

CIWA Horn of Africa

ARCAN MEL Unit Midline Evaluation Phase 2 Case Study

March 2026

Contents

Acknowledgements.....	4
Executive Summary	5
1.0 Introduction	9
1.1 Background.....	9
1.2 Regional context	10
1.3 CIWA interventions	11
Support to Transboundary Water Resources Management in Somalia	11
Untapping Resilience	12
2.0 Approach and Methodology	14
2.1 Case Study Evaluation Questions	14
2.2 Research Design	14
2.2.1 Data Collection Methods.....	14
2.2.1 Data Analysis.....	15
2.2.2 Limitations	15
3.0 Findings.....	16
3.1 How does CIWA contribute to regional transboundary water management in the Horn of Africa?	16
3.1.1 Contributions to knowledge development and regional learning	16
Untapping Resilience	16
Support to Transboundary Water Resources Management in Somalia	18
3.1.2 Contributions to national and regional capacity building	18
Untapping Resilience	18
Support to Transboundary Water Resources Management in Somalia	18
3.1.3 Overall assessment CIWA's impact on regional transboundary water management	19
3.2 What are the long-term and downstream impacts of CIWA's support?.....	20
3.2.1 Downstream impacts in Somalia	20
3.2.2 Downstream impacts on rural water access.....	20
3.3 Are interventions sustainable beyond CIWA's support?	23
3.3.1 Sustainability at the community level	23
3.3.2 Sustainability at the institutional level.....	25

3.3.3 Progress towards strengthening the enabling environment	25
3.4 Are interventions cost-effective and relevant to the broader donor environment?	26
3.4.1 Relevance of CIWA interventions	26
3.4.2 Cost-effectiveness of CIWA interventions	27
3.4.3 Value for money summary assessment	28
4.0 Key Learnings and Recommendations	29
4.1 Overall conclusions	29
4.2 Key lessons	30
4.3 Recommendations	30
Annex 1: Original ToR: Midline Phase 2 Case Study Concept Note: CIWA (Horn of Africa)	32
Background, scope and visit objectives	32
Case study methodology	33
Process and timing	34
Team	35
Annex 2: ARCAN Evaluation Framework	36
Annex 3: Case Study Evaluation Matrix	41
Annex 4: Bibliography	42
Annex 5: List of Interviewees	45
Annex 6: Ethics and Safeguarding	46
Safeguarding	46
Ethical Approval	47
Annex 7: Use and Influence Plan	49

Acronym List:

Acronym	Definition
AC	Advisory Committee
ARCAN	Africa Regional Climate and Nature Programme
CBM	Community-Based Management
CIWA	Cooperation in International Waters in Africa
EQ	Evaluation Question
FCDO	UK Foreign, Commonwealth and Development Office
FCV	Fragility, Conflict, and Violence
GESI	Gender Equality and Social Inclusion
GW4R	Groundwater for Resilience
HoA	Horn of Africa
ICF	International Climate Finance
IGAD	Intergovernmental Authority on Development
IGAD GWIS	IGAD Groundwater Information System
KPI	Key Performance Indicator
MIS	Management Information System
MoEWR	Ministry of Energy and Water Resources of Somalia
OECD DAC	The Organisation for Economic Co-operation and Development's Development Assistance Committee
PGWC	Platform for Groundwater Collaboration
PID	Project Information Document
VfM	Value for Money
WRA	Water Resources Authority
WRUA	Water Resources Users Association
WSTF	Water Sector Trust Fund

Acknowledgements

This report has been produced by the Africa Regional Climate and Nature Programme (ARCAN) Monitoring, Evaluation and Learning (MEL) Unit. This material has been funded by UK International Development from the UK government; however, the views expressed do not necessarily reflect the UK government's official policies.

The case study was led by Bruce Mead (Water Sector Expert), with support from Eric Vaughan (ARCAN MEL Transboundary Water Pillar Lead Analyst), Mohamed Ali (National Consultant), Valsa Shah (Value for Money Expert), and Gil Yaron (Evaluation Lead). Logistical support for the case study was provided by CIWA. CIWA, FCDO, and EQUALS also provided feedback on a draft version of the report. This version of the report has been revised to incorporate feedback.

Executive Summary

Background

The case study aims to explore the Cooperation in International Waters in Africa (CIWA) programme's impact on transboundary water resource management and development in the Horn of Africa (HoA). Phase 1 of the ARCAN Monitoring, Evaluation, and Learning (MEL) Unit's midline evaluation identified priority gaps to be explored further during Phase 2. Following discussions with CIWA and FCDO, it was agreed that the case study would focus on two of these gaps: 1) CIWA's regional influencing role in transboundary water management, especially in fragile, conflict, and violence-affected (FCV) contexts; and 2) the downstream and longer-term impacts of CIWA's upstream interventions. CIWA's longstanding presence in the HoA was determined to be suitable for an evaluation case study focused on these areas.

The case study specifically focuses on two of CIWA's projects in the HoA. First, the Support to Transboundary Water Resources Management in Somalia project, implemented between 2018 and 2021, offers insights into the long-term impacts of CIWA's work. Second, CIWA is currently implementing Untapping Resilience, a project that supports the regional knowledge generation learning agenda of the World Bank's \$385m Groundwater for Resilience (GW4R) programme, a regional investment aiming to develop groundwater resources in the HoA borderlands.

The case study was structured around the 2025 CIWA Advisory Committee (AC) meetings, held in Nairobi in November 2025. Primary data was collected through two days of structured meetings, and accompanying informal discussions, with CIWA donors in Nairobi, as well as through a two-day site visit to GW4R project sites in Turkana County, in northern Kenya. The site visit was supplemented by remote interviews with the GW4R project team and desk-based research focusing on a review of key programme documents. Due to unforeseen circumstances, planned interviews in Somalia did not take place. The case study is structured around four evaluation questions, with findings from each summarised below.

Key Findings

How does CIWA contribute to regional transboundary water management in the Horn of Africa?

There is evidence that past work in Somalia contributed to the advancement of knowledge and capacity building within the Ministry of Energy and Water Resources (MoEWR). For instance, the project trained 13 technicians on water resource model development. The project also became a platform for CIWA to respond to ad hoc technical queries from the MoEWR. Though regional collaboration was deprioritised as an outcome during implementation, CIWA's support nevertheless contributed to the development of Somalia's National Water Resources Strategy, which prioritises cooperation on transboundary waters.

CIWA's contributes to regional transboundary water management through Untapping Resilience in several ways but the overall impact remains a work in progress. First, three UN agencies (UNESCO, UNICEF, and the UNDP Africa Borderlands Centre) have been contracted through CIWA to produce research in support of GW4R. Second, CIWA is supporting the development of a Management Information System (MIS) to consolidate GW4R data. Third, CIWA reports to be working on a structured capacity development programme but implementation is significantly delayed. Fourth, several formal and informal learning exchanges occur through CIWA's support, including regional learning events and the third IGAD Water Forum. While support appears to be advancing regional discussions on transboundary waters, the case study's second evaluation question identified gaps in the uptake and application of lessons learned.

What are the long-term and downstream impacts of CIWA's support?

Although we could not collect primary evidence, there are indications that CIWA's previous work in Somalia contributed to the World Bank's broader work in the Somali water sector. For example, 12

hydrogeologists trained by CIWA contributed to the Biyoole-II project, which led to the current \$70m Barwaaqo (Somalia Water for Rural Resilience) project.

The site visit to Turkana revealed a number of institutional, community-level, and technical challenges associated with developing groundwater resources in the HoA borderlands. First, the various water sector actors within Kenya's complex institutional landscape have overlapping mandates which they often do not have the resources to fulfil, especially at the County level. Furthermore, Turkana has been historically marginalised within Kenya and remains so. Communities have limited ability and willingness to pay for water, and the monetisation of water can have unintended consequences such as increased charcoal production to generate cash to cover scheme O&M costs. Previous borehole water schemes have also contributed to tensions between communities, and inter-group vandalism is a common cause of failure for water schemes. While CIWA has supported efforts to overcome these challenges, including the establishment of site-level redress mechanisms as part of GW4R standard operating procedures, it remains unclear whether they will be sufficient to succeed in a context described as “a graveyard of failed groundwater schemes”.

Are interventions sustainable beyond CIWA's support?

Operation and maintenance (O&M) of groundwater schemes is a major concern for sustainability at the community level. UNICEF research funded through CIWA identified four main O&M models in the HoA borderlands: community-based management (CBM), CBM with a contracted technical service provider, private operator, and rural public utilities. Of these, CBM with a technical service provider was assessed to have the best prospects for sustainability. However, Oxfam recently completed an evaluation of a pilot of such a scheme that found poor evidence of sustainability. To reduce the burden on community-funded O&M expenses, GW4R has taken a capital-intensive approach based around modern solar-powered systems. This approach may reduce but will not eliminate community O&M costs and has its own risks as replacement costs may be higher due to an underdeveloped supply chain for components.

Prospects for sustainability at the institutional level are mixed. CIWA's work on regional learning and capacity building has a direct impact at this level but efforts are hindered by staff turnover leading to a loss of institutional memory, both within the World Bank and client ministries. Furthermore, our findings point to a bottleneck in internal learning as there is a gap between various upstream learning activities and the application of lessons learned on the ground, including on key issues such as conflict-sensitivity, gender, and social inclusion.

GW4R is seeking transformative change across the broader enabling environment but it remains to be seen whether this lofty ambition is within reach. While there are signs of improved regional collaboration through work with the Intergovernmental Authority on Development (IGAD), there remains a need to develop the policy framework at all levels – from the regional to the sub-national. GW4R is working to promote accountability and a ‘service delivery’ mentality within all stakeholders, from drilling contractors to government agencies. However, this has yet to be imparted – as evidenced by the Turkana site visit – as well as an earlier World Bank field mission to Marsabit County in Kenya. From an environmental perspective, there are reasonable prospects for sustainability as demand for water in the sparsely populated borderlands is assessed to be far below available groundwater reserves. Still, this will have to be monitored as water use evolves through demographic change, new livelihoods activities, and industrial development.

Are interventions cost-effective and relevant to the broader donor environment?

CIWA's work in the HoA is clearly relevant but cost-effectiveness is dependent on whether anticipated downstream impacts are actualised. There is a need to improve sustainable access to water in the HoA borderlands but doing so requires overcoming numerous social, economic, environmental and institutional challenges. Many of these challenges are well beyond the scope and control of a water-only intervention like GW4R. While GW4R aims to take a different approach, there seems to be opportunities for better coordination with other actors active in the region (e.g., UN agencies and Oxfam) to promote cross-programme learning. At the

regional level, CIWA's support appears to be making headway in supporting transboundary collaboration by building a regional consensus on the importance of groundwater but further attention is needed to ensure that capacity development and lessons learned are institutionalised. From a cost-effectiveness perspective, groundwater development in the borderlands is inherently expensive but it is worth considering alternatives when possible, such as nature-based solutions to improving basin catchment and access to water along rivers. Whether GW4R proves to be cost-effective depends on whether it can maintain and apply its transformative vision.

Key Learnings and Recommendations

The case study offers the following cross-cutting lessons:

- ▶ Borderlands are an inherently challenging context but there is much to be learned from past interventions. Further work should be done to engage with other donors and non-governmental organisations active in the region to learn from past and current experiences and identify potential synergies. Oxfam's recent O&M pilot in Turkana is a specific example that could offer lessons directly applicable to GW4R.
- ▶ Internal learning is also crucial as different lessons are being generated within each country context. While the case study focused on Kenya, the implementation experiences will differ in each country, offering rich opportunities for learning that should continue to be exploited through both formal and informal mechanisms.
- ▶ Findings confirm the need for a holistic approach to rural water service delivery. It is evident that water service delivery is not merely a question of infrastructure. New and rehabilitated boreholes cannot succeed solely through the latest technologies as there are various points of failure related to O&M. Institutional reform at all levels is needed if they are to last beyond a few years.
- ▶ Marginalised communities do not have the ability to pay financially viable water tariffs so broader political decisions must be made to improve equitable and sustainable access. Lessons from Namibia suggest that water sector cross-subsidies at the national level can provide financially viable solutions to universal access to water. However, this process is well beyond the scope of CIWA's control.

Based on the findings of the case study, we make the following recommendations:

1. **Work towards regionally aligned national-level standards for groundwater projects.** The World Bank team indicated that upstream processes such as site selection were much smoother in Ethiopia than in Kenya due to established guidelines for water schemes. Similar tools and processes could be developed for Kenya and Somalia drawing on lessons from Ethiopia. According to CIWA, work on harmonising standards and strengthening use of the MIS is underway.
2. **Revisit the GW4R strategic vision based on implementation experience.** There is a need to better articulate the role of developing groundwater resources in addressing fragility, reducing conflict and enhancing resilience in the borderlands at all levels of programme. This includes developing a robust theory of change that applies a GESI and FCV lens to minimise the risk of adverse impacts on social inclusion and conflict. Additionally, there is a need to re-examine the O&M cost recovery imperative of groundwater schemes as it relates to GESI, FCV, and adverse environmental dimensions.
3. **Apply lessons from other agencies working on groundwater in the area.** In the case of Kenya, direct engagement with Oxfam is recommended to fully integrate lessons from their pilot on 'bundling' private sector O&M water scheme service providers.
4. **Work to capture learning generated through informal mechanisms.** GW4R offers a platform for a wide variety of stakeholders from across the region and across the water sector to interact. Valuable learning is generated through these exchanges but is not always committed to institutional memory. Existing structures such as the MIS and regional learning events could be leveraged to aggregate informal learning so that it can be applied going forward.

5. **Apply lessons to projects still in the preparation phase to avoid past pitfalls.** As implementation progresses at an uneven pace, emerging learning should be applied to projects still in the preparation phase to avoid past pitfalls. This includes applying lessons on community inclusion in developing local organisational structures (in pursuit of conflict reduction) as well as on procurement, drilling and O&M. Existing mechanisms, including those directly supported by CIWA through Untapping Resilience, should be leveraged to continue and further strengthen internal learning.
6. **Reconsider engaging graduate students to consolidate available data and improve its usability.** According to a GW4R technical expert, plans to hire five PhDs to work through programme data were scrapped but there remains a need to consolidate all the information generated through the various programme components. Hiring graduate students to do this task could have the added benefit of generating additional public research. CIWA's ongoing engagement with academia, including in the context of GW4R, should make it relatively easy to set up such a scheme.

