TE revealed that some households who benefited from the RWHTs as well as from the piped water supply system were not willing to pay for the latter during the rainy season, as they paid only during droughts when they could not access rainwater (TE p.18). However, the TE does not elaborate on how the unsteady revenue collection from the piped water supply system could affect the project's financial sustainability.

Social and environmental sustainability

The TE assessed that the executing agency capacity to manage social and environmental sustainability was adequate. It also reports that regular communication among the implementer, contractors and beneficiaries promoted adherence to environment and social safeguards (TE p.19).

The TE mentions that the baseline project undertook Environment Impact Assessments (EIAs) and that NEMA certificates were in place at the executing agency. The Environment and Social Management Plan (ESMP) was updated regularly, although the TE could not find evidence on Environmental Audits (TE p.19).

Institutional sustainability and capacity building

The water supply system was run by a strong umbrella authority that had experience in managing piped water schemes for in Rural Growth Centers (RGCs) and Large GFS, which reduced institutional risks according to the TE (TE p.18).

The TE assessed that the existing institutional arrangement was instrumental in creating a sense of ownership, institutional memory and ensuring sustainability after project implementation. On job training of local artisans and women groups during the construction phase was a very useful strategy for enhancing operation and maintenance (O&M) as well as for replicating technologies implemented (TE p.6).

However, the TE points out institutional risks related to insufficient capacity building. It mentions that high staff turnover of the district level staff necessitates regular staff training (TE p.6). It also notes that although regional structures were delegated to establish and train the Water User Committees for their respective valley tanks with their own budget, committees for Katakwi had been established but not yet trained by the end of the project (TE p.20).

5. Processes and factors affecting attainment of project outcomes

Before describing the factors, you may choose to summarize reported outcomes and sustainability here: https://www.research.net/r/APR2023.

5.1 Co-financing. To what extent was the reported co-financing essential to the achievement of GEF objectives? If there was a difference in the level of expected co-financing and actual co-financing, what were the reasons for it? Did the extent of materialization of co-financing affect project's outcomes and/or sustainability? If so, in what ways and through what causal linkages?

According to the PIF and RCE, co-financing would come from an AfDB's contribution of USD 38 million (PIF p. 13 and RCE p.3), of which USD 3.5 million would be a grant and USD 34.5 million a soft loan (Letter of Commitment of Funds). Although the materialization of the expected co-financing was not discussed this project documentation, the Project Completion Report (PCR) for the WSSP (baseline) project reports that the AfDB's disbursement was at 95.97% for the loan component and 100% for the grant during the last year of the program (WSSP PCR p.35).

5.2 Project extensions and/or delays. If there were delays in project implementation and completion, then what were the reasons for it? Did the delay affect the project's outcomes and/or sustainability? If so, in what ways and through what causal linkages?

The project's implementation was planned for 48 months. Actual implementation took 60 months. A 12-month extension was granted from July 2018 to 30 June 2019. The project required repeated engagements with beneficiaries to gain consensus on the applicability of the technologies delaying issuance of infrastructure contracts (TE p.15-16).

Other factors that caused implementation delays were also noted in the TE: i) Feasibility studies did not consider the design of resilient water and sanitation infrastructure systems that were climate proofed. This affected the implementation of project activities and caused unnecessary delays for tangible outputs; ii) The baseline report was done during the implementation phase, creating a challenge for developing appropriate baselines and indicators for monitoring resilience; and iii) Activities related to the supply of tree seedlings were hampered by unfavorable weather conditions that negatively affected the distribution and planting of the seedlings. This caused deviations from planned supply and planting periods (TE p.6).

5.3 Stakeholder ownership. Assess the extent to which stakeholder ownership has affected project outcomes and sustainability. Describe the ways in which it affected outcomes and sustainability, highlighting the causal links.

District Inspectors and District Education Officers were involved in the project's assessment, advocacy and awareness activities from the very beginning. Water and Sanitation Committees (WSCs) functioned as a stakeholder engagement mechanism. The project also attached district counterpart staff to the respective contractors for knowledge transfer. Contractors were tasked to engage stakeholders on a day-to-day basis, addressing their concerns and delivering feedback to them on behalf of the IA. Through regular site meetings, stakeholders (including political leaders, local government staff, community representatives and WSCs) were engaged and updated on progress made. Site meetings also provided a platform for stakeholders to express their views and concerns about the implementation and design of the project (TE p.19).

