Embassy of the
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STRATEGIC SCOPING AND IDEATION FOR NETHERLANDS WATER PROGRAMMING IN KENYA (2026-2030)

IDEATION REPORT

by

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TABLE OF CONTENTS

EXECUTIVE SUMMARY

Kenya loses close to 0.9 per cent of GDP annually to inadequate water access, and the financing shortfall for water and sanitation stands at roughly KSh 466 billion against a KSh 995 billion requirement to meet 2030 targets (WASREB, 2025). Across licensed utilities, non-revenue water averages 44 per cent, representing 203 million cubic metres of treated water that generates no income and approximately KSh 11.9 billion in foregone revenue during 2024. The average tariff of KSh 105 per cubic metre remains below the unit delivery cost of KSh 114, yielding a cost coverage ratio of 98 per cent against the 110 per cent threshold that WASREB considers necessary to sustain existing service standards. At the basin level, projected demand in the Tana, Athi, and Ewaso Ng'iro systems will surpass available supply before 2030 under baseline demand and dry-climate scenarios (Joyce, 2024). These numbers do not describe a sector waiting for a single intervention to unlock its potential; they describe interlocking deficits in reliability, governance, and financeability that reinforce each other and that require a coordinated programme architecture to address.

Drawing on the evidence from the scoping study, the proposed response is a catalytic programme that could be developed from either of three identified Programme Areas, with explicit Theory of Change, results framework, and management structure. Programme Area 1 targets utility and secondary-town performance: non-revenue water reduction, billing reform, sanitation integration, and digital operational controls. Programme Area 2 targets ASAL basin resilience: WRUA governance, allocation enforcement, catchment restoration through the 3R framework (recharge, retention, reuse), and the conditions under which conflict-affected catchments can stabilize sufficiently for productive enterprise. Programme Area 3 operates as a transaction preparation and de-risking facility, converting concepts into investment-ready projects through feasibility funding, guarantee instruments, and lender-side technical assistance. The three Programme Areas are structurally interdependent: PA1 and PA2 generate the bankable systems and stable catchments that PA3 requires as its transaction pipeline, while WS3 unlocks the finance that WS1 and WS2 need for scaling.

Two geographic prongs reflect Kenya's dual operating reality. In ASAL basins, where water stress, intercommunal conflict, and the humanitarian-development nexus define the context, the sequence runs from governance reform through landscape restoration to enterprise activation, with each step being conditional on the preceding one holding. In growth corridors and secondary towns, where demand growth outpaces service capacity, the sequence runs from performance diagnostics through targeted investment to replication of validated models. Dutch additionality is concentrated in the connective space between policy and enforceable practice, between concept and bankable transaction, and between asset creation and sustained system performance, a space that multilateral banks, bilateral TA programmes, and UN agencies active in Kenya do not systematically address. The Netherlands brings tested experience from Water as Leverage, Blue Deal, and sponge-city initiatives, from IHE Delft and Wageningen's applied research, from MetaMeta's dryland restoration work, and from Vitens Evides International and the Dutch Regional Water Authorities' operational partnerships.

1. INTRODUCTION

This report marks a pivotal milestone in the strategic continuum from scoping to ideation. It represents a deliberate and evidence-based transition from diagnostic insight to investment opportunity grounded in the findings of the comprehensive sector analysis conducted under this assignment. This catalogue of interventions embodies a structured pipeline of investable programmes that are both technically sound and financially compelling. It is the outcome of a rigorous process of market mapping, institutional assessment and stakeholder consultation designed to bridge Kenya's policy complete yet delivery constrained water landscape. It is a proposal to meet the EKN's ambition to serve as a co-investment and innovation partner in water security, climate resilience and inclusive growth.

The preceding scoping exercise revealed systemic strengths and weaknesses shaping Kenya's water sector performance. While the sector is anchored in robust policy, institutional and regulatory frameworks, it continues to be limited by fragmented financing, underdeveloped revenue models, data deficits and uneven capacity at county and service provider levels. This analysis defined the strategic priorities for intervention, the need to de-risk investment, strengthen institutional delivery, embed digital transformation and build bankable financial ecosystems. The proposed programme areas emerge directly from the scoping study translating evidence into design. Each proposed initiative is an applied response to a diagnosed constraint.

The proposed interventions span the full spectrum of Kenya's water value chain and financing architecture. In translating scoping insights into action the proposals include ASAL multi-use infrastructure, rangeland restoration, WRUA strengthening, digital information systems, sanitation innovation and blended finance mechanisms. Some initiatives such as catchment-level restoration funds, off-grid sanitation systems and smart digital metering advance the transition toward a data-enabled, performance-based water economy. The investment pathways therefore operationalize the insights of the scoping study into a coherent investment-ready pipeline for the Netherlands and its partners. EKN is positioned as a strategic enabler and connective tissue of market transformation leveraging concessional resources, technical expertise and policy alignment to unlock finance at scale.

1.1 The evidence base

The standard diagnostic account of Kenya's water sector is well recorded in national strategy documents and donor assessments: rainfall is erratic and unevenly distributed, institutions are fragmented under devolution, and investment falls far short of estimated need. All of this is accurate, and none of it is sufficient for programme design. The analysis behind this framework therefore asks a sharper question: what are the binding constraints whose removal would unlock system performance, and whose continued presence explains why decades of investment have produced physical assets without durable service outcomes? Where can EKN and the Dutch private- and knowledge-sectors add most value with their expertise and the given budget envelope for the MACS 2026-2030? What are others "not doing" and why?