1.0 Introduction

1.1 Background

The Cooperation in International Waters in Africa (CIWA) programme is a multi-donor trust fund managed by the World Bank. It assists governments and regional organisations in sub-Saharan Africa to cooperate on the management and development of transboundary waters, including rivers, lakes, and aquifers. CIWA works through three main pillars: building the capacity of regional and national institutions, influencing water-related investments, and improving available information about transboundary waters. This work spans several cross-cutting themes including climate resilience, gender equality and social inclusion (GESI), biodiversity and conservation, and fragility, conflict, and violence (FCV).

In April 2025, the ARCAN Monitoring, Evaluation, and Learning (MEL) Unit submitted Phase 1 of the ARCAN Midline Evaluation, which was based on an extensive review of secondary evidence, including CIWA programme documentation and a broader review of thematic literature. Phase 1 of the midline evaluation identified five key evidence gaps relevant to CIWA that could be explored through Phase 2:

- ▶ Link between CIWA's upstream interventions and downstream effects
- ▶ Effectiveness of CIWA's institutional strengthening work, including its capacity building efforts
- ▶ GESI outcomes of CIWA's work, including those beyond gender
- ▶ Sustainability of the results of CIWA's support, including at the project and programme level
- ▶ Synergies and complementarities with other ARCAN implementing partners, related FCDO/UK-funded programmes, and other donor programmes

Following discussions with FCDO, these were refined into two areas of interest to be covered by Phase 2 of the evaluation:

- ▶ CIWA's regional influencing role in transboundary water management, especially in FCV contexts
- ▶ The downstream and longer-term impacts of CIWA's upstream interventions

Based on discussions with FCDO and CIWA, programming in the Horn of Africa (HoA) region was identified as most suitable for answering these evidence gaps. Specifically, the case study focused on two CIWA projects in the region. First, CIWA provided various forms of technical assistance to Somalia's Ministry of Energy and Water Resources (MoEWR) through the Support to Transboundary Water Resources Management project that was active between 2018 and 2022. Second, the Untapping Resilience project has been supporting the World Bank's Groundwater for Resilience (GW4R) programme since 2022. Additional information about these projects is provided in section 1.3.

It is worth noting that CIWA's presence in the HoA extends beyond these two projects. In particular, CIWA's 'Horn of Africa Groundwater Initiative' served as a precursor for GW4R. This \$2.7m grant was implemented between 2019 and 2022 to strengthen regional cooperation and capacities in groundwater. Additionally, CIWA contributed to the development of the World Bank's Transboundary Resilience (T-Res) framework, which also informed GW4R (World Bank, 2022a). In Somalia, CIWA's initial support contributed to additional World Bank projects, including the first International Development Association (IDA) financed infrastructure grant for Somalia (see 3.2.1). These examples demonstrate how CIWA projects in the Horn of Africa build on each other and help leverage other forms of support in the region.

Based on this background, the objectives of the case study are:

- ▶ To understand CIWA's impact in areas affected by fragility, conflict, and violence (FCV) in relation to: 1) CIWA's role in promoting transboundary collaboration in FCV contexts, and 2) the long-term and downstream impacts of CIWA's upstream interventions.
- ▶ Assess drivers of effectiveness and impact of CIWA interventions, feeding into ongoing ARCAN MEL Unit work on Value for Money (VfM) and Transformational Change through the lens of International Climate Finance (ICF) Key Performance Indicator (KPI) 15.

1.2 Regional context

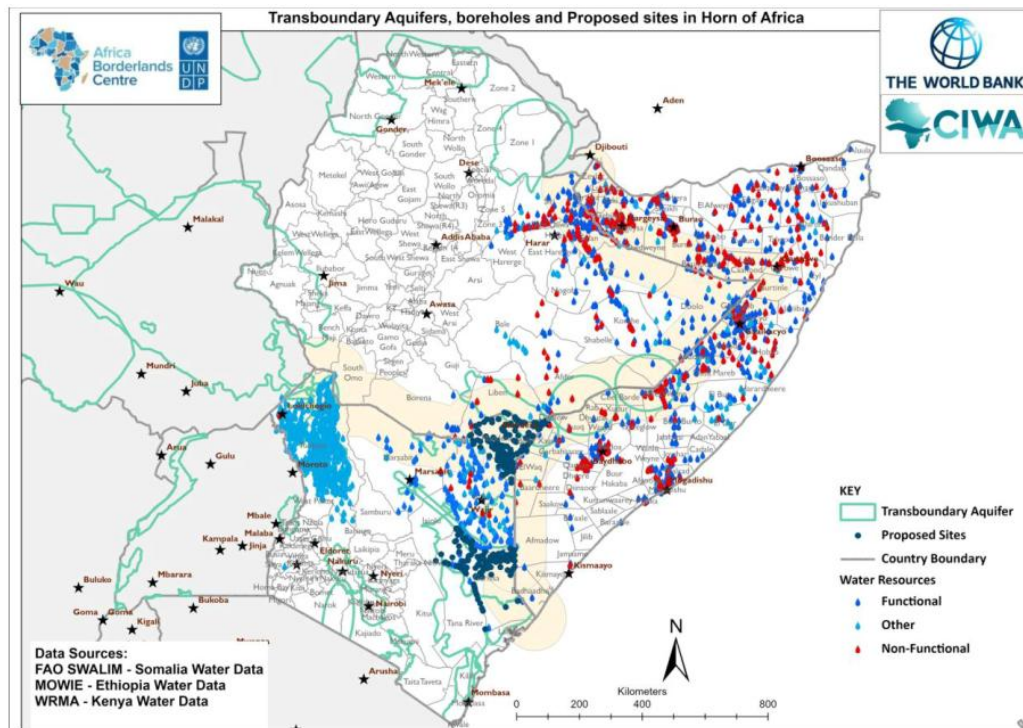
The HoA faces a complex development context, characterised by several intersecting challenges. These include a high vulnerability to climate change, protracted conflict, and high rates of poverty. Challenges are especially acute in the borderlands between Ethiopia, Kenya, and Somalia where climate conditions and socio-economic marginalisation intensify vulnerability. Recent droughts, flooding, and ongoing armed conflict have contributed to mass internal displacement and cross-border refugee flows, further complicating humanitarian and development efforts. Access to water is at the nexus of these issues, and addressing water scarcity is a key component of building resilience.

The HoA borderlands are characterised by a limited supply of surface water. Due to high temperatures, and high evapotranspiration rates, there are few surface water sources (World Bank, 2022b). The Juba and the Shebelle are the two key rivers in the region, and the only perennial rivers in Somalia. Mainly originating from sources in the Ethiopian Highlands, these rivers and their tributaries cut across Ethiopia, Kenya, Somalia before flowing South through Somalia. In northern Kenya, small seasonal rivers flow into Lake Turkana. However, surface water resources only sustain a thin band of irrigated agriculture, close to the Turkel river, which is vulnerable to seasonal rain patterns¹. The region's climate consists of two rainy seasons – the 'long rains' around March to May, and the 'short rains' around October to December – and intervening dry seasons. However, seasonal rainfall is not consistent from year to year, leading to periods of drought (in ENSO La Niña² events) or flooding (in El Niño events). For instance, over 8 million people in Somalia were affected by the 2020-2023 drought while 1.2 million were displaced by above-average rainfall and flooding in late 2023 (European Commission, 2025). Climate change is expected to intensify the region's vulnerability by increasing surface temperatures and bringing more erratic rainfall patterns. See Figure 1 for a map of water resources in the HoA.

¹ It is worth noting that the Turkwel River was dammed around 200km upstream of Lake Turkana with plans for hydro-electric power generation, fisheries development, and downstream irrigation. However, irrigation projects have failed to materialise and the dam is mainly used to generate power, leading it to be viewed as a white elephant (Stecher and Herrnegger, 2019).

² The El Niño-Southern Oscillation (ENSO) is a climate pattern that creates a multi-year cycle in precipitation due to variations in ocean temperatures. In the HoA, El Niño years are generally associated with above-average precipitation and flooding, while La Niña can bring drought.

Figure 1. Transboundary waters in the Horn of Africa (from UNDP, 2023)



Given a dearth of alternatives, groundwater is the key source of water across the borderlands. An estimated 80% of all water-dependent activities (including agriculture, livestock, human consumption, and industry) rely on groundwater (Mohamed, 2025). Groundwater offers more reliable access to water, allowing communities with water points to better withstand climate shocks. The region is known to have at least 11 transboundary aquifers but groundwater information is limited (Ospina and De Neys, 2022). However, regional groundwater infrastructure, information, and technical capacity is lacking. Drilling boreholes is capital-intensive and requires ongoing maintenance. There are particular challenges with water quality in the borderlands, as many boreholes yield water with high salinity and high fluoride content (CIWA, 2024). Furthermore, regional cooperation on groundwater issues has thus far been limited. It is within this context that the World Bank, including CIWA, are working to advance transboundary groundwater resource management and development.

1.3 CIWA interventions

Support to Transboundary Water Resources Management in Somalia

CIWA's support to the Ministry of Energy and Water Resources (MoEWR) aimed to support Somalia in better understanding its transboundary waters so the Federal Government of Somalia (FGS) can better engage in regional collaboration on water issues (CIWA, 2019). The project was implemented between 2018 and 2021 through a \$1.15m bank-executed grant. Though project-specific documentation was not available, the MEL Unit developed a rough theory of change (ToC) for the project based on information presented in the CIWA annual reports published throughout the course of the project (Figure 2). To summarise, the project had two main outcome areas: 1) supporting Somalia in developing its water resources (specifically in the Juba and Shebelle River basins), and 2): supporting Somalia's participation in transboundary water resource management. Each outcome was supported by two output areas. The first included stakeholder engagement and capacity building (including technical training for MoEWR staff and support to Somalia's national water strategy). The second included facilitating regional cooperation and promoting regional learning. However, due to difficulties in engaging with

Somalia's regional partners, the second outcome area was deprioritised and the project instead focused on domestic capacity building (CIWA, 2022a).

Figure 2. Proposed theory of change for the Support to Transboundary Water Resources Management in Somalia project³



Untapping Resilience

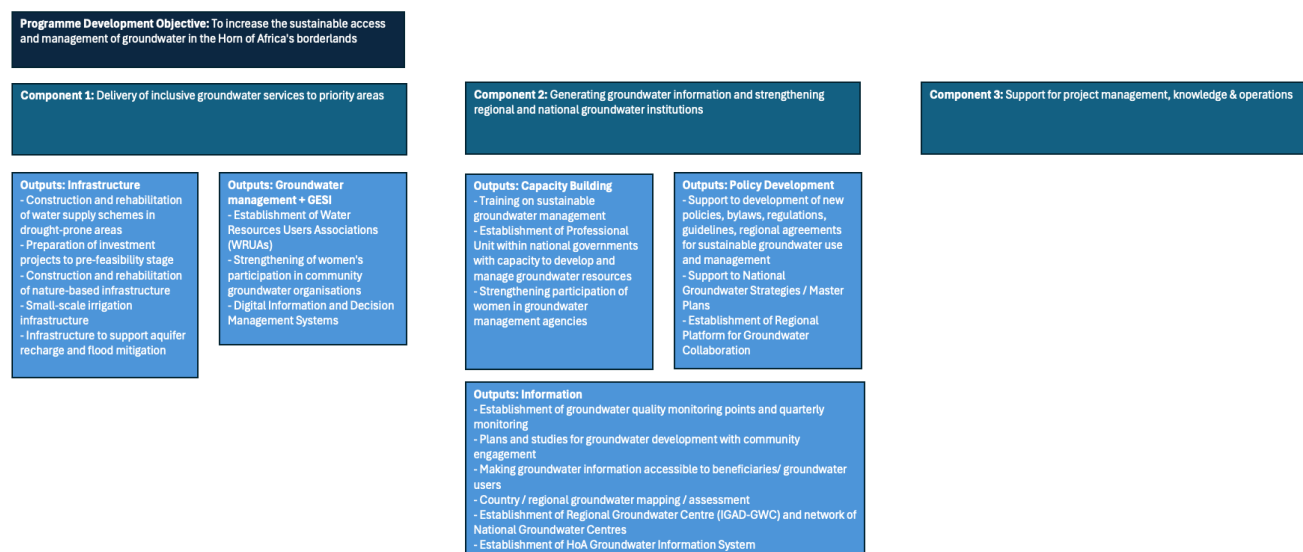
CIWA's Untapping Resilience supports the World Bank's regional Groundwater for Resilience Programme (GW4R). GW4R is a \$385m⁴ World Bank investment that aims to increase sustainable access and management of groundwater resources in the HoA borderlands. The project is implemented through three national-level grants in Somalia, Kenya, and Ethiopia. Additionally, a regional component is being implemented through the Intergovernmental Authority on Development (IGAD). Within each country, project sites have been selected in coordination with the national government. In Somalia, implementation is focused along the Kenyan and Ethiopian border. In Ethiopia, most project sites are in the borderlands but some sites had to be located in central regions to comply with the federal government's fairness policy. In Kenya, implementation is taking place in five counties in the borderlands (Turkana, Marsabit, Mandera, Wajir, and Garissa). Work with IGAD builds on earlier work through CIWA's 'HoA Groundwater Initiative' project, which also engaged IGAD to support regional groundwater development and management.

As presented in the programme's Project Information Document (PID), GW4R consist of three main components. Component 1 focuses on groundwater service delivery through the construction and rehabilitation of boreholes in the borderlands, Component 2 aims to generate regional groundwater information and strengthen key institutions, and Component 3 supports project management, knowledge, and operation. A fourth component serves as an emergency contingency. The bulk of the investment falls under Component 1 (\$293m) with \$62m allocated to component 2 and \$30m for Component 3. At the national level, most of the investment is in Ethiopia (\$210m) and Kenya (\$135m) with smaller grants for Somalia (\$30m) and IGAD (\$10m). A ToC diagram based on the PID is presented in Figure 3. Implementation began in 2022 and is expected to last until 2029 (World Bank, 2022b).

³ Based on information about the project presented in CIWA's annual reports.