5.4 Other factors: In case the terminal evaluation discusses other key factors that affected project outcomes, discuss those factors and outline how they affected outcomes, whether positively or negatively. Include factors that may have led to unintended outcomes.

No additional factors are mentioned in the TE.

6. Assessment of project's Monitoring and Evaluation system

Ratings are assessed on a six point scale: Highly Satisfactory to Highly Unsatisfactory.

Please justify ratings in the space below each box.

6.1 **M&E Design at entry**	S

Based on information provided in the TE as well as in approval documents, this validation provides a *Satisfactory* rating to M&E Design.

The Department of Climate Change (DCC) was responsible for the overall responsibility of monitoring. Its responsibilities included: i) collect and disseminate project information for all components to support M&E; and ii) document and conduct empirical analyses of experiences and lessons learned. The M&E framework was aligned with the Adaptation Monitoring and Assessment Tool (AMAT). To improve local ownership for all components, the management of M&E at the activity level was to be vested with the appropriate District-level institutions. A consultancy was planned to conduct a baseline study during the first year of implementation to refine the M&E framework; develop a strong measurement framework; collect baseline data regarding selected indicators; and define roles and responsibilities in conducting monitoring activities throughout the lifespan of the project. This study was to lead to the development of a specific M&E Manual (RCE p.15-17). The DCC would also supervise the implementation of Environmental and Social Management Plans in each site. The Plans would be used to enforce compliance and mainstreaming of social and environmental safeguards for all project interventions on-the-ground (RCE p.19).

With regards to gender mainstreaming, gender-disaggregated indicators were outlined in the project results framework (RCE p.13).

6.2 **M&E Implementation**	MS

This validation provides a *Moderately Satisfactory* rating for M&E Implementation based on scattered evidence mentioned in the TE.

The TE notes that the 2018 Implementation Progress and Results Report (IPRR) rated M&E implementation as *Highly Satisfactory*, as the M&E consultants were on board and continuously supporting monitoring and reporting activities, as well as documenting good practices for awareness raising (TE p. 30,31 and 35). However, it mentions that the baseline survey was conducted during the implementation phase, creating a challenge for developing appropriate baselines and indicators for monitoring resilience (TE p.6). The TE also indicates that the expected target of completing 15 reports

was not fully attained (achieved at 93%) (TE p.17). In addition, it states that although the M&E consultancy was very helpful in ensuring timely delivery of reports, contracts expired in 2018, leaving a gap for the remaining project period where the IP had to step in. (TE p.18). Although the TE mentions that a midterm evaluation for the project was conducted in 2017 (TE p.17), this report was not submitted at the GEF Portal. There were quarterly ESMP monitoring exercises throughout the project period (TE p.19).

7. Assessment of project implementation and execution

Quality of Implementation rating is based on the assessment of the performance of GEF Agency(s). Quality of Execution rating is based on performance of the executing agency(s). In both instances, the focus is upon factors that are largely within the control of the respective implementing and executing agency(s). A six-point rating scale is used (Highly Satisfactory to Highly Unsatisfactory), or Unable to Assess.

Please justify ratings in the space below each box.

7.1 **Quality of Project Implementation**	S

This validation considers the project had a *Satisfactory* quality of implementation (TE p.20). The implementing agency performance met expectations, and evidence provided on available project documents does not suggest any salient weaknesses.

According to the TE, the executing agency mentioned that the Bank's overall performance was commendable and expressed satisfaction for its timely responses and for promoting the sustainability of the project through the provision of trainings to the implementing staff as well as management (TE p.20).

The Bank recruited a South African based climate expert to assist the government in formulating the project's concept and compiling the PIF. The Bank further recruited ECO ltd Consortium with UNEP Riso Centre to jointly appraise the project with Uganda Country Office (COUG). The Bank was proactive in processing he first release within 6 months after board approval. It encouraged the adoption of water for production technologies already tested in other projects (RWH tanks, Valley Tanks and GFS) and promoted the adoption of CLTS sanitation technologies to install resilient sanitation facilities (TE p.20).

The Bank monitored the procurement process closely by requesting monthly updated procurement plans. Progress was monitored through monthly and quarterly reports, bi-annual Bank supervision missions and the project's midterm review (MTR). The TE also reports that the Bank supervised and tracked disbursements, and that supervision missions always had a good skill mix, including financial management experts to track fiduciary controls. The Bank always alerted the executing agency in time to act on issues that were likely to cause problems to the project (TE p. 21).