Kenya is classified as water-scarce with per capita renewable freshwater of approximately 542 cubic metres, and roughly 80 per cent of the land surface falls within the arid and semi-arid classification, receiving between 200 and 600 millimetres of annual rainfall (Government of Kenya, Vision 2030). At the basin level, the picture is more urgent. The Tana Basin faces projected water stress of 157 per cent under a baseline demand and dry-climate scenario, with recurring deficits between June and October requiring an estimated 4 billion cubic metres of storage capacity (Joyce, 2024). The Athi Basin, which encompasses Nairobi, Mombasa, and the country's principal industrial corridor, faces projected demand exceeding supply before 2030, with an estimated storage requirement of 2.4 billion cubic metres. The Ewaso Ng'iro, serving some of the most conflict-prone pastoral landscapes in East Africa, operates under conditions where fewer than 40 per cent of large abstractions comply with permit conditions (Waithaka, 2025). What the basin data consistently demonstrate is that improvements in irrigation efficiency and reductions in distribution losses can substantially decrease overall basin demand. Efficiency improvement, properly structured and verified, functions as a form of economic supply expansion, delivering improved reliability at lower cost and shorter lead times than constructing new abstraction and conveyance infrastructure (Joyce, 2024).

On the service delivery side, WASREB's 2025 performance assessment quantifies the consequences of operating without adequate financial and institutional underpinning. Non-revenue water averages 44 per cent across licensed utilities, equivalent to 203 million cubic metres of treated water generating no income and roughly Kshs 11.9 billion in foregone revenue. The average tariff of Kshs 105 per cubic metre falls below the unit delivery cost of Kshs 114, producing a cost coverage ratio of only 98 per cent against the 110 per cent minimum needed to sustain current standards, let alone finance expansion. WASREB has demonstrated that reducing NRW from 44 to 37 per cent would have a financial impact equivalent to raising the average tariff to cost-recovery level, an important finding since it shows that efficiency gains, properly structured, can substitute for tariff increases that are politically difficult and socially sensitive. Basic drinking water access has edged from 65.5 per cent in 2020/21 to 68 per cent in 2022/23, urban sewerage coverage from 27.7 to 32 per cent, and sanitation access to 67 per cent by 2022 (State Department for Water and Sanitation). These incremental gains, however, disguise a structural fragility: premature infrastructure deterioration is redirecting funds from development investment toward recurrent rehabilitation, eroding both public confidence and investor appetite.

1.2 Three binding constraints and their interaction

The sector's persistent underperformance traces to three constraints that amplify each other in a self-reinforcing loop. The first, and the one most often mischaracterized, is reliability. Water systems in Kenya fail not for want of aggregate water resources in most basins, but for want of dry-season availability at the point and time of demand. Storage is insufficient, catchments are degraded to the point where infiltration and baseflow have declined markedly, abstraction is weakly regulated, and dry-season management relies on ad hoc rationing rather than rule-based allocation (National Water Resources Strategy, 2021; Joyce, 2024). Irrigation systems underperform during planting windows, livestock systems collapse during extended dry spells, urban supply becomes intermittent in ways that destroy willingness to pay, and conflict intensifies during stress periods as allocation mechanisms prove unable to manage competing claims.

The second constraint is governance, and the critical distinction is between formal architecture and operational effectiveness. The Water Act 2016, the new Water Resources Regulations 2025, and the Water Services Regulations 2025 together provide a comprehensive legal framework. Roles are formally distributed across national government (policy and regulation), WRA (resource management), WASREB (service regulation), counties (service delivery), and WRUAs (local governance). The problem lies not in institutional absence but in institutional performance under stress. Monitoring infrastructure has deteriorated: the National Water Resources Strategy documents a marked decline in operational hydrometric and rainfall stations. The Basin Water Resources Committees, designed as the primary basin-level coordination mechanism, have never been operationalised (Waithaka, 2025). Only seven of twelve WRUAs in the Ewaso Ng'iro Basin meet minimum governance criteria, and the Water Sector Intergovernmental Coordination Framework remains, in Waithaka's assessment, significantly underutilized. Devolution has created new possibilities for locally responsive governance while simultaneously fragmenting authority in ways that make basin-level coordination harder, since water resources rarely follows county boundaries and the political incentives for cross-county collaboration are weak, particularly during election cycles.

The third constraint is financeability. The gap between the KSh 995 billion investment requirement identified by WASREB and the KSh 529 billion likely to be mobilized under current approaches leaves a shortfall of KSh 466 billion (Gok, 2024). Private investment is expected to contribute approximately KSh 395 billion, but this projection depends on conditions that do not yet exist at scale: verifiable utility performance data, credible cash-flow projections, transparent risk allocation, and lender familiarity with water-sector investments (WASREB, 2025). The KfW utilities funding market assessment found that capital exists domestically and internationally, with conditional interest expressed by Sidian Bank, National Bank of Kenya, Co-operative Bank, and KWFT during the scoping consultations. What prevents that capital from flowing is not its absence but the thinness of the pipeline of investment-ready transactions, the insufficiency of project preparation, and the absence of instruments that allocate risk in a way lenders can underwrite.