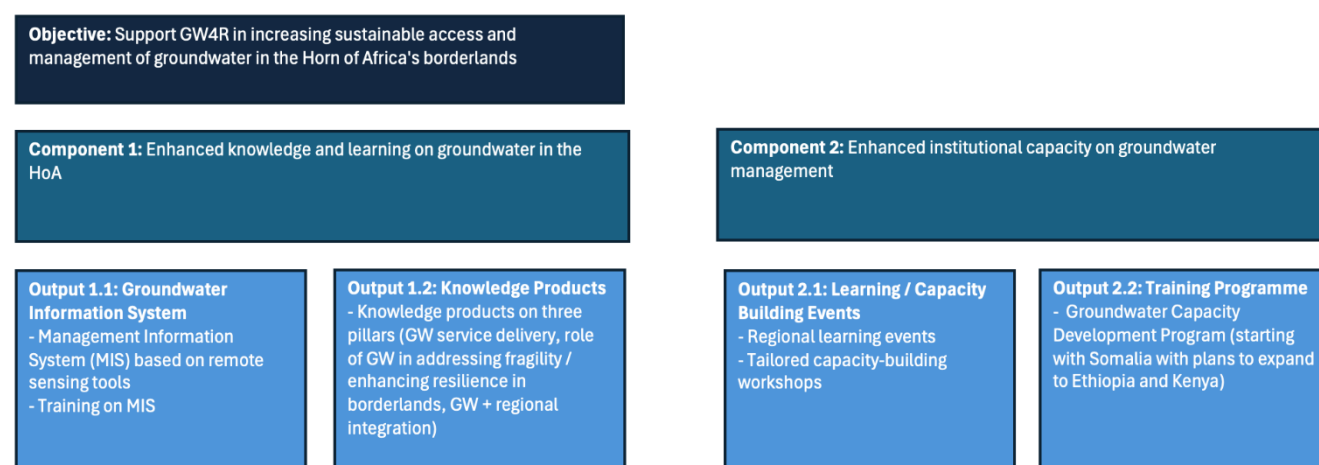
⁴ Per the project information document, the project components sum to a total of \$385m equivalent but the overall financing envelope is \$455m equivalent.

Figure 3. Theory of change for the Groundwater for Resilience programme



CIWA's Untapping Resilience project supports G4WR through two components. First, CIWA is supporting regional knowledge generation and learning through the development of a Management Information System to collate GW4R data and targeted knowledge projects. Many of these knowledge products (including guidelines and technical studies) are produced through a partnership with three UN agencies (UNDP, UNESCO, and UNICEF) funded through CIWA's grant. Second, CIWA is supporting to build institutional capacity through regional learning events and a groundwater training programme. These outputs are generally aligned with CIWA's broader '3Is' approach as CIWA's support directly contributes to strengthening regional institutions and information while supporting infrastructure development. A rough ToC based on information available from CIWA's annual reports is presented in Figure 4 below. In general, CIWA's work contributes most directly to Component 2 of GW4R (including capacity building, policy development, and information outputs) but also supports Component 1 through upstream activities (e.g., through analytical studies and a Management Information System). Untapping Resilience is being implemented alongside GW4R until December 2026 through a \$6.5m grant (CIWA, 2025a). It is also worth noting that CIWA's past work through the 'HoA Groundwater Initiative' directly informed GW4R (World Bank, 2022b).

Figure 4. Theory of change for the Untapping Resilience project



2.0 Approach and Methodology

2.1 Case Study Evaluation Questions

In order to explore FCDO's priority evidence gaps for CIWA, we developed specific case study evaluation questions (EQs), building on the existing ARCAN MEL evaluation framework (Annex 2). Each of the EQs below are supplemented by sub-EQs found in Annex 3.

- ▶ **EQ1:** How does CIWA contribute to regional transboundary water management in the HoA, within the FCV context that characterises the HoA borderlands?
- ▶ **EQ2:** What are the long-term and downstream impacts of CIWA's upstream institutional support within the regional and local conflict context of the Horn of Africa borderlands?
- ▶ **EQ3:** Are interventions sustainable beyond CIWA's support?
- ▶ **EQ4:** Are interventions cost-effective and relevant to the broader donor environment?

These EQs allow us to broadly explore the Organisation for Economic Co-operation and Development's Development Assistance Committee (OECD DAC) criteria of relevance, coherence, effectiveness, efficiency impact and sustainability within the resources available for this case study. Annex 3 provides details on which case study EQs address which OECD DAC criteria – each EQ addresses multiple criteria. We present findings per EQ (see section 3 below). The selected EQs also allow us to consider likely contributions to transformative change (ICF KPI 15) and assess the VfM of CIWA interventions in the HoA covered by the case study. The EQ2 was expanded to include Untapping Resilience as the original focus on Somalia was not possible due to planned data collection activities not taking place. Within each section, the case study finding focuses on the main outcome areas of CIWA's interventions (see section 1.3).

2.2 Research Design

We utilise a theory-based approach with contribution analysis and process tracing techniques to identify outcomes and impacts, and CIWA's role in delivering those, across the focus areas of the case study. We used a mixed method approach centred around the CIWA Advisory Committee (AC) meetings held in Nairobi in November 2025. Participation in the meetings and associated field visit to Turkana County in Kenya was supplemented by key informant interviews (KIIs) and document review.

The fieldwork and interviews (both in-person and online) were carried out by Bruce Mead (Water Sector Expert), and Eric Vaughan (ARCAN MEL Transboundary Water Pillar Lead Analyst). Bruce participated in the AC meetings in person on 3 and 4 November while Eric joined remotely. Bruce then travelled with the CIWA donor group to Turkana County on 5 and 6 November to visit project sites for the Groundwater for Resilience programme. Additional interviews were conducted the week of 10 November. Due to unforeseen circumstances, planned meetings with the Ministry of Water in Somalia could not take place.

2.2.1 Data Collection Methods

Sampling Strategy: The case study used a snowballing approach to identify key informants. Initial discussions with the core CIWA team lead to meetings with task team leaders (TTLs), which in turn led to interviews with technical experts and other donor representatives that were available on the site visits (see Annex 5). Since the

case study was conducted alongside the CIWA AC meetings, fieldwork was limited to four Turkana County project sites identified by the CIWA team.

Activity 1: Desk review. The ARCAN MEL Unit drew on existing documentation (including CIWA annual reports, approach documents, learning briefs, project progress reporting as well as information from the internet – see the bibliography provided in Annex 4) to review existing evidence and develop a semi-structured interview guide that could be adapted to each kind of respondent.

Activity 2: Primary data collection.

1. The case study began with initial meetings with the TTLs for Untapping Resilience and CIWA's work in Somalia.
2. Main data collection activities were conducted alongside the CIWA AC meetings (in-person and virtual participants, Nairobi, 3 and 4 November 2025) and Turkana GW4R site visits (four community groundwater water supply sites, Turkana County, 5 and 6 November 2025).
3. Three additional interviews were conducted the week of 10 November – with the G4WR TTL for Ethiopia and with two external technical consultants.

2.2.1 Data Analysis

Data analysis followed a structured process based on the case study's evaluation matrix (Annex 3). Evidence from primary and secondary sources was compiled against each case study sub-EQ. The initial desk review identified evidence gaps to be addressed through primary data collection. Findings were triangulated across sources to test their validity and ensure a balanced interpretation of findings.

2.2.2 Limitations

Limitations of the approach should be considered when interpreting the findings:

- ▶ The CIWA Untapping Resilience project (and team) is embedded within GW4R so the project's contributions cannot neatly be isolated from the broader programme.
- ▶ Not all contacts identified were available to be interviewed during the data collection phase.
- ▶ Fieldwork in Turkana focused on sites selected by CIWA and there was limited scope to conduct additional interviews within the scope of the donor visit
- ▶ Implementation on GW4R has been delayed so the sites in Turkana were not yet operational.
- ▶ In all four site visit locations visited, contractors had been selected and were in the process of mobilising, but no contractor had either established site facilities or started any work on the planned schemes.
- ▶ Circumstances outside our control prevented us from undertaking data collection in Somalia, and relevant findings mainly draw on secondary sources.
- ▶ Staff turnover has eroded institutional memory and made identifying relevant contacts challenging for CIWA's part work in Somalia.

3.0 Findings

3.1 How does CIWA contribute to regional transboundary water management in the Horn of Africa?

This question is addressed in three parts drawing on evidence from both CIWA projects. First, CIWA's contributions to knowledge development and regional learning, an outcome area of both projects, are discussed. Second, CIWA's contributions to national and regional capacity building, also a shared outcome, are reviewed. Finally, we present a broader assessment of CIWA's contributions to regional transboundary water management in the (HoA).

3.1.1 Contributions to knowledge development and regional learning

Untapping Resilience

There is evidence that CIWA is contributing to the advancement of knowledge and regional learning on groundwater through Untapping Resilience though application of this knowledge remains a challenge. This is being done through three major strands: the generation of knowledge products, the development of regional information systems, and formal learning events. Much of the learning is embedded directly into GW4R operational processes. However, as covered further in section 3.2, findings from the Turkana site visit make it less clear that knowledge and learning is always being applied to implementation on the ground.

First, three UN agencies (UNESCO, UNICEF, and the UNDP Africa Borderlands Centre) have been contracted through the CIWA grant to contribute to a regional research agenda. UNESCO focuses on enhancing the HoA data hub by collecting data, supporting data sharing, and building capacity within IGAD. UNICEF produces applied research to strengthen GW4R implementation. This includes country studies to understand the regional drilling market and rural operation and maintenance models. Finally, UNDP's role is to support capacity building and the application of lessons learned to project implementation. This partnership has yielded numerous valuable products including an analysis of the sustainability of rural water schemes in the borderlands (UNDP, 2023), an assessment of service delivery models (UNICEF, 2025a) and landscape analyses for groundwater drilling in all three countries (UNICEF 2025b;c;d). Additionally, CIWA collaborated with the Rift Valley Institute (2024) on a policy brief applying an FCV lens to groundwater management in the HoA and developed several guidelines for GW4R implementation. These include community engagement, rangeland, and salinity guidelines, as well as a conflict-sensitivity analysis tool. While these outputs are directly applicable to GW4R implementation, the Turkana field visit revealed inconsistencies in their application, suggesting gaps in internal learning (see section 3.2).

Second, CIWA is supporting the development and use of regional information systems. A Management Information System (MIS) was developed specifically for GW4R as a platform to consolidate programme data and lessons learned. The MIS is based on the World Bank's Geo-Enabling Initiative for Monitoring Supervision (GEMS) platform and is being updated as implementation progresses as new data become available. It covers 1,038 potential investments sites with new spatial layers related to salinity, fluoride concentration, drought, and water productivity added in 2025 (CIWA, 2025a). Users of the platform include the GW4R programme's third-party monitoring agent⁵, UNICEF, and hydrogeologists. According to CIWA's reporting, the MIS is being used to make

⁵ A consortium led by BDO.
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investment decisions and is increasingly capable of producing site-level insights, and there are plans to expand functionality based on the needs of each national context. Indeed, the MIS is intended to be a central operational and decision-support tool in addition to being a data management platform. Examples of uses include recording site visits and validation missions, flagging potential risks (including technical, environmental, and social ones), and supporting the systematic registration of potential implementation sites. However, it was not well articulated during the Turkana visit how insights generated through the MIS are operationalised on the ground. Additionally, CIWA is supporting the development of the IGAD Groundwater Information System (IGAD GWIS), which aims to become a regional platform for regional groundwater information. As a starting point, IGAD is working on hydrogeological studies to characterise three transboundary aquifers: the Shebelle aquifer on the Ethiopia-Somalia border, the Dawa aquifer at the tri-point of all three countries, and the Northern Basement aquifer on the Kenya-Ethiopia border.

Third, Untapping Resilience has organised several regional learning events. This includes supporting IGAD Water Forums, the third of which was held in Addis Ababa in May 2025 to discuss strategic priorities and emerging findings from analytical work (CIWA, 2025a). CIWA also supports bi-annual learning workshops for GW4R stakeholders. Four events have been held thus far, each serving as an opportunity for the exchange of learning between countries. Held as multi-day events, consultants said that the first day usually consists of progress updates and emerging lessons while the second focuses on specific issues, including both technical aspects (e.g., groundwater salinity) and socio-economic ones (e.g., mitigating impacts on rangelands). According to technical consultants, these events are usually well attended and provide a useful learning platform, even if much learning occurs beyond formal structures.

Indeed, beyond workshops and learning events, GW4R offers ample opportunities for informal learning. According to technical consultants, regular coordination meetings and ad-hoc discussions serve as invaluable fora for the exchange of lessons learned. For example, the technical complexity of some sites, requiring boreholes of depths in excess of 700m, force the complete array of stakeholders (including hydrogeologists and drilling contractors) to push themselves to new heights. The World Bank's network allows international expertise to be brought in to overcome technical challenges. However, one consultant noted that this modality of experiential learning is not always the most effective. By constantly being pushed to learn, national and regional technical experts do not always have the chance to properly digest and internalise the learning. The consultant suggested that a more structured approach (e.g., a short course taught by an international expert, either in the region or hosted at a European research institute) would be helpful to complement on the job learning. This gap may be addressed by the Groundwater Capacity Development Program in Somalia, a training programme for key staff in Somalia based on video modules translated into Somali and uploaded onto a distance-learning platform. According to CIWA, the Somali platform was scheduled to be uploaded in 2024 and replicated in Ethiopia and Kenya (CIWA, 2024). However, the status of this activity was unclear from the 2025 annual report (CIWA, 2025a) though a GW4R mission report from May 2025 confirmed implementation delays, with only six of 12 planned modules completed (World Bank, 2025).

Findings from the Turkana visit is that there is a need for applied learning on the socio-economic side of groundwater development. As discussed later in section 3.2, the site visit suggested that not all GESI and FCV risks had been adequately considered at the community level. However, much work has been done in this area: various guidelines have been developed, social issues such as rangeland management were covered at the May 2025 learning event, and groundwater management models have been studied. Additionally, GESI considerations are embedded within GW4R protocols, including women-only consultations as standard practice and gender-responsive design features at water points. The gap is therefore in the uptake and application of knowledge through all levels (but especially at individual scheme level). While learning is shared across the core implementation unit, it needs to be pushed onwards so that lessons can be applied to the specific context for individual schemes on the ground.

Support to Transboundary Water Resources Management in Somalia

Learning was among the project outcomes of the previous Somalia project. Based on CIWA reporting, the main learning activities appear to have been three international events that were attended by government staff with CIWA support (CIWA 2019; 2022a). Somali officials participated in study tours on water resources best practices in Astana (October 2018) and in Geneva (May 2019). Additionally, Ministry staff attended a workshop with CIWA experts and international organisations in Nairobi in 2018. According to CIWA, these events helped “shift mindsets away from zero-sum competition over water sharing toward a broader view of cooperative benefit sharing” (CIWA, 2022a: p. 42). While the MEL Unit could not independently verify the impact of these past learning events, there are signs that CIWA support has improved the MoEWR’s technical capacity – this is explored further in the following section. As discussed above, improving technical capacity and sharing learning are necessary steps but new skills and lessons must be applied if they are to have a transformative impact.