7.2 **Quality of Project Execution**	S

This validation considers that the project showed a *Satisfactory* quality of project execution.

The TE mentions that the executing agency performed exceptionally well, considering it was the first project of its kind. At inception, it opted to implement the project through its in-situ departments as opposed to a standalone implementation unit. This not only ensured institutional memory but also availed adequate skills and staff to successfully implement the project. It also agreed to use the sector partnership fund guidelines common to all DPs and the sector M&E framework with common indicators and quarterly reports. All targeted departments were very receptive at preparation and appraisal, with all commissioners actively engaged (TE p.21).

The executing agency tracked implementation of the ESMP and provided regular standalone reports. The project was properly budgeted in departmental work plans. In addition, it established organisms to manage communal water systems. The large GFS were transferred to umbrella authorities for sustainable management, while schools managed the communal tanks and sanitation facilities at their premises. The sector responded well with submission of accountability, which eased processing replenishments. All project funds were 100% disbursed (TE p.21).

8. Lessons and recommendations

8.1 Briefly describe the key lessons, good practices, or approaches mentioned in the terminal evaluation report, including how they could have application for other GEF projects. Lessons must be based on project experience.

The TE includes lessons learned in each section of the report and provides a summary of lessons and recommendations at the end of the document. However, not all the lessons mentioned throughout the document are reported in the summary section. This validation also notes that in some cases the TE uses interchangeably the terms for lessons learned and recommendations. For this reason, the following list of lessons learned includes all the lessons mentioned at some point in the TE and excludes those lessons that were framed as recommendations.

Lessons learned:

- Implementation through the existing government structures strengthens the system: The use of existing institutional arrangements comprising of sector technical staff and districts is instrumental in creating a sense of ownership, institutional memory and ensuring sustainability after project implementation (TE p.6).
- Challenge of sanitation provision in schools without providing facilities within the surrounding community: Improving sanitation of the schools without catering for the surrounding communities leads to mismanagement /vandalism of the school facilities (TE p.6).
- On job training of local artisans and women groups to ensure operations and maintenance (O&M) is critical: On job training of local artisans and women groups during the construction was a very useful strategy for enhancing O&M as well as replication of the technologies implemented (TE p.6).
- Environment Impact Assessments (EIA) at the design phase: EIA was concluded after project commencement but should have been part of the design phase such that environmental risks were part of the decision-making process (TE p.20).

- Use of Umbrella Authorities to operate and maintain the water supply system: Recruiting Umbrella Authorities, which are experienced in managing RGCs and LGFS, is crucial for the sustainability of the installed water facilities(TE p.22).
- Procurement was to a large extent using national competitive processes and documentation: Using country procurement process reduces lead time with less back and forth in getting no objections from the Bank (TE p.21).
- Financing: Disbursement to the project was through four tranches. This mechanism ensured timely and sufficient funds available to the executing agency (TE p.21).
- Ready designs at project concept stage: The sector had no ready designs for climate resilience which affected the start time of infrastructure implementation (TE p.21-22).
- Use of the consultant to monitor and guide the Implementation of the ESMP: Hiring a consultant to carry out monitoring and guidance on the ESMP implementation ensured close follow up of environmental and social safeguards (TE p.22).
- Approval process for GEF/LDCF funds: The approval process for GEF/LDCF funds is a two-stage process, first under the GEF and subsequently under the Bank Board with different PARs, which makes the process lengthy (TE p.22).

8.2 Briefly describe the recommendations given in the terminal evaluation.

Recommendations to executing agencies and development partners:

- All future project designs should use existing permanent institutional structures in the executing agency for implementation. This ensures institutional memory, use of common implementation modalities and adequacy of skills, staff, and long-term sustainability (TE p.22).
- Plan and implement capacity building within the program as this provides a critical mass of skilled trainers and experts both in the institution and among beneficiaries, thus ensuring a sustainable infrastructure (TE p.23).
- Do not exclude surrounding communities in the planning and implementation of infrastructure among beneficiary institutions; otherwise, it often results in vandalism. Planning should involve all stakeholders with some for all and not all for some (TE p. 23).
- When planning for water for domestic animals or irrigation, some attention should be given to domestic human use, especially in upcountry areas where no alternative source exists. It is also possible to design a water for production facility as a multipurpose facility. Areas with wild animals attracted wild animals to the cattle troughs as well. This calls for joint planning with wildlife authorities (TE p.23).
- Projects should be encouraged to incorporate advanced procurement at appraisal. Designs should be ready at the time of submitting proposals (TE p.23).
- Intensify installation of climate resilient facilities as part of adaptation to climate change. Wherever such facilities are installed, the community response is overwhelming, a clear indication of the high demand arising from climate change adverse effects of draught or flooding (TE p.23).
- There is need for baseline studies either prior to or in the very beginning of the project to establish a starting point in the targeted areas against which the impact can be assessed (TE p.23)