These three constraints form a loop. Unreliable water supply depresses service quality and willingness to pay, eroding utility revenue and institutional credibility, which deters the investment needed to improve systems, which leaves infrastructure ageing and governance arrangements underfunded, which allows the underlying resource base to degrade through uncontrolled abstraction and catchment deterioration, returning the system to low reliability. Every past intervention that broke only one link in this chain saw the gains absorbed by the remaining links within a few years.

1.3 Why previous interventions fell short, and what the evidence shows

The scoping consultations, the literature review, and the evidence from both the Strathmore University private sector workshop and the Laikipia catchment-level engagement converged on five explanations. The most consequential is an infrastructure-first bias in which physical assets were constructed in basins and service areas where allocation control, operational governance, and revenue systems were non-functional. In the Ewaso Ng'iro, new boreholes and storage structures attracted additional unmonitored abstraction, and net reliability gains were negligible or negative. WASREB's characterization of "stranded infrastructure" captures this pattern precisely: assets that deteriorate not from engineering failure but from the absence of the institutional and financial conditions for their operation. IOB's[1] own water-sector evaluation findings have consistently identified this pattern, noting that sustainability of water investments is weakest where governance and revenue systems are not addressed as integral components of the investment package.

Programmatic fragmentation compounds the problem. Governance support in one sub-basin, digital pilots in another, and enterprise incubation in a third have operated without connecting logic, producing scattered outputs with no cumulative system effect. The third explanation is the persistent weakness of the transaction pipeline, which the KfW market assessment confirmed: institutions have conditional interest in water-sector lending, but the pipeline of genuinely investment-ready transactions remains too thin to activate that interest. The fourth is the chronic underestimation of sanitation as an investment category. The scoping consultations established that over EUR 70 million has been mobilized through microfinance institutions and SACCOs for sanitation loans, and over one million Kenyans have demonstrated willingness to pay for improved sanitation services. Container-based sanitation, feacal sludge management, treatment-and-reuse, and circular economy approaches represent enterprise opportunities at precisely the scale where women-led and youth-led cooperatives can operate, and where Dutch expertise in decentralized sanitation constitutes a genuine comparative advantage. The fifth is the deployment of digital solutions without decision linkage: the Ngusishi WRUA's daily monitoring and public posting of abstraction data demonstrate how transparency sustains compliance, but in most settings data remain paper-based, disconnected from allocation decisions, and vulnerable to manipulation.

Lessons from earlier Dutch programming in Kenya reinforce these findings. Previous EKN-supported ASAL water programmes demonstrated that community-based water management can produce localized gains, but that those gains are difficult to sustain or scale where basin-level governance remains weak and where enterprise linkages are absent. The Blue Deal partnerships between Dutch and Kenyan water authorities have shown that operational twinning can transfer practical management skills, but that the impact depends on the receiving institution's willingness to act on recommendations. UNICEF's WASH programming in the ASAL counties has established extensive community infrastructure, while also documenting the recurrent challenge that infrastructure functionality declines within three to five years without sustained institutional and financial support. The World Bank's $200 million KWSLIP has demonstrated that large-scale watershed investment is feasible, but its ICR process has also documented the difficulty of ensuring that watershed gains translate into downstream service reliability without effective governance at the basin interface.

1.4 Where Dutch support should sit Dutch unique value proposition

The diagnosis points toward a narrow but high-leverage positioning for Netherlands. The Netherlands should not replicate MDB-scale infrastructure, where the World Bank (KWSLIP at

[1] IOB= Directorate of International Research & Policy Evaluation

$200 million, Coastal Water Supply at $350 million) and the AfDB occupy established positions. It should not spread general technical assistance across every sub-sector, where other development partners already operate with considerable reach. What no actor currently addresses at adequate scale is the **connective tissue** between policy and enforceable practice: the governance enforcement that protects infrastructure investments from capture and degradation, the transaction preparation that converts promising concepts into bankable projects, and the performance verification that builds the utility credibility on which commercial lending depends. The programme areas are designed to deploy experience where it can produce the highest leverage and to avoid dispersing effort across areas where other donors and development partners are already present in strength.

1.5 Scope boundaries

The identified programme areas will not finance large dams or national bulk water infrastructure, subsidize recurrent utility operating costs, support digital platforms without a defined decision-making use case, operate in locations already receiving large-scale infrastructure financing from multilateral banks, or expand beyond defined geographies without verified evidence that the initial causal chain is delivering expected results. These exclusions exist to meet IOB's requirement for clear scope, to ensure that Netherland's limited programme budget and supervision capacity are concentrated rather than dispersed, and to reflect the consultation evidence that Dutch additionality is highest in the catalytic and preparatory space rather than in direct infrastructure construction or service delivery.

2 THEORY OF CHANGE

This Theory of Change functions as the management instrument governing how resources are allocated, how interventions are sequenced, and under what conditions the programme area scales successful approaches, adapts failing ones, or withdraws from contexts where the causal assumptions do not hold true. It is not a retrospective justification or a presentation device, and every commitment of funds must trace to a testable link in this chain. A causal framework that cannot be confronted with evidence and found wanting provides no basis for adaptive management.

2.1 Impact statement

By 2030, Netherlands-supported programming contributes to measurably increased water security, reduced water-related conflict and expanded inclusive economic opportunity in Kenya's ASAL basins and growth corridors through water and sanitation systems that are more reliable, better governed and credibly financeable.