3.1.2 Contributions to national and regional capacity building

Untapping Resilience

There are solid indications that CIWA is contributing to regional capacity building through Untapping Resilience. In general, this outcome is intertwined with activities described under the previous component. In fact, learning events are classified under this component rather than the learning component. Nevertheless, CIWA has supported complementary capacity building activities such as training on using the MIS. This includes a refresher training for 130 PIU staff (a third being women) in 2025 (CIWA, 2025a). CIWA experts have also offered a number of training workshops for technical staff. For example, a webinar on salinity in groundwater was delivered in February 2024. As mentioned in the previous section, CIWA has reported plans for a more structured capacity development program, which is outlined in CIWA’s interim programme assessment focused on capacity development (CIWA, 2023). The programme is envisioned as a two-year programme structured around seven thematic modules. First would be an intensive ‘starter boost’ requiring one week of study per month for six months to get participants up to speed on key topics⁶ such as hydrogeology, water service delivery, and community ownership. Subsequent modules would each last three months with two to three days of study per month. Respondents were unable to provide additional detail on the status of this initiative but a recent GW4R mission to Somalia confirmed significant delays in developing and translating the modules (World Bank, 2025).

Support to Transboundary Water Resources Management in Somalia

While the specific impact of capacity building work through Untapping Resilience remains to be seen, there are indications that previous work in Somalia is contributing to improved water resource management and development. A specific outcome of that work was the development of a National Water Resources Strategy for Somalia (MoEWR, 2021). Covering the period 2021-2025, this strategy outlines priority areas for strengthening water resource management, including firming up the legislative and institutional enabling environment, developing a framework for financing the water sector, working towards regional collaboration. Though assessing implementation of the strategy is beyond the scope of this case study, Somalia’s engagement in GW4R is a clear sign of improved regional collaboration. However, CIWA’s specific contributions to the strategy are unclear from the annual reporting, with little detail offered other than the fact that 11 Somalis worked on it (CIWA, 2020). Attribution is further complicated by the fact that CIWA and the World Bank were not the only

⁶ The fully list of proposed modules includes: 1) ‘Starter boost’ (six chapters on foundational concepts), 2) ‘Assess supply and demand’, 3) ‘Community ownership and control’, 4) ‘Planning and development’, 5) ‘Keep records and maintain good order’, 6) ‘Quality control of works and services’, and 7) ‘Standard designs, methods and criteria’.

development partners supporting its development. Indeed, neither CIWA nor the World Bank are specifically acknowledged in the document itself, with only UNDP and UNICEF mentioned by name among “a range of stakeholders representing government ministries, international cooperating partners and external stakeholders (private sector and civil society)” (MoEWR, 2021: p. ii).

However, the nature of specific capacity building initiatives is clearer as CIWA provided training on specific technical skills as well as ad hoc support. For example, 13 technicians participated in a training programme on water resource model development that consisted of four weeklong sessions (CIWA, 2021). This programme helped participants process climate-input data, prepare models for scenario planning, and use findings to support officials in making data-driven decisions. Furthermore, CIWA noted that enhancing overall MoEWR operations and decision-making was a major unexpected outcome of the project. While some activities (especially those related to regional collaboration) were not implemented, CIWA’s regular contact with the Ministry fostered a strong connection that led to staff reaching out to CIWA with technical queries (CIWA, 2022a). This ad hoc support covered various issues such as project management, event organisation, and water service delivery. The enhanced capacity of the MoEWR is also reflected through downstream activities including participation in transboundary groundwater collaboration through G4WR and subsequent World Bank projects in Somalia (see section 3.2).

3.1.3 Overall assessment CIWA’s impact on regional transboundary water management

At the regional level, CIWA’s impact on transboundary water management remains a mixed bag. While previous work in Somalia made little progress on regional collaboration, it appears to have helped set the foundation for future collaboration through G4WR. As mentioned in section 1.3, supporting Somalia’s participation in transboundary water collaboration was deprioritised as an outcome during implementation due to Somalia’s efforts to begin consultations not being reciprocated (CIWA, 2022a). Nonetheless, the National Water Resource Strategy highlights transboundary basin management as a strategic objective (MoEWR, 2021). Whereas reciprocal interest in collaboration apparently did not exist during the previous Somalia project, momentum appears to be building throughout the implementation of GW4R. Indeed, technical consultants reported observing a shift in mindset among national staff, with the importance of transboundary collaboration increasingly recognised. They also remarked that groundwater offered a less politically contentious entry point than transboundary river basins (such as the Juba and Shebelle) for initiating regional discussions on water.

The regional component of GW4R appears to be advancing these discussions. The programme is working through the IGAD Platform for Groundwater Collaboration (PGWC), which serves as the main mechanism for collaboration between IGAD and programme member states (IGAD, 2024). Through IGAD, regional discussions have progressed through editions of the IGAD Water Forum and other regional meetings. However, it should be noted that the Water Forum predates GW4R, with the first held in 2014 and the second in 2022 (IGAD, 2014; 2022). These events were organised with the support of other international organisations such as UNESCO, UNEP, and IUCN so the World Bank cannot claim sole credit for advancing regional cooperation. Additionally, data sharing protocols⁷ are not yet fully implemented with a World Bank staff member saying that more trust needs to be built to progress to that stage.

Despite reports of progress at the regional level, it is less clear whether CIWA’s institutional support is translating to a systematic application of the overarching programmatic strategy. Indeed, the site visit to

⁷ Data sharing protocols are well developed and formalised in some TWM contexts (e.g. Okavango River Basin) but their existence and formalisation are not a guarantee that they will be effective in implementation and lead to the desired impacts. Trust issues have been identified by the WB Team (even just to get to the start of implementation) and subsequent steps will need to be taken to ensure the desired impacts are realised.

Turkana identified several gaps in the application and understanding of the strategic vision, frameworks, and guidelines, including for GESI and FCV issues. Challenges in translating upstream support to downstream impact are discussed in detail in the following section.

3.2 What are the long-term and downstream impacts of CIWA's support?

3.2.1 Downstream impacts in Somalia

Despite not being able to assess the long-term downstream impacts of past work in Somalia, there is secondary evidence of CIWA's support contributing to the World Bank's broader water work in Somalia. Whereas the previous project was implemented as a bank-executed grant, there were plans to use this initial engagement as the basis for a subsequent recipient-executed grant, implemented through the Federal Government of Somalia (CIWA, 2020). While the conditions were "not ripe for a recipient-executed activity" (CIWA, 2022a: p. 42), CIWA's support contributed to the water section of the World Bank Country Partnership Framework for Somalia for FY2019-22 (World Bank, 2018). The partnership framework emphasised the importance of transboundary water collaboration, an area also covered in the current framework for 2024-28 through the Somalia component of GW4R (World Bank, 2024a). Additionally, CIWA claims that technical support through the Somalia project directly contributed to the Biyoole-II project, the first International Development Association (IDA) financed infrastructure project in Somalia (CIWA, 2021; 2022). The 12 hydrogeologists trained through CIWA were reportedly engaged to identify and select sites for the project, which aims to develop water and agricultural services among agro-pastoralist communities in drylands. The Biyoole project in turn led to the current \$70m Barwaaqo (Somalia Water for Rural Resilience) project, which is working to scale up services in rural areas and enhance institutional capacity (World Bank, 2024a).

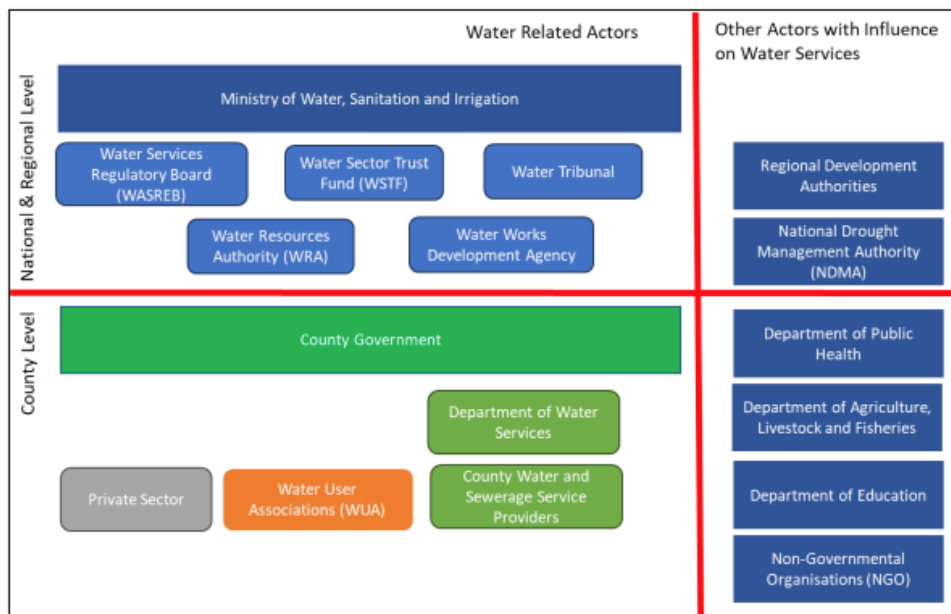
3.2.2 Downstream impacts on rural water access

The CIWA site visit to Turkana highlighted the plethora of challenges associated with developing groundwater resources in the HoA borderlands. This includes challenges at the institutional level, at the community level, and at the technical level. These are described in turn below.

First, each of the three countries has its own unique institutional arrangements which influence programme delivery. In Kenya, the Ministry of Water, Sanitation and Irrigation holds the federal mandate for the water sector (UNICEF, 2025a). The Ministry is supported by parastatal institutions such as the Water Services Regulatory Board (which oversees water providers), the Water Tribunal (a disputes resolution mechanism), and the Water Resources Authority (WRA, a regulator established to safeguard the right to clean water). At the regional level, Water Works Development Agencies were established under the 2022 Water Act to support access to water. Turkana County is covered by the Northern Water Works Development Agency, whose mandate was reaffirmed by the 2016 Water Act. The updated Water Act also established the national Water Sector Trust Fund (WSTF) to support counties in financing the development of water resources. Furthermore, the 2010 national constitution called for the establishment of an Equalization Fund to reduce inequalities by distributing national revenues to marginalised communities, including those in northern Kenya (Commission on Revenue Allocation, 2018). At the sub-national level, counties are mandated to establish their own water legislation in line with federal policies. Of the five counties covered by GW4R, four have county water acts in place while Wajir's has yet to be passed (UNICEF, 2025a). Counties' Departments of Water Services are responsible for implementing these policies, with the support of county-level service providers, the private sector, and communities. UNICEF's mapping of the Kenyan institutional framework is presented in Figure 5.

Excessive complexity and coordination failures have led to significant delays in implementation. GW4R is working through many of these institutions, with the Ministry responsible for national coordination (CIWA, 2022b). The WRA and WSTF are the main project implementers, working with county governments and water resources user associations. However, evidence from the field indicates uncertainty and potential overlap in their mandates as the policy framework is still under development. As highlighted next, coordination between state agencies can also be poor. Navigating these bureaucratic structures has proved to be immensely time consuming, and led to significant delays in implementation, with the first construction works only beginning three years into the programme. GW4R has recently helped the WSTF and WRA onboard critical design and hydrogeology experts to address gaps in expertise and expedite work (World Bank, 2024b).

Figure 5. Kenyan water sector institutional framework (from UNICEF, 2025a)



Despite legislation and structures being place, the state plays a limited role in water service delivery in rural areas of northern Kenya. The area has historically been marginalised and remains so. With limited resources, the county government contributes little to water service delivery in rural areas, which is largely provided for by international donors and NGOs. As such, local governments appear to feel little accountability towards the communities they serve. Communities in turn have low (or no) expectation of service delivery from their own local or national government structures. For example, a World Bank expert provided an anecdote from a visit to Marsabit County where the member of the County Executive Committee responsible for water and the sub-county water officer were both unaware of a borehole that had been out of service for several weeks, despite a repair team being dispatched from the county's Borehole Rapid Maintenance mechanism. In another case, the county government drilled a borehole but never installed a pump and capped it, leaving it unused for five years. Though these are individual data points, they are corroborated by the findings of a study of the Kenyan drilling market which identified policy issues and the limited capacity of regulatory bodies to enforce rules and regulations as the main bottlenecks for industry (UNICEF, 2025c). Indeed, all signs point to deep rooted systemic failure in water service delivery.

The socio-economic context further complicates rural water service delivery at the community level in Turkana. Rural water schemes often operate on a pay-per-use basis, with rates between around \$0.05 per 20 litre jerry can the norm in northern Kenya (UNICEF, 2025a). However, agro-pastoral communities are often not accustomed to making cash payments for services, so the establishment of water as a paid good can disrupt the social fabric of the community. According to an Oxfam study (2024) water schemes collected very little revenue –

the equivalent of 6% of targeted households paying around \$10 a year – far below cost recovery. Even in pastoralist communities where people own productive assets such as livestock, they are not always sold for income and instead serve as stores of wealth. Furthermore, not all community members own livestock so the marketisation of water can create perverse incentives to generate cash. An unintended consequence of monetisation (in a largely un-monetised customary community) is the drive for cash and its cascade to illicit sources. A rise in practices contributing to deforestation and environmental degradation, such as charcoal production, is possible (and significant charcoal activity was observed adjacent to monetised water schemes in the Turkana site visit). At the sites in south-central Turkana County, the discovery and production of crude oil are already documented as disrupting community dynamics and having adverse environmental and social consequences. Indeed, the influx of workers to the area has been noted as having the potential to increase the risk of gender-based violence (Golder and Ecologic Consultants, 2020). The project has led to several court cases related to negative impacts such as contaminated water sources and pollution, livestock deaths, air quality and health, and compensation (IPRI, 2025; ISLA, 2025; Walter, 2024). Finally, the provision of water can also inflame longstanding conflicts between different agricultural and pastoralist groups. For instance, one donor described a case where a borehole that served two rival communities ended being vandalised over a dispute about fairness (and favouritism) in its management. Such cases are not uncommon as vandalism and theft were listed as the third most common root cause of rural water scheme failure in the 2023 UNDP study. Efforts to address such issues within GW4R include the establishment of site-level grievance mechanisms.