9. Quality of the Terminal Evaluation Report

Before rating the quality of the terminal evaluation, click here to summarize your observations on the sub-criteria: https://www.research.net/r/APR2023.

A six-point rating scale is used for each sub-criteria and overall rating of the terminal evaluation report (Highly Satisfactory to Highly Unsatisfactory)

Criteria/indicators of terminal evaluation quality	GEF IEO COMMENTS	Rating
1. Timeliness: terminal evaluation report was carried out and submitted on time?	The TE was carried out on time, but it was not finished nor submitted on time. The project closed in June 2019. Although the evaluation mission was in April 2019, the TE final report was completed in August 2020 and submitted at the GEF Portal in February 2023.	MU
2. General information: Provides general information on the project and evaluation as per the requirement?	The TE does not provide complete information. For instance, it does not mention the GEF ID nor intended outcomes of the LDCF Adaptation Strategy.	MU
3. Stakeholder involvement: the report was prepared in consultation with – and with feedback from - key stakeholders?	The report mentions that some stakeholders were interviewed for the final evaluation. However, it does not identify them. The report does not mention either if the OFP feedback was sought or included in the draft and final reports.	U
4. Theory of change: provides solid account of the project's theory of change?	The TE does not mention explicitly the theory of change.	U
5. Methodology: Provides an informative and transparent account of the methodology?	The TE does not include a methodology section.	U
6. Outcome: Provides a clear and candid account of the achievement of project outcomes?	The TE assesses the project's relevance to country priorities and reports performance of all outcome targets. It also reports on timeliness of activities and assesses efficiency. However, it does not analyze relevance to GEF priorities nor project coherence.	MS

7. Sustainability: Presents realistic assessment of sustainability?	The TE indicates overall likelihood of sustainability, but does not discuss in depth some financial risks.	MS
8. M&E: Presents sound assessment of the quality of the M&E system?	The TE does not include a section on M&E. Although it provides some information, it is incomplete. For instance, it does not discuss the extent to which resources allocated for M&E were sufficient, or if the information from the M&E system was used to improve project implementation and/effectiveness.	MU
9. Finance: Reports on utilization of GEF funding and materialization of co-financing?	The TE reports on LDCF funding. However, it does not include a section on financing/co-financing in the main document. According to the PIF and Request for CEO Endorsement, co-financing corresponded to an AfDB's contribution of USD 38 million. However, the TE does not assess the materialization of the expected co-financing to any extent.	MU
10. Implementation: Presents a candid account of project implementation and Agency performance?	The TE provides an account of the GEF agency and executing agency performance. However, it does not discuss factors that affected implementation and execution. It does not mention either how challenges were addressed.	MS
11. Safeguards: Provides information on application of environmental and social safeguards, and conduct and use of gender analysis?	The TE reports on the implementation of social and environmental safeguards and reports on gender mainstreaming.	S
12. Lessons and recommendations are supported by the project experience and are relevant to future programming?	The TE includes lessons learned in each section and a summary section of lessons learned and recommendations at the end of the document. Some of the lessons learned mentioned in each section were later reported as recommendations. This suggests that the authors used lessons learned and recommendations interchangeably. The report mentions action takers without enough detail; it only mentions general categories, such as	MU

	"executing agencies" or "development partners".	
13. Ratings: Ratings are well-substantiated by evidence, realistic and convincing?	The TE presents credible evidence, although it is not sufficient. This lack of evidence complicated ratings validation for some criteria, such as coherence, sustainability and M&E.	MS
14. Report presentation: The report was well-written, logically organized, and consistent?	The report was consistent and well-organized. However, there is room for enhancing its readability by improving the quality of English used and by including tools to make information accessible (such as graphs and charts).	MS
Overall quality of the report		MU

10. Note any additional sources of information used in the preparation of the terminal evaluation report (excluding PIRs, TEs, and PADs).