2.2 Five preconditions for impact

The stated impact materializes only when five conditions are met, each strengthening the platform for the others. Dry-season water supply must become reliable enough for domestic, productive, and environmental needs, achieved through storage, recharge, and enforceable allocation rather than through aggregate annual rainfall. Allocation rules must be monitored, enforced, and accepted as legitimate by water users, since codification in statute has proven insufficient where enforcement capacity is absent. Water access must translate into productive economic activity, supporting irrigation, livestock, sanitation enterprise, and secondary-town growth, given that communities will not sustain stewardship behaviors without tangible economic returns. Utilities and water enterprises must generate verifiable cash flows and manageable risk profiles, since the KSh 466 billion financing gap cannot be closed from public budgets alone. And operational decisions must be informed by real-time data and institutional learning, since a facility that cannot self-correct in response to its own performance evidence fails IOB's testability criterion.

2.3 Results chain

Level	What must be demonstrated
Impact	Fewer water-related disputes in target catchments; stronger household resilience; improved dry-season service reliability; restored ecosystem function verified by remote sensing
End outcomes	Year-round water and sanitation services used by households, farms, and enterprises; enterprise growth among women and youth; basin stability through reduced abstraction conflict and maintained environmental flows
Intermediate outcomes	Allocation rules enforced across target WRUAs; utility NRW and collection at specified thresholds; catchment buffering measurably

	improved; 8 to 12 prepared transactions approaching financial close; digital evidence embedded in at least 4 public agencies
Outputs	WRUAs with enforcement tools, master meters, customary governance integration; district metering in target utilities; 3R restoration clusters verified; feasibility studies at lender standard; digital dashboards feeding documented decisions
Activities	WRUA governance support (Naapu elder integration); NRW diagnostics; billing reform; 3R works (sand dams, sub-surface dams, retention bunds, rangeland regeneration); feasibility funding; guarantee structuring; lender TA; sanitation chain development; digital deployment; Maji Innovation Fund

2.4 INTERVENTION LOGIC BY PROGRAMME AREAS

2.4.1 PROGRAMME AREA 1: GROWTH CORRIDORS AND SECONDARY TOWNS PERFORMANCE

The causal logic runs from operational performance improvement through financial credibility to investment readiness. WASREB's evidence supports this chain directly: reducing NRW from 44 to 37 per cent generates the same financial gain as raising tariffs to cost-recovery level, meaning that efficiency improvement, properly structured and independently verified, constitutes a form of economic supply expansion that avoids the political sensitivity of tariff adjustment. The facility commissions independent NRW audits in three to five target utilities and installs district metering areas with pressure management, enabling management for the first time to identify verified loss points and redirect maintenance budgets to leakage zones. It overhauls billing systems and customer databases, deploys meter-to-cash digital platforms, and cleans dormant connections so that revenue records become accurate, auditable, and reconcilable against production data. It maps sanitation service chains in target secondary towns, designs feacal sludge management systems drawing on Dutch decentralized sanitation expertise (Aqua for All, FINISH Mondial, Omiflo's floating green filter technology), and develops business models so that counties and utilities can see the investment case for sanitation as a revenue-generating enterprise category. Operational dashboards linked to SCADA, billing, and customer management systems shift service management from reactive to evidence-based.

The binding rule: no capital investment proceeds until the diagnostic phase has demonstrated that the target utility is willing and able to act on findings. Willingness is tested by the utility's operational response to initial recommendations within six months. Ability is tested by the presence of a functioning board, a ring-fenced budget, and at least basic data infrastructure. Utilities failing either test are exited; the facility moves to the next candidate.

Sanitation: technology, demand, and differentiated pathways

The scoping exercise produced one of its most significant findings on sanitation: the sector has moved beyond the pilot stage into demonstrated commercial viability. Over EUR 70 million has been mobilized through microfinance institutions and SACCOs for sanitation loans, and over one million Kenyans have demonstrated willingness to pay for improved services (FINISH Mondial Kenya). The main instruments driving this, sanitation loans for toilets, pits, and feacal sludge management, credit guarantees, blended finance to mitigate risk, and support to sanitation SMEs for design, construction, treatment, and reuse, have proven replicable. Guarantees and Output-Based Aid show strong potential, with subsidy disbursed only after verification of toilets built or FSM units operated (KII: Banks and SACCOs, including NBK, Sidian, Co-op, KWFT, Water.org). The question for the facility is not whether sanitation is investable, the evidence is clear that it is, but how to design interventions that match the radically different conditions across the programme's two prongs.

ASAL sanitation: dignity, health, and adaptation under scarcity. In the frontier counties, sanitation challenges are shaped by water scarcity, dispersed settlement patterns, seasonal mobility of pastoral populations, and the near-total absence of conventional sewerage. Container-based sanitation systems, dry pit technologies suited to arid soils, and ecological sanitation (ecosan) approaches that require minimal or no water for flushing represent the most appropriate technology tier. Safe disposal and reuse are critical: without FSM infrastructure, pit latrines contaminate shallow groundwater, the same resource that communities depend on during droughts. SNV and FINISH Mondial's evidence documented an incomplete sanitation chain in ASAL contexts, strong in containment but weak in emptying, transport, treatment, and reuse, with limited integration into water resource governance and credit exclusion for rural and poor populations. The programme response is to treat sanitation investment as a prerequisite for water quality protection: without safe faecal sludge management and reuse systems, the very catchments being restored under WS2 face continued contamination, eroding the gains from upstream governance and 3R restoration. Sanitation financing in ASAL contexts will require smart subsidies blended with microfinance, structured through SACCOs and women's savings groups, and linked to enterprise models where sludge collection, composting, and biochar production generate income for youth and women operators.