Structural challenges have been compounded by the technical complexity of developing groundwater resources in northern Kenya. This includes limited information about aquifers, gaps in technical expertise, and operation and maintenance (O&M) issues. As mentioned in section 1.3, a major objective of the programme is to improve knowledge of aquifers in the borderlands, which is generally lacking. Needs include mapping the extent of aquifers, working towards standardised naming to facilitate transboundary management, and studying groundwater recharge. The study of the Kenyan drilling market identified gaps in the technical capacity of drilling companies as the third most important bottleneck (UNICEF, 2025c). Improper surveying and construction methods can lead to borehole collapses, identified by 85% contractors as the primary type of failure during drilling. For successful boreholes, remaining operational is an issue with UNDP's analysis finding that 22% of water systems in Turkana, Mandera, and Garissa counties were not functional (UNDP, 2023). Of those that were not operational, pump failure was by far the most common reason for failure. Generator failure was also identified as a major issue for previously rehabilitated boreholes. As mentioned, mechanisms for repairing boreholes have limited efficacy and are further hindered by a lack of spare parts and technicians, who may take weeks to arrive from Nairobi. Challenges related to O&M models and their sustainability are discussed further in section 3.3 but it is imperative that lessons learned from past projects and studies, including those commissioned by GW4R, be applied.

While CIWA has supported efforts to overcome these challenges, it remains unclear whether they will be sufficient to allow GW4R to succeed where so many have previously failed. Despite prior knowledge of the multiple agencies, complex institutional arrangements and delicate politics involved in site selection, G4WR could not avoid significant delays in implementation. Though CIWA supported the development of a conflict-sensitivity assessment tool, the site visit in Turkana suggested that its application, or the tool itself, did not adequately consider key social, equity and environmental risks associated with the water schemes (e.g., potential adverse impacts on charcoal production and deforestation). However, the recently completed drilling landscape assessment study has offered valuable insights to the project team (UNICEF, 2025c). Indeed, a GW4R team member said that in Ethiopia the study allowed construction to start within a few months of its publication. Nevertheless, donors on the trip expressed doubt as to whether GW4R's approach was sufficiently well informed or transformative enough to overcome past pitfalls. One donor who had 35 years of experience in water service delivery in northern Kenya described the area as "a graveyard of failed groundwater schemes". It remains to be seen if GW4R is to avoid becoming yet another tombstone in this graveyard. Our case study suggests that significant programmatic adjustments are urgently needed in order to avoid this in the context of GW4R. Key issues

on sustainability and internal learning are discussed further in the next sections, highlighting that key structural issues may be beyond the scope of GW4R's influence.

3.3 Are interventions sustainable beyond CIWA's support?

This section covers sustainability at three levels within the GW4R programme. Building on the previous sections we consider sustainability of CIWA-supported work within specific project sites and of upstream institutional capacity building work. Additionally, we take a broader view and consider the sustainability of the World Bank's broader efforts to enhance the enabling environment for rural water service delivery. For each dimension, we consider evidence of sustainability being integrated into programme design, as well as prospects for future sustainability based on the wider context.

3.3.1 Sustainability at the community level

The quality of borehole construction and water distribution systems (capital investment) is a key factor in sustainability for GW4R. As mentioned in the previous section, boreholes in the HoA can fail at various stages of construction and operation. Various components such as pumps, solar inverters, and generators are subject to failure, leading to down time. Improving the design and build quality of boreholes and water distribution systems can help mitigate the risk of breakdown but increases initial capital costs, as well as replacement costs in the case of vandalism or theft.

A second key aspect of sustainability is operation and maintenance (O&M). Informed and appropriate capital investment (as above) is a necessary but insufficient component of sustainability. Appropriate (and often more expensive) capital investments can assist in reducing costs of O&M, but even the best systems require some levels of O&M. The UNICEF study on management models commissioned by GW4R identified four main categories of O&M approaches used in the HoA borderlands (UNICEF, 2025a). A separate OXFAM pilot (and evaluation in 2024) examined a specific Clustered Private Service Provider O&M model in 60 schemes in Turkana (see below for more details). A range of models are in use, with the four most prominent as described below.

- First, a range of community-based management (CBM) models which remain most common across the region. Generally, the infrastructure capital expenditure is funded by the government, a donor or an NGO and then handed over to the community which bears the responsibility for funding and carrying out O&M. Specific arrangements differ in each country, and in the Turkana site visit, it appears that most schemes are donor or NGO driven. In Somalia, clans play a major role in community-based management and can draw on the diaspora to fund repairs. In Kenya management groups may or may not be formally registered (as self-help groups or as water user associations) but in most cases there is no formal regulatory link between them and the government. The efficacy of community-based structures is highly variable, depending on the leadership and capacity of its management.
- Second, CBM may be combined with a technical service provider contracted to perform major repairs and other maintenance tasks. For example, in Turkana County the Diocese of Lodwar provides an insurance scheme to CBM groups to pay for repairs.
- Third, the water scheme may be run by a private operator that can quickly respond to O&M issues, using revenues for tariffs charged to users. This model is present in Ethiopia and Somalia. The Oxfam (2024) pilot and evaluation have several findings based on practice in Turkana Kenya.
- Finally, rural public utilities may operate water schemes, though these tend to be found in rural centres rather than more remote villages. We came across no examples of this model during the Turkana site visit.

While the suitability of each model is context-dependent, UNICEF's study concluded that in general the CBM model tends to be less reliable but can produce better results when combined with a technical service provider. In general, rural utilities do not necessarily produce better results as government procurement systems have well-documented shortcomings and can lead to delays. In contrast, private operators have (in theory) an economic incentive to minimise downtime. However, tariffs are often (perhaps always) set well below the threshold to cover O&M needs, and rural water schemes in the borderlands tend to remain dependent on external subsidies.

Based on the findings of UNICEF research, GW4R is looking to engage the local private sector and utilities to meet O&M needs while fostering community engagement. This includes setting up a pilot for the professional management of 33 schemes in Kenya with (CIWA, 2025a). Through this pilot, utilities will receive results-based funding to incentivise performance. Simultaneously, the programme retains a focus on CBM as it plans to support the establishment of water resources user associations (WRUAs). This component applies a GESI and community-driven development lens as GW4R aims to empower women by involving them in WRUAs, including in leadership positions. This hybrid approach can overcome some GESI concerns, for instance allowing communities the flexibility to establish tariffs structures that maximise inclusion by making exceptions for vulnerable groups. However, cost-recovery remains a challenge as the ability to pay of borderlands communities rarely covers even O&M needs. If sites are selected based on community's ability (and/or willingness) to pay for water in order to maximise economic viability, there is a risk that the most vulnerable are left behind.

Indeed, Oxfam (2024) has already tested a similar model through a 90-scheme pilot in Turkana. Under the pilot, water schemes were bundled under a single O&M contract tendered to a private contractor. The pilot was then subject to an evaluation, with 60 water schemes in the treatment group and 30 control schemes⁸. The treatment consisted of water points being serviced by a private operator contracted to undertake O&M. The pilot aimed to achieve cost-efficiencies and work towards commercial viability by bundling several water points under a single contract. However, even with bundling, revenues amounted to only an equivalent of 6% of targeted households paid an average of KES 100 a month. This is far below the cost recovery threshold of 40% of targeted household paying the monthly fee, meaning that only 15% of operating expenses were recovered. In contrast, schemes in the control group were able to raise 64% of what was needed. The implication thus is that prospects for sustainable private sector-driven O&M service provision in the Turkana context are poor. These findings also raise concerns on cross-programme learning as it is unclear whether the GW4R pilot has incorporated these lessons and can produce a different outcome.

To foster sustainability, GW4R has taken a capital-intensive approach to reduce O&M needs. Indeed, the programme will install modern solar-powered water schemes that have the benefit of reducing O&M costs relative to diesel-powered generators but require a greater initial capital outlay. Significant repairs can also be more costly as the supply chain for solar components is still being developed, especially in remote areas. Additionally, the programme is prioritising multi-village schemes rather than isolated water points to improve efficiency (CIWA, 2025b). This is being coupled with a real-time remote monitoring system and pre-paid water metering systems to enhance transparency and accountability. Additionally, the programme will provide training to WRUAs so they can perform basic O&M tasks (World Bank, 2022b). The pivot to test different O&M models based on research findings suggests the uptake of learning and programmatic flexibility. However, the sustainability of GW4R-funded schemes will only become apparent once they become operational. Financially, community-level sustainability does not appear to be a realistic objective and rural water schemes will remain dependent on external support to cover O&M expenses. By implication, the overall sustainability of rural water service delivery depends on the broader enabling environment, discussed below.

⁸ The control schemes were included in the treatment group later on, allowing Oxfam to compare outcomes in schemes serviced by the private operator to those that were not yet included in the programme.

3.3.2 Sustainability at the institutional level

The sustainability prospects of work at the institutional level, which is more directly tied to CIWA's inputs, are mixed. On one hand, the nature of some workstreams means that they can have a lasting impact with no further action. For instance, knowledge products, data, and insights generated through CIWA-funded studies that contribute to the public domain can be used by various stakeholders, including future government and donor programmes. However, this benefit is only actualised for knowledge that becomes public so work on establishing public databases and data sharing protocols remains critical. On the other hand, progress on the regional learning agenda is slowed by staff turnover within the institutions supported by CIWA. For instance, we struggled to identify individuals who were aware of, much less directly involved in, CIWA's previous technical assistance to the MoEWR in Somalia. GW4R experts confirmed that institutional memory is lost through staff turnover and that there is a need to institutionalise lessons learned. The GW4R capacity development programme and associated learning platform would work towards addressing this gap if it can be operationalised and replicated across the region.

Our case study points to internal learning potentially being a bottleneck within GW4R, and within the World Bank's country-based sector teams more broadly. Despite the various products, guidelines, and learning events, findings point to gaps in the understanding and application of the overarching strategy. Based on interactions during the site visit, the overall vision was best articulated at the top levels of CIWA management with the underlying thesis becoming increasingly muddy further down the chain. As with client institutions, staff turnover within the World Bank works against the retention of institutional memory. For instance, the TTL for the past Somalia work moved to a role within the World Bank, taking much of the learning from that project with them and pointing to insufficient handover and knowledge management processes. Initiatives such as CIWA's (2023) interim progress are valuable learning tools but must be coupled with active efforts to ensure the transfer of knowledge to new team members.

3.3.3 Progress towards strengthening the enabling environment

Given the inherent complexity of developing groundwater in the HoA, the overall sustainability of the World Bank's work in the HoA is contingent on the strength of the wider enabling environment. While GW4R aspires to engender transformative change, whether this is achieved will be only known in time. GW4R and our case study's findings emphasise three aspects of the enabling environment that are key to sustainability. These are:

First, there are signs of progress in promoting collaboration at the regional level. Work through IGAD on data sharing has been recognised as key to regional cooperation given its impacts on decision-making, fostering a sense of trust and collaboration, and maximising resource efficiency (CIWA, 2023). As mentioned in previous sections, programme staff report a building appetite for regional collaboration on transboundary water resources. There are also early signs that this collaborative spirit is yielding tangible benefits for transboundary water management. For instance, HoA countries are working on memoranda of understanding and frameworks for data sharing. Additionally, the Merti aquifer is being piloted as an example of joint management between Kenya and Somalia. These findings contrast with what was reported during the previous Somalia project, suggesting that CIWA-supported activities are having an impact.

Second, there remains a need to further develop the policy framework at all levels, from the regional to the sub-national. For example, in Kenya water sector policy is at various stages of development and operationalisation at the county level (UNICEF, 2025a). Furthermore, national agencies including the WRA are insufficiently active in regulating the drilling sector, contributing to issues such as opaque procurement processes, weak enforcement of environmental and social standards, and delays in issuing permits and therefore delays in construction (UNICEF, 2025c). The passage of county-level water acts in recent years points to progress, even if

these initiatives pre-date GW4R. For instance, advocacy from other development actors has contributed to 10% of Turkana County's annual budget being earmarked for O&M and the county's water act established a new fund to pay for capital projects (Oxfam, 2024). While such policy reforms may be beyond the scope of GW4R, CIWA's wider upstream work – including past work in Somalia supporting national water policy – demonstrates how CIWA can work to support such change.

Third, GW4R is seeking a paradigm shift across the entire water supply chain to prioritise accountability and service delivery. This includes a shift from a focus on individual boreholes to a more holistic investment in infrastructure and supporting systems. It also includes working towards a more professionalised approach to service delivery across all stakeholders, from county governments, to WRUAs, to private operators. Water ATMs are among the tools being used to create accountability and incentivise results-based performance. Though the programme appears to have considered many aspects of the enabling environment, achieving transformational change is an upstream battle as GW4R must overcome inefficiencies that have become embedded within the system. For instance, a World Bank field mission to Marsabit County found that there remained a gap between the programme's vision of holistic change and implementing agencies' piecemeal approach to borehole rehabilitation. Similarly, O&M guidelines developed six years prior had yet to be operationalised in Marsabit County. As such, borehole failures remain high – with some of those to be rehabilitated under GW4R constructed as recently as 2022. Still, as long as GW4R retains a clear view of its overall objectives and avoids getting stuck in the weeds as implementation progresses, there remains potential for true transformative change.

According to CIWA experts, prospects for environmental sustainability of groundwater schemes in the HoA borderlands are good. Initial modelling work suggests that demand for groundwater from this sparsely populated region falls well below aquifer recharge rates. Furthermore, overall climate projections do not anticipate a significant net decrease in precipitation that would affect aquifer recharge. Still, further work is needed to understand the impacts of livelihoods shifts that may occur from more reliable access to water (e.g., expansion of irrigated agriculture or the increase of livestock in rangelands with water points), as well as from industrial developments such as oil exploration (and now production) in the GW4R areas in northern Kenya. Evolving water demand will have to be tracked to ensure that groundwater abstraction does not become unsustainable. Finally, concerns about water quality, specifically with regards to salinity and fluoride, may compromise the viability of certain sites or require the application of more expensive purification technologies.

3.4 Are interventions cost-effective and relevant to the broader donor environment?

3.4.1 Relevance of CIWA interventions

CIWA's contributions to GW4R's efforts to develop groundwater resources are clearly relevant to the HoA borderlands. As covered in the previous sections, the challenges associated with groundwater resource development are numerous. Many organisations have sought to develop groundwater in the borderlands with limited success. Cognizant of past failure, the World Bank has taken a different approach. Whereas past interventions have generally overemphasised infrastructure at the expense of service delivery, GW4R places a focus on the latter. The programme's investments in infrastructure nevertheless remain significant. With such resources being allocated to capital expenditure, there is a risk that attention is diverted to the success of individual water schemes while the broader transformative vision is lost. It is also imperative that GW4R work with other development actors towards this paradigmatic shift. While the partnership with UN agencies is a positive development, the site visit to Turkana suggested that cooperation with other stakeholders could be improved as it was unclear to what extent the World Bank coordinated with those who had originally built the boreholes that were being rehabilitated.

At the regional level, there is also a clear need for collaboration on transboundary waters. The HoA borderlands are notable for their transhumant communities meaning that both supply and demand for water move across national borders, making regional collaboration even more important. While regional cooperation remains nascent, CIWA's projects contribute to relevant initiatives that advance it such as the IGAD Water Forum. Efforts to foster a political commitment to collaboration are complemented by work to establish IGAD as the regional leader on transboundary water issues. At the AC meetings, the CIWA team reported that IGAD (as well as SADC-GMI) are being contracted as technical experts on forthcoming World Bank work on transboundary waters, a clear sign that capacity building efforts are taking root. Furthermore, lessons from the first phase GW4R are being applied to Phase 2 in Djibouti. As previously discussed, ensuring that capacity development and lessons learned are institutionalised is critical to ensuring that GW4R has a lasting impact. According to CIWA, efforts to capture this knowledge are underway so that learning rests not only with individuals, thereby strengthening prospects for replicating successes from GW4R in other contexts.

3.4.2 Cost-effectiveness of CIWA interventions

There is a fundamental tension between the way water is framed as a right in the Kenyan legislative framework, and how it is treated as a good through service delivery. There are potential solutions at a national level but these are beyond the control of CIWA. In Kenya, the right to clean water is enshrined as a constitutional right and reiterated in the national Water Act. Hence the fundamental tension between the way water is framed as a right in the legislative framework, and how it is treated as a good through service delivery. While donors are working to establish groundwater schemes as economically self-sufficient, the fact remains that marginalised communities in the borderlands simply do not have the means to fund them. With none of the models studied by UNICEF (2025a) achieving cost-recovery, financial sustainability is not a realistic prospect at the level of individual water schemes. The economic viability of groundwater schemes must therefore be assessed at wider scale – whether Kenya as a nation can mobilise its own resources to provide water for all its citizens. Given decades of historical marginalisation of northern communities, there is a significant gap between the status quo and universal access to water. Even with an ambitious vision, it appears unlikely that GW4R can make significant inroads towards that goal. Universal access to water remains a challenge across sub-Saharan Africa but there are still lessons to be learned from other models. For instance, Namibia effectively subsidises access to water in rural communities by charging higher tariffs in urban areas and to industrial users (Republic of Namibia, 2025). In the case of Kenya, the Equalization Fund is an existing mechanism that could be used to support the borderlands.

Despite the clear need for water in the borderlands, it is also necessary to consider the counterfactual to developing groundwater resources. From a social inclusion perspective, it seems unlikely that doing nothing would be better – even considering the possible adverse side-effects of groundwater schemes. Under the status quo, a disproportionate burden is placed on women who must often travel several kilometres to fetch water. However, boreholes may not always be the only solution so it is also necessary to consider alternative approaches. In locations near rivers, such as communities along the Turkwel River (and its tributaries) in Turkana County, nature-based solutions (NbS) to improving basin catchment may be applicable. Restoration work in the upper catchment area can reduce soil erosion and increase water retention, thereby mitigating against drought and flood risks (Interreg Central Europe, 2024). A comparison of the cost-effectiveness of groundwater schemes and NbSs is beyond the scope of this case study but it is still worth flagging that there may be other ways of supplying water to some parts of the borderlands.

Compared to groundwater infrastructure development, CIWA's upstream interventions are comparatively less capital intensive, though cost-effectiveness remains contingent on their downstream impacts. As discussed throughout the report, there are indications that CIWA-funded activities are contributing to regional dialogue, the generation of knowledge, and the sharing of lessons learned. This is apparent from both past work in Somalia and ongoing work through GW4R at the regional level. Additionally, CIWA-funded upstream activities

to site selection and procurement can be seen as mitigating potential risks and increasing the likelihood of GW4R's success, thereby improving efficiency and effectiveness in the long-term. However, findings from GW4R also point to a gap between work at the institutional level and the application of learning on the ground. Furthermore, learning is often held at the individual level and not embedded into the wider institutional memory. If CIWA's work can bridge this gap then prospects for cost-effectiveness are good, but areas of concern indicate that additional attention is needed to capitalise on the knowledge generated through the different workstreams.

3.4.3 Value for money summary assessment

Table 1 below highlights key findings for the CIWA-supported projects covered by the case study, per value for money (VfM) indicator.

Table 1: Key VfM findings for CIWA-supported work in the Horn of Africa per indicator

VfM indicator	Finding	Assessment	Strength of evidence
Economy	We did not manage to obtain budgets/expenditure, this was beyond the scope of this evaluation.	n/a	n/a
Efficiency	The lack of institutional memory and learning internally across phases of programming and with external actors in the same context has created bottlenecks that have reduced operational efficiency significantly. This is particularly the case when previous efforts have failed. There have been delays and overlooked social and environmental risks remain.	Limited	Medium
Effectiveness	There are indications that CIWA's previous activities in Somalia contributed to the World Bank's broader work in the Somali water sector. For the borehole schemes, due to the lack of past lessons being applied to present interventions, there is a risk that effectiveness continues to remain low, but it is still better to have these interventions than the counterfactual no intervention scenario – they are expected to provide some water access and benefits.	Medium	Strong
Equity	These interventions are designed to meet the needs of ultra marginalised communities. Whilst they do serve them, they are at risk of placing high financial burdens on those who can least afford them.	Medium	Strong
Sustainability	As explained above, in the absence of viable cost-recovery, financial sustainability of the boreholes interventions is not a realistic prospect at the level of individual water schemes. The sustainability of institutional level work is uncertain, with the Bank's processes undermining institutional memory and internal learning. In terms of strengthening the enabling environment, early results on enhanced regional collaboration, improved policy frameworks, and a shift towards holistic accountable delivery are promising but still uncertain given ongoing challenges, delays, and the need for continuous monitoring.	Low/Medium	Strong
Relevance	The ground water interventions meet direct needs of water access to marginalised communities, so they are relevant in that respect. However, the design, as discussed is not economically viable and may place burdens on the community. Arguably a nature-based solution to improve basin catchment in certain areas such as Turkana County may be more relevant in some contexts. However, the Bank's approach takes service delivery more	Medium	Strong

	seriously than other past actors, so the design is relatively more relevant in this regard.		
Cost effectiveness	With the continued use of the unviable community-based method for cost recovery, cost effectiveness remains limited. Although the high capital element and lower O&M element of the design renders these interventions more cost effective than other past ones by other agencies.	Low to Medium	Strong
VfM summary	It is too early to conclude on the overall VfM for CIWA's current work in the HoA because upstream work in support of GW4R is still being translated to downstream outcomes. However, as noted above, the earlier work in Somalia did contribute to improved institutional capacity. The above assessment is driven largely by the difficulties regarding the sustainability of borehole schemes, gaps in applying learning internally and externally, and the broader difficulties in providing affordable access to water for ultra marginalised communities. It must be noted that the challenging borderlands context continues to undermine progress.		

4.0 Key Learnings and Recommendations

4.1 Overall conclusions

On the aggregate, evidence from CIWA's work in the HoA paints a varied picture of progress. Evidence from each of our EQs is briefly summarised below:

- **EQ1 – How does CIWA contribute to regional transboundary water management in the HoA, within the FCV context that characterises the HoA borderlands?** CIWA-supported outputs directly contribute to regional capacity building, knowledge generation, and learning. However, there seems to be a gap in translating GESI and FCV learning to implementation in the context of GW4R. While there are signs of progress on regional collaboration, especially on groundwater, the case study generated only secondary insights on this outcome.
- **EQ2 – What are the long-term and downstream impacts of CIWA's upstream institutional support within the regional and local conflict context of the Horn of Africa borderlands?** Past support to the MoEWR in Somalia has translated to future work in the water sector and on transboundary collaboration, including through GW4R. While it is too early to assess the downstream impact of GW4R, the Turkana site visit raised concerns regarding internal learning, cross-programme learning, and the application of GESI and FCV guidelines.
- **EQ3 – Are interventions sustainable beyond CIWA's support?** Learning challenges and staff turnover threaten the sustainability of upstream capacity building work but efforts to institutionalise knowledge could mitigate these risks. Sustainability at the community-level remains to be seen but cost-recovery of groundwater schemes in the borderlands does not seem likely. However, GW4R could still have a lasting impact if the programme does not lose sight of its ambition for transformative change.
- **EQ4 – Are interventions cost-effective and relevant to the broader donor environment?** Supplying water to remote communities is not an economically viable endeavour in and of itself and should instead be viewed through the lens of including historically marginalised communities through systemic change across the wider enabling environment. At the regional level, CIWA's upstream work meets a clear demand for support to regional collaboration and could offer good value for money if downstream impacts are realised.

4.2 Key lessons

More generally, the case study offers the following cross-cutting lessons:

- ▶ Borderlands are an inherently challenging context but there is much to be learned from past interventions. Further work should be done to engage with other donors and non-governmental organisations active in the region to learn from past experiences and identify potential synergies. Oxfam's recent pilot in Turkana is a specific example that could offer lessons directly applicable to GW4R.
- ▶ Internal learning is also crucial as different lessons are being generated within each country context. While the case study focused on Kenya, the implementation experiences will differ in each country, offering rich opportunities for learning that should continue to be exploited through both formal and informal mechanisms.
- ▶ Findings confirm the need for a holistic approach to rural water service delivery. It is evident that water service delivery is not merely a question of infrastructure. New and rehabilitated boreholes cannot succeed solely through the latest technologies as there are various points of failure related to O&M. Institutional reform at all levels is needed if they are to last beyond a few years.
- ▶ Marginalised communities do not have the ability to pay financially viable water tariffs so broader political decisions must be made to improve access. Lessons from Namibia suggest that cross-subsidies at the national level can provide financially viable solutions to universal access to water. Namibia's community-level institutional arrangements could also inform lessons, where water paid in bulk - by Water Point Associations (WPAs) & Local Water User Associations (LWUAs) – and not by individual community members. However, this process is well beyond the scope of CIWA's control.

4.3 Recommendations

Based on the findings of the case study, we make the following recommendations:

Table 2. Recommendations based on case study findings

#	Recommendation	Target	Timeframe
1	Work towards regionally aligned national-level standards for groundwater projects. The World Bank team indicated that upstream processes such as site selection were much smoother in Ethiopia than in Kenya due to established guidelines for water schemes. Similar tools and processes could be developed for Kenya and Somalia drawing on lessons from Ethiopia. According to CIWA, work on harmonising standards and strengthening use of the MIS is underway.	GW4R partners	Short-term
2	Revisit the GW4R strategic vision based on implementation experience. There is a need to better articulate the role of groundwater in addressing fragility and enhancing resilience in the borderlands at all levels of programme. This includes developing a robust theory of change that applies a GESI and FCV lens to minimise the risk of adverse impacts on social inclusion and conflict. Additionally, there is a need to re-examine the cost recovery imperative of groundwater schemes as it relates to GESI, FCV and adverse environmental dimensions.	World Bank / GW4R partners	Medium-term
3	Apply lessons from other agencies working on groundwater in the area. In the case of Kenya, direct engagement with Oxfam is recommended to fully integrate lessons from their pilot on 'bundling' private sector O&M water scheme service providers.	World Bank / GW4R partners	Short-term

4	Work to capture learning generated through informal mechanisms. GW4R offers a platform for a wide variety of stakeholders from across the region and across the water sector to interact. Valuable learning is generated through these exchanges but is not always committed to institutional memory. Existing structures such as the MIS and regional learning events could be leveraged to aggregate informal learning so that it can be applied going forward.	World Bank / GW4R partners	Medium-term
5	Apply lessons to projects still in the preparation phase to avoid past pitfalls. As implementation progresses at an uneven pace, emerging learning should be applied to projects still in the preparation phase to avoid past pitfalls. This includes applying lessons on community inclusion in developing local organisational structures (in pursuit of conflict reduction) as well as on procurement, drilling and O&M. Existing mechanism, including those directly supported by CIWA through Untapping Resilience, should be leveraged to continue and further strengthen internal learning.	World Bank / GW4R partners	Short-term
6	Reconsider engaging graduate students to consolidate available data and improve its usability. According to a GW4R technical expert, plans to hire five PhDs to work through programme data were scrapped but there remains a need to consolidate all the information generated through the various programme components. Hiring graduate students to do this task could have the added benefit of generating additional public research. CIWA's ongoing engagement with academia, including in the context of GW4R, should make it relatively easy to set up such a scheme.	World Bank / GW4R partners	Short-term

Annex 1: Original ToR: Midline Phase 2 Case Study Concept Note: CIWA (Horn of Africa)

Background, scope and visit objectives

Following a discussion with FCDO, the five priority gaps identified during phase 1 of the midline evaluation were narrowed down to two main areas of interest (evaluation questions) for phase 2 of the midline:

4. CIWA's regional influencing role in transboundary water management, especially in sensitive and fragility, conflict, and violence affected (FCV) contexts.
5. The downstream and longer-term impacts of CIWA's upstream interventions. The Midline evaluation Ph1 report identifies three focus areas:
 - a. The extent to which investments influenced materialise into investments mobilised (and hence beneficiaries reached) and why;
 - b. Implementation, and subsequent results of policies and strategies and agreements supported by CIWA (existing reports describe activities rather than outcomes in these areas); and
 - c. Multiplier effects of CIWA's institutional strengthening work (e.g. when CIWA supported organisations subsequently lead on implementing a World Bank investment).

During a meeting with CIWA and FCDO, CIWA's work in the Horn of Africa was identified as the most suitable focus for the evaluation case study. CIWA has a longstanding presence in the region, working with various regional and national stakeholders to improve transboundary water management, develop water resources (especially groundwater), strengthen information systems, and promote regional learning. Additionally, CIWA's annual meeting will be held in Nairobi in November 2025, providing the ARCAN MEL Unit with an opportunity to directly engage with key stakeholders. The annual meeting will also include a field visit to borderlands communities in Turkana, Kenya where CIWA is supporting the development of groundwater infrastructure. Furthermore, CIWA suggested that the case study explore the impacts of CIWA's (2018-2021) support to the Somalia Ministry of Water (through the Support to Transboundary Water Resources Management project), which has yet to be researched in depth. Current and past CIWA projects in the region are summarised in **Error! Reference source not found.** below.