Secondary-town and peri-urban sanitation: enterprise, circularity, and urban resilience. In growth corridors and secondary towns, the technology tier shifts to faecal sludge management at scale, small-bore and simplified sewerage in denser settlement clusters, and treatment-and-reuse facilities that convert sludge into biochar, compost, or treated effluent for peri-urban agriculture. The circular economy logic is well established in the consultation evidence. Omiflo's Floating Green Filter System, deployed through AWSE, turns wastewater into energy, animal fodder, and reuse water, embedding waste treatment into landscape restoration and income generation for youth and women through nurseries and biogas production (AWSE/Omiflo consultation). Corporate actors including Coca-Cola and East African Breweries Limited already link water efficiency with waste reduction and circular economy initiatives, pointing toward reuse markets for composting and biogas that can serve as off-take partners for treatment facilities. These findings position sanitation as investable environmental infrastructure that merges technology, circular economy, and green-jobs creation with the earning-capacity objectives of the MACS 2026-2030.

Creating social demand. Sanitation demand does not generate itself, particularly in settings where open defecation is normalized or where the costs of poor sanitation are invisible to households. The FINISH Mondial approach demonstrates that demand creation requires concurrent investment in community-led awareness, institutional sanitation (schools, health facilities, markets) that makes improved sanitation visible and aspirational, and accessible finance, typically through SACCO-administered loans of KSh 20,000 to 100,000 that households can repay over 12 to 24 months. Menstrual hygiene management facilities in schools and health centres serve a dual function: they address a genuine and urgent need, and they normalize the expectation that institutions provide sanitation services to a standard, creating social pressure on adjacent households and settlements. Institutional sanitation in ASAL towns where coverage is extremely low represents an early-delivery entry point that does not depend on enterprise conditions being met.

Sanitation governance. The consultation evidence identified a governance deficit specific to sanitation: weak enforcement of sanitation bylaws, diffuse authority between county health and water departments, absence of clear tariff or service standards for FSM operators, and limited data on sludge quantities and treatment outcomes (SNV/FINISH Mondial). The proposed response is to professionalize private operators under county contracts or WRUA-linked service agreements, embed digital monitoring to verify safe containment and reuse (mobile reporting, IoT flow meters), and ensure that WASREB's new Water Services Regulations 2025, which define commercial viability to include sanitation, are applied at the county level. SACCO digitization, as demonstrated by Bestrock and K-Unity using Microsoft Dynamics 365 for loan management, creates real-time access to sanitation finance records and supports credit scoring that links household repayment history to expanded lending. SNV's digital mapping of rural sanitation coverage strengthens targeting and regulatory compliance. The Dutch Digital Twin concept, integrating sanitation data into catchment hydrological models, links water-quality analytics to investment risk modelling, completing the catchment-to-tap framework that FINISH Mondial has advocated.

2.4.2 PROGRAMME AREA 2: ASAL BASIN RESILIENCE

Governance reform comes first in this workstream for a specific operational reason: without functioning allocation control, every subsequent investment in infrastructure or enterprise is vulnerable either to resource capture by powerful abstractors or to conflict among competing users. The Ngusishi WRUA in the Upper Ewaso system provides the most concrete demonstration of what functional governance looks like when it works. Ngusishi replaced 122 individual intakes with a single common intake, reserves 30 per cent of spring flow for ecological needs, monitors abstraction daily through a master meter system, deploys trained water scouts, and resolves roughly 95 per cent of disputes amicably through a mediation process that blends statutory authority with the customary legitimacy of the Naapu Council of Elders, whose moral authority and capacity for rapid mobilization succeed in regulating behaviour where state coercion alone does not. That is one WRUA in one sub-catchment within a basin where only seven of twelve WRUAs meet minimum governance criteria and fewer than 40 per cent of large abstractions comply with permits.

Landscape buffering through the 3R framework follows governance, since enforceable allocation alone cannot create water where the physical landscape has been degraded beyond its capacity to retain rainfall. MetaMeta's field evidence from Kenya and Ethiopia, combined with IWMI's hydrological modelling, established that ASAL stability requires distributed buffering at catchment scale: sand dams, sub-surface dams, rock catchments, retention bunds, rangeland regeneration, and riparian protection that retain more rainfall in soils, shallow aquifers, and vegetation. Enterprise activation, encompassing honey production, opuntia bio-enterprise, small-scale irrigation, livestock value chains, and sanitation services, comes last and only where the first two conditions hold. The ASAL consultations returned consistently to the observation that restoration which yields no tangible household income will not be maintained by the communities on whom maintenance depends, a finding also documented by CGIAR's drylands research programme and by UNDP's resilience programming in the Horn of Africa.

The binding rule: no enterprise or infrastructure investment until WRUA governance is operational and at least one season's monitoring data confirms that allocation rules are holding. If governance fails in a target catchment despite sustained support and political engagement, the facility will reallocate to catchments where institutional conditions are more favorable.

2.4.3 PROGRAMME AREA 3: TRANSACTION PREPARATION AND DE-RISKING

The sector's history offers a consistent and dispiriting pattern. Governments and NGOs secure project funding, construct infrastructure, deliver training workshops, and close the project office. What remains in most cases are evaluation reports and dilapidated infrastructure. Roughly 30 per cent of water infrastructure across Sub-Saharan Africa is non-functional at any given time (Joyce, 2024, p. 42), not for want of engineering quality but for want of the revenue streams, paid operating staff, and economic incentive structures that keep systems working once the project vehicle has departed. The ASAL consultations returned to this observation with unusual force: communities will not maintain restoration structures, protect recharge zones, or sustain allocation discipline if the only reward for doing so is institutional approval from a distant county office. What changes that calculus is enterprise.

The logic is specific and grounded in field evidence from the scoping process. Along the water and sanitation value chain, every functional service creates paid work and generates revenue that anchors a constituency with a direct financial stake in system performance. A WRUA water scout is not merely a governance instrument; the scout holds a paid position that disappears if the WRUA collapses. A feacal sludge management operator in a secondary town is not merely providing a sanitation service; the operator runs a business whose revenue depends on continued household demand and on the treatment facility remaining open. A women's honey cooperative in the Upper Ewaso does not maintain recharge bunds out of environmental consciousness; the cooperative maintains them so that flowering vegetation survives the dry season, pollination continues, and the honey harvest remains commercially viable. FINISH Mondial's experience in Kenya has demonstrated this dynamic by positioning women as protagonists in bio-enterprise and sanitation financing, tying disbursement and grant matching to gender-balanced governance committees, and showing that enterprise participation shifts the politics of water management from obligation to self-interest (FINISH Mondial Kenya; AWSE consultations).

The WaterNet and World Bank evidence on sanitation enterprise in Kenya makes the point starkly. In settings where SMEs were trained to manage the full sanitation value chain, from toilet construction through sludge collection, transport, treatment, and resource recovery, service reliability improved and long-lived sanitation businesses emerged over a ten-year period. Where infrastructure was provided without enterprise management, the infrastructure failed within three to five years. The consultation record phrases this as a design principle: sanitation systems must operate as commercial and institutional ecosystems, not as fragmented hardware projects (WaterNet/World Bank; SNV/FINISH Mondial). The same principle applies across ASAL livelihoods, where opuntia bio-enterprise, small-scale irrigation, livestock aggregation, and water service micro-enterprises create the economic rationale for stewardship that no amount of awareness-raising can substitute.

What this means for programme design is that enterprise development is not a third-phase add-on to be considered once governance and infrastructure are in place. Enterprise preparation, including cooperative formation, market assessment, off-take identification, working capital design, and business model testing, must begin during Phase 1 alongside governance strengthening, even though enterprise activation itself is conditioned on governance and reliability milestones being met. The Annex 2 budget for enterprise support (EUR 400,000 within the WS2 envelope) reflects this sequencing: scoping and preparation in Phase 1 to 2, activation in Phase 3 where conditions hold. The facility's binding rule, that no enterprise investment proceeds until governance is operational and at least one season's data confirms allocation rules are holding, protects against premature activation. But the preparation work that makes activation possible once conditions are met cannot wait. Existing SMEs operating in the region can also apply for potential matching grant support – under certain eligibility criteria – under the new Maji Innovation Fund.

In the growth corridor and secondary-town context (WS1), enterprise plays a parallel role. Sanitation enterprises, water kiosk operators, meter readers and maintenance technicians operating under utility or county contracts, and FSM service providers all create employment and revenue streams whose persistence depends on the continued functioning of the water and sanitation systems they serve. Prepaid meters and automated water kiosks, already operational at scale through providers like Maji Milele and Grundfos Lifelink, convert water access into traceable revenue streams that simultaneously improve collection rates for utilities and generate income for local operators. The programme frames enterprise not as a social objective separate from the technical intervention but as the mechanism through which technical improvements become self-sustaining.

De-Risking, Financial Crowd-In, and Building on Kenya's Digital Finance Revolution

The consultation evidence on Kenya's financial landscape reveals an unusually favorable starting position for crowd-in that the facility should actively exploit. Kenya is not a country where financial infrastructure needs to be built from scratch. It is a country where M-PESA processes over KSh 35 trillion annually, where 83 per cent of adults hold mobile money accounts, where SACCOs manage savings and lending for over 14 million members, and where the table-banking model, women's savings groups that meet weekly to pool and lend from collective deposits, has reached millions of households in both urban and rural settings and been amplified by mobile money integration to a degree unmatched anywhere else on the continent. The water sector's failure to attract private capital at scale is not a reflection of financial sector weakness; it is a reflection of the sector's own inability to present investment-ready opportunities that the financial system can process.

The KfW utilities funding market assessment confirms this assessment. An integrated turnaround approach, combining technical assistance with structured financial instruments, can shift lender risk perceptions. Sidian Bank, National Bank of Kenya, Co-operative Bank, and Kenya Women's Finance Trust have introduced or considered specialized WASH finance products. Consultations found these institutions are conditionally willing to lend to the water sector if guarantees reduce risk, feasibility studies meet credit standards, and digital data allows real-time monitoring of borrower operations. Bank-NGO partnerships mixing technical assistance with financial products, exemplified by Aqua for All and Water.org's collaboration with Kenyan lenders, have already demonstrated that the blending of concessional risk absorption with commercial lending requirements can produce transactions that work for both social outcomes and financial returns.