Table 3. Overview of CIWA projects in the HoA

Project	Allocation (\$)	Status	Overview
Untapping Resilience: Groundwater Management and Learning in the Horn of Africa's Borderlands	5,000,000	Closing 01/2026	- Supporting the World Bank's Groundwater for Resilience Programme - Component 1: Enhanced knowledge & learning in the Horn of Africa - Component 2: Enhanced institutional capacity on groundwater management
South Sudan Transboundary Waters Support Program (including additional financing)	2,000,000	Closing 05/2025	- Technical assistance to the Ministry of Water Resources and Irrigation to improve water resources management - Strengthening regional information exchange

Horn of Africa Groundwater Initiative	2,633,000 (+ 693,788 for World Bank technical assistance)	Closed	- Supporting knowledge generation on key issues including biodiversity, FCV, and gender - Support to the Intergovernmental Authority on Development (IGAD) to promote regional cooperation - Groundwater development and management, strengthening knowledge systems, building national and regional capacity, assessing potential investments
Strengthening Resilience in the Horn of Africa	1,397,954	Closed	- Analytical work to improve the knowledge base and institutional capacity to deal with climate shocks - Scope potential investments
Somalia – Support to Transboundary Water Resources Management	1,154,769	Closed	- Capacity building to the government of Somalia to strengthen regional dialogue, promote information exchange, and develop water resources - Support to the development of the Somalia National Water Strategy

The objectives of the proposed visit are:

- Map out the pathways linking CIWA's upstream activities to downstream impacts: This will build on CIWA's theory of change and FCV framework to map out the results chains for projects in the region.
- Evaluate CIWA's contribution: The case study will generate evidence to test CIWA's theory of change and better understand CIWA's impact in FCV contexts. Drawing on the priorities identified during phase 1, specific areas of focus include: 1) CIWA's regional influencing role in FCV contexts, 2) implementation and uptake of policies and strategies supported by CIWA, and 3) the multiplier effects of CIWA's institutional strengthening work. We are particularly interested in effectiveness and impact and expect that evidence gathered will contribute to our work on VfM and Transformational Change. Consequently, the report will focus on highlighting examples of sustained transformational change when appropriate.

Case study methodology

- **Overall approach**: We will use a theory-based approach with contribution analysis and process tracing techniques to identify impacts in the three focus areas and CIWA's role in delivering these. The existing midline evaluation questions (EQs) provide a high-level guide but additional specific sub-EQs will be developed.
- **Activity 1: Desk review**. The ARCAN MEL Unit will draw on existing documentation (including CIWA annual reports, learning briefs, and project progress reporting) to develop a regional theory of change for CIWA, review existing evidence, and develop data collection tools (e.g. semi-structured interview templates for each of the data collection activities below).
- **Activity 2: Primary data collection**. Data collection will comprise three key components:
 - The ARCAN MEL Unit will attend CIWA's annual meeting in Nairobi in November 2025. This presents an opportunity to learn more about CIWA's regional role in transboundary water management, learn from key projects, and engage with key stakeholders.

- ▶ The MEL Unit will participate in the field visit to Turkana that is planned as part of the annual meeting. This will provide insights into how CIWA's regional focus translates down to specific communities. It will also provide the MEL Unit further opportunities to engage with key stakeholders, including World Bank task team leaders.
- ▶ With CIWA support, we will identify key informants and undertake key informant interviews (KIIs) with Somali government officials and other relevant stakeholders that participated in CIWA's support to Somalia's Ministry of Water. As the CIWA project completed in 2021, we will need to invest some time in tracking down stakeholders with institutional memory.

Process and timing

The visit will be delivered in three phases: preparation; visit, and analysis and reporting. Each phase is briefly outlined below along with details on audience and use:

a) Preparation

- ▶ Meetings with FCDO and central CIWA team: the ARCAN MEL Unit will follow on meetings the with FCDO Pillar Lead and CIWA's MEL Unit to further refine the case study's scope and methodology, covering any concerns, issues, or areas of interest.
- ▶ ARCAN MEL planning: Once the focus of the case study been agreed upon, the ARCAN MEL Unit will work with CIWA to: i) identify and contract an experienced national consultant; ii) finalise a core set of questions covering key evidence gaps; and iii) develop a detailed fieldwork plan.
- ▶ Initial document review: As part of the preparation phase, the MEL Unit will conduct a desk review to consolidate existing data about CIWA's projects in the region, situate CIWA activities within the wider context, and assess how they relate to ARCAN's theory of change.
- ▶ Stakeholder identification: Based on the document review and discussions with CIWA, the MEL Unit team will compile a list of key stakeholders and develop relevant interview guides.
- ▶ Mitigation of risks and limitations: Many risks are mitigated by the fact that fieldwork activities will be organised by CIWA. However, supplemental data collection in Somalia is more challenging and the approach will be developed with the support of Altai's Nairobi office and network of Somali researchers. Depending on which stakeholders need to be interviewed and the current security situation in Somalia, it may be possible for the MEL Unit to travel to Mogadishu following CIWA's annual meeting. If travel is not possible, interviews will be conducted remotely and by the Somalia-based national consultant.

b) Fieldwork Plan

- ▶ A set of key informant interview (KII) guides and a detailed itinerary will be developed once the scope of the visit and questions have been defined and shared with FCDO for inputs. It is expected that the main fieldwork in Kenya and Somalia can be completed within a week by having one team member attend the CIWA site visit while the other travels to Mogadishu:
 - Day 1: Travel to Nairobi
 - Day 2: CIWA annual meeting

- Day 3: CIWA annual meeting
- Day 4: CIWA site visit (itinerary to be confirmed with CIWA) / Travel to Mogadishu
- Dec 5: CIWA site visit / Interviews in Mogadishu
- Day 6: CIWA site visit / Interviews in Mogadishu
- Day 7: Return travel

c) Analysis and Reporting

- ▶ Following the visit, the ARCAN MEL Unit will prepare a report detailing key findings and lessons learnt in line with the case study objectives. The report will be a maximum of 20 pages with a three page summary and annexes for additional details.
- ▶ A validation meeting will take place with CIWA to discuss findings.
- ▶ The draft report will be submitted to FCDO three working weeks after completion of the visit, following a validation discussion with CIWA. In addition, a short presentation will be offered to FCDO to discuss key findings, lessons, and recommendations immediately following the visit.

d) Audience & Use

- ▶ The intended audience for the case study report is the FCDO and CIWA. The exact dissemination strategy will be agreed with FCDO based on the findings but the report may be shared more widely if deemed useful and appropriate

Team

We set out below the necessary steps to proceed with this case study:

- ▶ **Gil Yaron (ARCAN Evaluation Lead):** Gil will oversee evaluation case study, ensuring alignment with the ARCAN evaluation approach and providing quality assurance on the case study report.
- ▶ **Bruce Mead (Water Sector Expert):** Bruce is a senior expert with Ecorys based in Zambia and will travel to Kenya to attend the CIWA annual meeting and participate in the associated field trip. He will contribute thematic expertise during the preparation, data collection, and reporting phases.
- ▶ **Eric Vaughan (Transboundary Water Pillar Lead Analyst):** Eric will lead the visit planning, in-country visit, analysis and reporting. He will also be responsible for designing the KII guides and for setting up meetings with the relevant IP counterparts and their stakeholders.
- ▶ **National Consultant:** An experienced Somali national consultant will support the team in organising meetings with key stakeholders in Somalia. They will also contribute contextual insights and participate in key informant interviews.

Annex 2: ARCAN Evaluation Framework

Evaluation Questions and OECD-DAC Criteria	Criteria and supporting questions	Evaluation Activity/ MEL Product/Data Source	Analysis
Relevance To what extent are ARCAN programmes' delivery country-led (i.e., responding to local community and national priorities) and strengthening national or community leadership, capacity, and commitment (in what ways, for whom – with specific focus on the most vulnerable including women/girls and other excluded groups - and in what contexts)? [EQ3]	ARCAN delivery is informed by and responds to local community and national needs, policies and priorities; including those specific to gender and social inclusion of the most vulnerable groups Programme delivery/design is sensitive and responsive to context, including: - ARCAN delivered in ways that is informed by and responds to (local and national) gendered needs and priorities, recognising differential starting points - ARCAN implementation builds and strengthens national/ community leadership, capacity and commitment - ARCAN adapts to changing needs and contexts - ARCAN implemented in ways that reflect needs of different social groups (most vulnerable including women/girls and other excluded groups), recognising different starting points on the basis of, inter alia, age, disability, indigeneity	Evaluation Midline/ Endline: Phase 1 - Document analysis building on programme documents, annual reports etc, external evaluations; context-specific literature - Select KIIs with FCDO (remote) Phase 2 - Continued document analysis - Select KIIs and FGDs (remote and in-country) - Interviews with FCDO/ IPs (process evaluation style questions) - Interviews with key external stakeholders [NB relevance refers to beneficiary and stakeholder needs, relevance to context, relevance to UK govt priorities]	Thematic Analysis Context Analysis Contribution Analysis
Efficiency 1. Are the ARCAN portfolio and programmes using resources efficiently and effectively to achieve their goals? [New overarching] <i>Key questions to help answer this EQ:</i> What are the opportunities to enhance efficiency and cost effectiveness across the ARCAN portfolio? (midline) [EQ8] What key lessons (positive and negative) have been learned from ARCAN's experience with regards to VfM that can inform the design and implementation of future portfolio programmes? (endline) [EQ10]	- How do the returns on investment compare to the ones proposed in the Business Case (ARCAN)? For programmes: design/ economic appraisal? - To what extent, and how, have resources been efficiently allocated between work streams? - How do the different cost effectiveness data from different pillars/ programmes compare? - What are the processes of compiling VfM data in the pillars/ programmes? - Are there adaptive management examples that drive VfM in programmes? - For those IPs with existing VfM framework/ reporting: how does VfM fit in the wider delivery frameworks (s)? - What kind of mechanisms exist in programmes to control costs and/ or maximise benefits? To what extent is there commitment to consideration of equity goals alongside effectiveness and equity, and what trade-offs are made?	Evaluation Midline/Endline: - Financial reporting from IPs - KIIs: Interviews with IPs, FCDO (remote and in-country) Evaluation: Portfolio VFM Deep Dive (Y2) Monitoring: Programme specific VFM case study; Building on Results Framework/ ARCAN VfM framework/ AR	Cost effectiveness data analysis (VfM indicators, results, other CE study findings from pillars, etc) Analysis of VfM case study findings Cost efficiency analysis Qualitative assessment on lessons learned

Effectiveness

2. How and to what extent does ARCAN contribute to strengthening people's resilience, improving management of natural resources, and increasing access to renewable energy, for the most vulnerable to climate change? For whom – with specific focus on the most vulnerable including women/girls and other excluded groups -and in what contexts? [EQ2]

Key questions to help answer this EQ, plus potential deep dive focus (ii-iv)– selecting three deep dives.

- i. How effective was the ARCAN portfolio at mobilising additional and or more effective climate- and nature-related investment, for whom, and in what contexts? (All IPs except FFF)
- ii. How, and to what extent, has the ARCAN portfolio contributed to the improved management of natural resources (particularly sustainable land management), for whom, and in what contexts? (CAFI, FFF)
- iii. How, and to what extent, has the ARCAN portfolio contributed to strengthened resilience of populations to climate shocks, for whom and in what contexts? (WISER, CIWA, FFF, AAAP)
- iv. How, and to what extent, has the ARCAN portfolio facilitated greater access to clean energy, for whom, and in what contexts? (SRMI, SEFA)

- Resource allocation processes/ mechanisms, including the extent to which equity is represented
- Cost effectiveness indicators from ARCAN VfM Framework

Delivery of programmes under thematic pillars – relevant outcomes and Programme ICF KPI results:

- Number of people supported to better adapt to the effects of climate change (ICF KPI 1)
- Number of people with improved access to clean energy (ICF KPI 2)
- Number of people (disaggregated by key GESI groups) whose resilience has been improved (ICF KPI 4)
- Volume of emissions reductions avoided/supported by ICF TA (ICF TA KPI 5)
- Finance mobilised (£) for climate change purposes (ICF KPI 11 & 12)
- Area under sustainable land management practices (ICF KPI 17)

Evidence for pathways to outcomes in the theory of change:

- Design and implementation of national and subnational plans, policies and strategies supported;
- Increase in no. of countries with regional, national, subnational (local) plans, policies, strategies, sectoral plans (energy, integration of climate, NRM etc)
- Innovation approaches embraced [e.g. ARCAN contribution to greater availability of innovative approaches and technologies to deliver positive impacts on poverty and the environment in sectors such as energy, natural resource management, agriculture, and environmental degradation]
- Capacity to access new and existing climate finance strengthened
- New investment mobilised for Climate (amount and extent, influence of ARCAN on new and existing funding)
- Improved natural resource management and protection including transboundary water
- Increased sustainable land management
- Improved availability and (capacity to) access and use of climate information

Evaluation Midline/Endline (sub-Q 3i):

Phase 1

1. Document analysis building on programme documents, annual reports etc, external evaluations; context-specific literature
2. Select KIIs with FCDO (remote)

Phase 2

3. Continued document analysis
4. Select KIIs and FGDs (remote and in-country case studies)
 - i) Interviews with FCDO/ IPs (**process evaluation style questions**)
 - ii) Interviews with key external stakeholders

Evaluation Deep Dives in order to confidently demonstrate what FCDO/ARCAN has achieved in relation to **OUTCOME 1** in the theory of change. Are the pathways to desired changing working or not? How, for whom and in what context? (**sub-Q 3ii-iv**)

Focus on socio-economic outcomes and impact: Who is expected to benefit? Has this been achieved? If so, how? If not, why not? What has been the contribution of ARCAN?

Contribute to the global evidence base on what works and what doesn't work in building adaptation and resilience to CC.

Suggested Deep Dives: 1) Energy; 2) Resilience; 3) Sustainable land management.

1. **Document analysis:** programme documents, annual reports etc, external evaluations; context-specific literature

2. In-country and remote data collection, primary and secondary data:

KIIs and FGDs (in-country and remote)

- a) Interviews with FCDO/ IPs
- b) Interviews with key external stakeholders (at all institutional levels)

Case Study approaches to focus on evidence gaps in the ToC through deep dives (thematic and contribution analysis)

Analysis of Monitoring data

Analysis of independent evaluations of ARCAN programmes

Meta-analysis and Synthesis (endline)

	• Use of climate data to inform investment decisions, programme focus etc • Improved resilience capacities (including climate adaptation) • Improved availability and access to clean energy <i>For all areas: Effectiveness-related outcomes reflect gender equality and social inclusion</i> <i>Unintended results and alternative pathways</i> <i>Enablers and barriers ('mechanisms' of change), including: Political economy factors (incentives, interests, beliefs, power of partners and external actors); contextual factors (economic, social, political will and commitment; funding; conflict risk etc)</i> <i>'For whom?': ARCAN portfolio contributes to gender equality and social inclusion</i>	Review and synthesis of upcoming IP independent evaluations: (2023: CAFI, WISER, 2024: SEFA – assume available for midline. 2024: CIWA – assume available for endline. Annual: AAAP) Endline Synthesis across deep dives and other primary and secondary data sources/evidence Building on Monitoring data. The monitoring overarching question is '<i>to what extent are IPs delivering against programme outputs and outcomes</i>'. This contributes towards answering a foundational evaluative question: are the conditions in place for activities to lead to desired/intended outcomes for those expected to benefit? 1. IP Monitoring Data/ Results Framework outcome data 2. Monitoring visits reports: progress report of project level implementation against IP ToC and project specific stories of change on IP progress (co-developed with IPs) 3. Programme-specific GESI and VfM case studies (in collaboration with IP)	
Impact	4.i KPI15 Scorecard: likelihood of transformational change. Drivers, Mechanisms, Barriers/Enablers: • Political will and local ownership: need for the change is agreed locally and the process is locally owned and inclusive. • Capacity and capability can be equitably increased: countries and communities have the capacities and capabilities necessary to bring about the change; • Innovation: innovative technologies are equitably piloted, with the potential to demonstrate new ways of doing things, which could lead to wider and sustained change; • Evidence of effectiveness is shared: approaches which have proved successful in one location are made widely available and lessons on their usefulness are credible and shared widely • Gender Equality and Social Inclusion: ARCAN programmes actively contribute to GESI by identifying and tackling barriers to gender inequality and social exclusion in formal institutions (e.g. policy) and informal institutions (practices), and working to transform power relations positively and support	Evaluation Midline/Endline: Phase 1 1. Document analysis building on programme documents, annual reports etc, external evaluations; context-specific literature 2. Select KIIs with FCDO (remote) Phase 2 3. Continued document analysis 4. Select KIIs and FGDs (remote and in-country) i) Interviews with FCDO/ IPs (process evaluation style questions) ii) Interviews with key external stakeholders Building on and validating Monitoring Data: M team working with IPs to track progress against key indicators including KPI15, and develop project-specific stories of change on IP progress (co-developed with IPs)	KPI15 scorecard analysis Thematic analysis of evaluation data Contribution Analysis Synthesis/ meta-analysis
	3. How, and to what extent have the ARCAN portfolio and programmes catalysed transformational change (for whom – with specific focus on the most vulnerable including women/girls and other excluded groups - and in what contexts)? (endline) <i>Key questions to help answer this EQ:</i> i. How and to what extent are ARCAN projects achieving (or where results not yet evident due to timeframes) likely to achieve transformational change? [KPI15] ii. Sustainability: How effectively do ARCAN programmes support sustainability of outcomes and impacts?		

Coherence

4. How and to what extent are ARCAN programmes contributing to complementarities, synergies, knowledge sharing and learning between within and beyond ARCAN, including through benefits from being more than the sum of their parts in the ARCAN portfolio? For whom – with specific focus on the most vulnerable including women/girls and other excluded groups – and in what contexts? [EQ6]

- collective action by marginalised people where appropriate.
- Leverage / create incentives for others to act: the costs of climate action are reduced to the point that acting on climate is a sensible decision for commercial firms, private individuals and governments. These cost reductions may need to be steep enough to overcome behavioural inertia;
 - Replicable: good ideas piloted by the ICF are replicated by others in the same country and more widely;
 - At scale: interventions (such as national, sectoral or regional programmes) that have sufficient reach to achieve institutional and policy reform, or drive down costs of technology deployment; ARCAN is tackling different levels of scale in concert.
- Equitable; recognising the reality of gender inequality and social exclusion, and ensuring that use of the approach is equitable and contributes to gender equality and social inclusion
- Sustainable: change is likely to be sustained once ICF support ends.
- 4.ii ARCAN programmes' contribution to fostering (inclusive and equitable) enabling environment including:
- i) Capacities
 - ii) Ownership
 - iii) Political Will
 - iv) Resources/ budgetary commitments of relevant stakeholders
- Increased regional, national and local collaboration and partnerships due to ARCAN
 - Key stakeholders draw from evidence and learning generated by the programme to support improvements in programming; examples of adaptive management based on programme-level learning. Learning shared formally and informally within and across IPs and outside of ARCAN. Drawing on learning from other programmes/the knowledge and experience of stakeholders at all levels
 - Complementarities: ARCAN Activities, projects, or policy efforts build on the strengths and account for the limitations of each other.
 - Synergy: The interaction of two or more ARCAN programmes such that the overall result is greater than the sum of its parts. Examples that

Evaluation Midline/Endline:

Phase 1

1. Document analysis building on programme documents, annual reports etc, external evaluations; context-specific literature
2. Select KIIs with FCDO (remote)

Phase 2

3. Continued document analysis
4. Select KIIs and FGDs (remote and in-country)
 - i) Interviews with FCDO/ IPs (**process evaluation style questions**)
 - ii) Interviews with key external stakeholders

Thematic Analysis

Contribution Analysis

programmes deliver more outcomes and impacts than working in isolation including : e.g. reaching more people; mobilising more finance than targeted, or delivery greater analysis than planned (e.g. WISER adding value to CIWA)

Annex 3: Case Study Evaluation Matrix

Evaluation Question	Sub-Questions	OECD DAC Criteria	Relevant Interviewee(s)	Key Sources for Document Review and data analysis considerations	Relevant TC Drivers and Mechanisms
1. How does CIWA contribute to regional transboundary water management in the HoA, within the FCV context that characterises the HoA borderlands?	What is CIWA's theory of change (ToC) in the Horn of Africa? What assumptions underpin the ToC / results chain? How is CIWA responding to drivers of fragility, conflict, and violence? What learning events have taken place? Is there evidence of uptake/application of regional learning? How is CIWA working to build capacity for transboundary water management?	Effectiveness; Impact; Relevance; Coherence	World Bank staff, sector experts, government officials, implementers, target communities	Programme documents, results reports, semi-structured interviews, field observations	Increasing collaboration and partnership; Enabling
2. What are the long-term and downstream impacts of CIWA's upstream institutional support within the regional and local conflict context of the Horn of Africa borderlands?	What is CIWA's role in advancing regional dialogue? How did CIWA support the development of Somalia's National Water Strategy? What challenges have been encountered? How are skills developed through CIWA support applied? How are skills / knowledge being institutionalised? How are lessons from past work being applied to current CIWA work?	Impact; Relevance; Coherence; Effectiveness; Equity	World Bank staff, sector experts, government staff, implementers, target communities	Programme documents, results reports, semi-structured interviews, field observations	Increasing collaboration and partnership; Enabling; GESI
3. Are interventions sustainable beyond CIWA support?	How was sustainability incorporated into project design? Is there evidence that intended changes have lasted beyond CIWA funding? How have lessons learned been scaled up / applied to other interventions?	Sustainability	World Bank staff, sector experts, government officials, implementers, target communities	Programme documents, results reports, semi-structured interviews, field observations	Scaling up; Incentives to act
4. Are interventions cost-effective and relevant to the broader donor environment?	Have activities been implemented efficiently? Are benefits likely to accrue to marginalised populations? Was the right amount of resources allocated to the right activities? Are there aspects that would be done differently in hindsight?	Relevance; Efficiency; Coherence; Equity	World Bank staff, sector experts, government officials, implementers, target communities	Programme documents, results reports, semi-structured interviews, field observations	Increasing collaboration and partnership;

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Annex 5: List of Interviewees

Organisation	Number of interviewees
Independent Consultant	1
University of KwaZulu-Natal	1
World Bank	4
Total	6

Annex 6: Ethics and Safeguarding

The approach has drawn upon key FCDO guidance in the document ‘DFID ethical guidance for research, evaluation and monitoring activities¹⁹’ (published in May 2019) and further guidance including: the FCDO Principles for Digital Development, the Social Research Association Research Ethics Guidance, OECD Quality Standards for Development Evaluation, United Nations Evaluation Group Ethical Guidelines, and the Integrating Human Rights and Gender Equality in Evaluation Guidelines. It has also adhered to the FCDO’s Leave No One Behind commitments, the International Development (Gender Equality) Act 2014, the UK Disability Inclusion Strategy, and the UK’s broader international commitments such as the Washington Principles. Furthermore, Ecorys is a member of the FCDO-supported Safeguarding Leads Network and is a signatory to the pledge to the private sector to collectively improve practice on safeguarding. All team members have been briefed on the relevant ethical and inclusion procedures for ARCAN.

Our primary data collection has included KIIs with project stakeholders – those directly engaged by ARCAN including programme MEL and research managers, FCDO pillar leads, implementing partners and downstream partners, and external stakeholders. For selected IP country case studies, where relevant we have conducted interviews or focus groups with intended beneficiaries of ARCAN programmes. We have reviewed fieldwork plans for ethical considerations and mitigated any risks, as well as ensuring compliance with the GDPR.

In person or virtual, our KIIs have all adhered to the following requirements:

- ▶ **Verbal consent will be required for interviews:** Informed consent has been sought from all informants. Information has included explaining to potential respondents the purpose and nature of the evaluation. An information note script has been read aloud before each KII/focus group discussion, covering the nature and purpose of the evaluation and explaining the approach to anonymity, confidentiality, and data protection. Respondents have not been obliged to participate, and this has been communicated to IPs and other organisations supporting the recruitment of respondents. We have ensured informed consent is obtained from all individuals before commencing interviews.
- ▶ **Anonymity:** The key ethical issue for the evaluation is protecting and managing the confidentiality of stakeholders. All engagement with stakeholders, including providing information related to the evaluation, has been done in a way that respects individuals and their confidentiality. No individuals have been identified by name in the report or in a way that would allow them to be identified from contextual information.
- ▶ **Data protection:** Data will be stored in accordance with Ecorys’ Data Protection Policies. As a registered data controller with the Information Commissioner’s Officer (Z5564761), Ecorys has a designated Data Protection Officer who is responsible for protecting data in line with General Data Protection Regulation (GDPR). Ecorys applies rigorous GDPR-compliant processes to ensure that all staff and participants are aware of how and why personal data are collected, used, and stored, and how long they will be retained for, and to ensure that data are collected only for valid purposes and kept only for as long as necessary.

Safeguarding

Safeguarding procedures for the ARCAN MEL contract are based on FCDO guidance, particularly the advice given in Enhanced Due Diligence: Safeguarding for external partners, and Ecorys’ and Altai’s Codes of Conduct. If it is decided that the evaluation will invite participation from potentially vulnerable individuals, the ARCAN MEL safeguarding procedures are intended to provide an appropriate and sufficient framework that ensures the wellbeing of those involved in the evaluation, including participants and potential participants, as well as members

of the evaluation team. ARCAN MEL Fieldwork Plans have been submitted along with our evaluation protocol to an internal ethics review panel, where required.

Key principles of our safeguarding approach include:

- ▶ **Protection and privacy of participants:** Methodological checks ensure participants cannot be identified with their responses or in any of the reports. This extends to all participants and to all topics, not just sensitive issues. Data collection takes place in private, and all data will be securely and appropriately stored – any physical data will remain with the researcher until it can be placed in secure storage; electronic data will be password protected. Sensitive personal data, for example gender, age, ethnicity, disability, religion will not be collected.
- ▶ **Informed consent:** Oral informed consent, obtained at the outset of KIIs, will empower participants to make informed decisions about engaging in the study by providing:
 - ▷ clear explanations of the aims and objectives of the study
 - ▷ potential risks associated with participation
 - ▷ clarity around voluntary participation and the right to withdraw from the evaluation
 - ▷ processes around any safeguarding issues including the role and contact details of the Designated Safeguarding Officers (DSOs)
- ▶ **Partnership:** It is our intention that the evaluation serves to further establish good relationships with stakeholders. They have been and will be consulted and informed about all evaluation activities. This is intended to promote acceptance of the evaluation across the IPs and DPs, and identify any emerging ethical or safeguarding issues.
- ▶ **Prompt investigation of issues:** DSOs at Ecorys and Altai will act in the event of any safeguarding issues being raised. The specific process to be taken in the event of safeguarding issues being raised are outlined in the Project Implementation Manual. We acknowledge that participants who wish to raise safeguarding issues may in principle be reluctant to notify the ARCAN MEL team, and so we will provide contact information for Ecorys DSOs who are not part of the core team and can rather act at 'arm's length' from the project.
- ▶ **Training:** All researchers/data collection staff attend training that addresses safeguarding and whistleblowing procedures. This covers handling disclosures, reporting allegations, confidentiality, and codes of practice and behaviour.

Ethical Approval

The ARCAN MEL Unit observes all guidelines and rules relating to the conduct of research and evaluation in the countries selected for in-country data collection. We seek ethical approval (or exemption as appropriate) for all primary data collection by writing formally to the relevant authorities in the relevant jurisdictions, where required. A study protocol describing the design and data collection, analysis, participant confidentiality and consent, and the study tools is submitted for review and approval as required. If ethical approval is required, formal responses from the relevant authorities approving data collection activities are a prerequisite for the evaluation data collection to proceed.

ARCAN MEL also abides with Ecorys internal policy guiding the conduct of research and evaluation.

Any proposals to carry out research with potentially vulnerable individuals require internal ethical approval. The evaluation protocol is in that case submitted to an internal ethics review panel for review and approval. The members of the ethics panel have independence from each project that they scrutinise. This enables them to put the participants at the centre of their review. The ethics panel reviews the protocol and provides feedback on the approach. The total process for internal and external ethical review exemption is expected to take around 2 – 4 weeks.

Annex 7: Use and Influence Plan

This will be discussed and finalised with FCDO following the submission of this report.