The Water Sector Trust Fund provides a concrete precedent for what catalytic public investment can achieve when properly structured. WSTF has mobilized more than USD 25 million in private and commercial investment, delivering improved water access for over 300,000 people (WSTF Impact Assessment). Results-Based Financing and Output-Based Aid frameworks connect subsidy disbursement to independently verified service outcomes, such as new household connections or operational water kiosks, maintaining delivery incentives while containing upfront capital risk. The instruments are proven. The lesson from WSTF, and the design principle for WS3, is that the facility's role is not to provide capital, it is to create the conditions under which capital that already exists in Kenya's financial system can flow into the sector with confidence.

The crowd-in architecture therefore operates at three levels. At the first level, the project preparation facility removes the preparation bottleneck by funding feasibility studies, environmental and social assessments, financial models, and business plans to a standard that credit committees can process. Cost-sharing at 75/25 between the facility and the project sponsor tests sponsor commitment early and filters out concepts that lack genuine ownership. At the second level, the first-loss and guarantee window absorbs 20 to 40 per cent of lender downside risk on initial transactions, a level calibrated to be sufficient to shift lender behaviour without creating subsidy dependency. The design draws from the KGGTF and FMO precedents in the East African region, and from the OBA model that has already been applied to sanitation through the disbursement of subsidy post-verification of toilets built or FSM units operated. At the third level, lender-side technical assistance embedded for 12 to 18 months within two to three partner institutions builds the sector-specific appraisal tools, cash-flow analysis frameworks, and post-disbursement monitoring protocols that enable water and sanitation lending to become a standard product category rather than a special initiative requiring external subsidy. The goal is that by Year 5, at least two Kenyan financial institutions can assess a water utility's or sanitation enterprise's creditworthiness independently, without programme-funded technical assistance.

Digital finance infrastructure is a cross-cutting enabler that the facility should leverage rather than build. Prepaid water meters and automated kiosks, deployed at scale by Maji Milele, Grundfos Lifelink, and others, convert water access into traceable digital revenue streams that simultaneously improve utility collection rates and generate the transaction data that lenders need for credit assessment. SACCO digitization platforms, including the Bestrock and K-Unity deployments using Microsoft Dynamics 365, create real-time access to loan management data that supports credit scoring for sanitation and water enterprise lending. Water.org's WaterCredit data pipelines enable evidence-based donor-bank performance tracking. Equity Group's Maji Loans have demonstrated that a mainstream commercial bank can integrate water lending into its retail product suite when digital data reduces the information asymmetry that otherwise makes small-ticket water loans uneconomic. The facility's role is to connect these existing capabilities to the water and sanitation investment pipeline, not to create parallel financial infrastructure.

What distinguishes this financial crowd-in strategy from generic blended-finance programming is its specificity to Kenya's institutional context. The approach builds on what already works: M-PESA-enabled payment systems that eliminate cash handling and improve revenue transparency; SACCO structures that reach deep into communities where commercial banks do not operate; table-banking groups that have demonstrated collective savings discipline at a scale relevant to household sanitation investment; OBA mechanisms already tested in the Kenyan WASH sector through WSTF; and commercial lender interest that is conditional but real. The facility does not need to convince Kenya's financial sector that water is investable in the abstract. It needs to present specific transactions with bounded risk, digital performance visibility, and verifiable cash flows that the financial sector's existing infrastructure can process.

2.5 Assumptions, evidence, and consequences of failure

Assumption	Evidence basis	If this assumption fails
WRUAs can reach functional enforcement within 18 to 24 months	Ngusishi achieved this; 3 to 4 other Ewaso WRUAs show partial progress. IOB water evaluations note localized success where intensive support is sustained.	Governance collapses in that catchment; facility reallocates to viable catchments and documents conditions of failure for DGIS.
Target utilities will act on diagnostic findings within 6 months	IBNET and GIZ ProWas: 60 to 70% of willing utilities improve NRW within 2 years given sustained TA. WASREB data confirm efficiency gains equivalent to tariff increases.	Those utilities are exited and replaced with willing candidates. Diagnostic costs recorded as learning expenditure.
De-risking instruments attract private capital	Sidian, NBK, Co-op, KWFT expressed conditional interest. KfW assessment confirms integrated turnaround can shift perceptions. KGGTF and FMO regional precedents.	WS3 pivots to results-based public finance. Market failure documented for DGIS.
Restoration improves dry-season availability	MetaMeta/IWMI evidence: 5 to 10 year lag for full response,	Restoration paired with engineered distributed storage for

within programme period	leading indicators within 2 to 3 years. CGIAR drylands programme confirms.	immediate gains. Leading indicators (NDVI, soil moisture) tracked.
Digital systems change actual decisions	Ngusishi's data posting sustains compliance. Most common failure mode is institutional inertia (IOB data-for-development findings).	Digital outputs embedded in mandatory workflows; entities with <50% adoption after 18 months lose digital investment.
County and national mandates can be coordinated for basin-level enforcement	Water Act 2016 framework exists; BWRC not operationalised (Waithaka 2025). Devolution creates overlapping jurisdiction.	Facility operates only in catchments where county-WRA coordination is demonstrated during Phase 1; others excluded.
Political incentives do not actively obstruct governance reform	2027 election cycle creates heightened risk. County executives may shield connected abstractors.	Pre-negotiated political compacts are first defense. If compacts fail, facility withdraws from that county and documents political economy for DGIS.

3 DUTCH POSITIONING AMONG DEVELOPMENT PARTNERS

Kenya's water sector is not characterised by a lack of donor engagement; rather, it reflects a concentration of support at the upstream (policy) and downstream (infrastructure financing and service delivery) ends of the value chain, with a persistent gap in the catalytic space that links the two. Substantial investments are already in place, including the World Bank's Kenya Water Security and Climate Resilience Project (KWSLIP) (USD 200 million) and the Coastal Water Supply Project (USD 350 million), alongside urban water lending by the African Development Bank, WASH programming by UNICEF, sector-wide technical assistance from GIZ, sub-sector interventions by USAID, and targeted support to secondary-tier water service providers by DANIDA. These actors occupy well-established and complementary roles within the sector.

Despite this extensive engagement, a structural gap persists at the interface between policy commitments and operational outcomes. Specifically, the sector lacks a clearly mandated and resourced actor to operate in the "missing middle" which is the space concerned with translating policy and infrastructure investments into sustained utility performance and credible investment opportunities. This gap manifests in four critical areas:

(i) Transaction preparation including the development of bankable project pipelines;
(ii) Governance enforcement particularly ensuring that regulatory frameworks are reflected in utility-level decision-making and accountability;
(iii) Performance verification through independent validation of operational improvements such as NRW reduction and revenue gains;

(iv) Market structuring whereby the technical, financial, and institutional conditions are established to enable private capital to participate at acceptable levels of risk.

The absence of a strong catalytic function in these areas constrains the sector’s ability to convert existing public and donor investments into financially sustainable and scalable service delivery models. It also limits the capacity of utilities particularly in secondary towns to transition from operational fragility to investment readiness.

It is within this high-leverage gap that the Embassy of the Kingdom of the Netherlands (EKN) positions its intervention. The EKN’s role is explicitly catalytic, focusing on strengthening the link between operational performance and financial credibility and on structuring the conditions required for investment readiness. This includes supporting utilities to demonstrate verified performance improvements, improving governance and financial systems, and developing credible, de-risked investment pipelines that can attract both public and private financing.

Donor coordination is operationalised through the Water and Sanitation (WATSAN) Development Partner Group which serves as the primary platform for alignment across partners. This is complemented by quarterly mapping of ongoing and planned investments particularly within targeted geographies and utilities to prevent duplication. The quarterly mapping also aim at identifying complementarities and ensuring that EKN-supported interventions are strategically positioned within the broader ecosystem of sector support.

4 CONCLUSION

Kenya’s water sector does not lack sound analysis, coherent policy, or available capital. What it has lacked, for well over a decade, is the set of connective mechanisms that translate analysis into enforceable governance, convert policy into systems credible enough to attract finance, and transform physical assets into services that households, enterprises, and productive systems can rely on across seasons and drought cycles. Filling that connective gap with deliberate selectivity and genuine causal discipline is the task for which a well-designed Dutch catalytic facility is better positioned than any other actor currently operating in the sector.

This framework is selective in geographic and thematic scope, sequenced so that governance precedes infrastructure and preparation precedes capital deployment, testable at every causal link through indicators with defined verification and attribution and built to adapt on the basis of evidence rather than continue on the basis of institutional inertia. Approval enables a validation phase, a credible management structure, phased commitment of catalytic resources, and a shared intervention logic around which EKN, DGIS, the Government of Kenya, delivery partners, and the private sector can align. It does not commit the Netherlands to large-scale capital deployment before the evidence warrants it. It commits to establishing whether the underlying theory holds, and to acting on what the evidence reveals.

5 ANNEX 1: DEVELOPMENT PARTNER AND PROGRAMME MAPPING

The following table maps active and planned donor programmes in the geographies relevant to this facility, identifying entry points for Dutch additionality and areas of potential overlap requiring coordination through the WATSAN Development Partner group.

Geography	Active programmes and donors	Key GoK actors and capacity status	EKN entry points	Overlap / coordination risk
Upper Ewaso Ng'iro Basin	TNC Upper Tana-Nairobi Water Fund (replicated model); DANIDA co-financing on WSP improvement; WPS programme (IHE, NWP); KWSLIP watershed component	WRA basin office (limited enforcement capacity); Laikipia/Isiolo/Samburu county govts (variable); 12 WRUAs (7 meeting minimum criteria)	WRUA governance and master metering; 3R restoration clusters; conflict mediation; enterprise preparation	Coordinate with TNC on water fund model; align with DANIDA on WSP TA; avoid duplicating KWSLIP watershed areas
Isiolo-Laikipia interface	UNICEF WASH (community infrastructure); WFP resilience programming; NDMA drought response	County govts (limited technical capacity); pastoralist institutions; conservancies	Enterprise activation; sanitation services; digital water accounting	Ensure additionality to UNICEF infrastructure; coordinate drought response with WFP/NDMA
Kajiado corridor / Kitengela	Limited donor presence; World Bank peri-urban studies	Kajiado county (growing but under-resourced); private developers; WSPs	Utility performance diagnostics; NRW reduction; sanitation chain mapping; WS3 preparation	Low overlap risk; coordinate with county development planning
Machakos clusters	GIZ sector support (limited); county own-source investment	Machakos county (relatively strong institutional base); WSPs	Billing reform; digital operational controls; WS3 transaction preparation	Coordinate with GIZ to avoid duplication
Secondary towns (general)	DANIDA WSP improvement project; WSTF co-financing	WASREB (regulation); WSTF (financing); county WSPs	Performance verification; sanitation integration; lender-side TA	Co-finance with DANIDA where possible; use WSTF as co-financing pathway