



OXFAM

HOLDING THE LINE

WASH Systems, Risk and Resilience
in the Rohingya Response

Holding the Line: WASH Systems, Risk and Resilience in the Rohingya Response

Published by

Oxfam in Bangladesh

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Evidence Sources and Notes

This publication draws on the Cox's Bazar WASH Systems and Sustainability Assessment, Field Verification Report, and technical reviews across key WASH sectors. Field findings are based on purposively selected respondents and locations and should be treated as validation signals, not camp-wide estimates. The four human stories were collected separately and are not part of the 192-household and 12-FGD sample unless stated otherwise.

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WASH Systems, Risk and Resilience in the
Rohingya Response

GLOSSARY OF ABBREVIATIONS

Terms used in the publication

This page expands the principal institutional, technical and service abbreviations used across the publication.

Abbreviation	Meaning	Abbreviation	Meaning
AWD	Acute Watery Diarrhoea	l/p/d	Litres Per Person Per Day
COD	Chemical Oxygen Demand	MHM	Menstrual Hygiene Management
DPHE	Department of Public Health Engineering	MRF	Material Recovery Facility
EWARS	Early Warning, Alert and Response System	NRC	Nayapara Registered Camp
FRC	Free Residual Chlorine	O&M	Operations and Maintenance
FSM	Faecal Sludge Management	PIT App	Oxfam Sanitation/FSM Pit-Monitoring Application
FSTP	Faecal Sludge Treatment Plant	SCCCM/SMSD	Shelter, Camp Coordination and Camp Management / Site Management and Site Development
HWF	Handwashing Facility	TCG	WASH Systems and Sustainability Technical Consultation Group
JART	Joint Assessment and Response Team	UNICEF	United Nations Children's Fund
KII / KIIs	Key Informant Interview / Interviews	WASH	Water, Sanitation and Hygiene
KRC	Kutupalong Registered Camp	E. coli	Escherichia Coli; an Indicator of Faecal Contamination in Water



WHY THIS LINE MATTERS

Since the large-scale influx in 2017, Bangladesh and the international community have sustained an extraordinary humanitarian response for Rohingya refugees and host communities in Cox's Bazar, Bangladesh. Nearly a decade later, the challenge is shifting from emergency delivery to sustaining critical systems, protecting hard-won gains and building more resilient pathways for the future.

In Cox's Bazar, WASH is experienced through ordinary routines: the time a tap opens, the condition of a path after rain, the lock on a latrine door, the availability of soap, the arrival of a waste collector, and the speed with which a complaint is resolved. These routines are easy to overlook when the response is described mainly through asset counts. Yet they are where public-health protection, dignity and trust are won or lost.

The response has built an exceptional service platform. Water networks, boreholes, reservoirs, tapstands, latrines, bathing facilities, faecal sludge

treatment plants, Material Recovery Facilities for solid waste, drainage arrangements, hygiene systems and disease surveillance now operate at a scale that resembles a humanitarian utility. The system is still holding. But holding is not the same as being secure. Ageing assets, difficult terrain, dry-season stress, monsoon exposure, uneven process control and funding compression place growing pressure on the people and organisations that keep services working.

Holding the Line brings technical evidence closer to human experience. It shows what is visible - water points, facilities, workers and service routes - and what is less visible: meters, chlorine logs, treatment compliance, preventive maintenance, complaint closure and the link between health alerts and verified WASH action. Its central argument is practical: protect the minimum public-health functions first, improve weak or high-cost systems through evidence, and build transition pathways only when mandate, capacity, financing and accountability are credible.

Messages From

Anil Pant

Interim Country Director
Oxfam in Bangladesh



Oxfam remains committed to working alongside all actors so that fragile access becomes dependable service, and emergency WASH facilities become safer, fairer and more resilient for everyone.

HOLDING SERVICES, PROTECTING DIGNITY

As the Rohingya crisis enters its tenth year, the response in Cox's Bazar remains a critical need. What began as a humanitarian emergency has become a prolonged crisis in which more than 1.2 million people continue to depend on essential services, while humanitarian actors and government institutions face growing challenges to adequately respond to the needs of the Rohingya people. With declining resources and ageing infrastructure, protecting the gains made during a decade of work for Rohingya communities is becoming increasingly difficult.

Within this wider response work, WASH is one of the foundations that keeps everyday life functioning. In Cox's Bazar, WASH means much more than water, toilets and hygiene. It protects people from disease, supports the safety and dignity of women and girls, and strengthens resilience to monsoons, flooding and other shocks. When local WASH systems become fragile, the consequences extend quickly into public health, protection and community well-being crisis.

The Rohingya response work has, over the years, built WASH systems at scale. Yet the "Holding the Line: WASH Systems, Risk and Resilience in the Rohingya Response" covered in this publication shows that scale can hide fragility. Water may flow, but not always in sufficient quantities or at predictable times. A latrine may remain functional while the treatment chain behind it is under pressure. Hygiene messages may be understood while soap, water, privacy or safe access are missing at the point of use.

The camps and neighboring host communities should be seen as one connected public-health and environmental system. Therefore, there is a need to protect and enhance essential WASH facilities for Rohingya people and in nearby host community. This needs to be done through a coordinated efforts of the government of Bangladesh, development actors, host communities and Rohingya people themselves who should be involved to shape the decisions that impact on their lives.

Oxfam remains committed to working alongside all key actors so that fragile access of Rohingya people to WASH becomes reliable service, and emergency WASH facilities become safer, fairer and more resilient for everyone.



Messages From

Md. Nasrullah

Executive Engineer
Department of Public
Health Engineering,
Cox's Bazar



Sustainable oversight cannot be achieved through premature handover. It requires an asset registry, clear mandates, budgets, personnel, operating procedures and shared performance review.

FROM EMERGENCY ASSETS TO SUSTAINABLE PUBLIC SYSTEMS

The WASH systems serving Rohingya camps and communities in Cox's Bazar are a major public-health responsibility. Built during an emergency, they must now be managed with the discipline of long-term services: clear standards, verified assets, disciplined operation, maintenance, environmental protection and accountable use of resources.

Holding the Line shows why infrastructure counts are not the final measure of performance. A water network must produce, treat and distribute safe water reliably. A sanitation facility must connect to safe emptying, transport, treatment and disposal. Waste collection must lead to recovery and residual disposal. Monitoring must lead to corrective action.

For the Department of Public Health Engineering, water quality, sanitation safety and compliance are central. Reliable chlorination, flow measurement, source monitoring, verification and operating records are essential for protecting public health and guiding investment. The same principle applies to faecal sludge management: treatment performance, efficiency, operator safety and corrective follow-up must be visible and managed.

Sustainable oversight cannot be achieved through premature handover. It requires an asset registry, clear mandates, budgets, personnel, operating procedures and shared performance review. Existing government and coordination structures should be strengthened rather than replaced by parallel systems.

Camps and host communities must be considered together where they share water sources, environmental pathways, treatment facilities and public-health risks. Teknaf requires attention because seasonal water stress and municipal interfaces demand integrated planning.

DPHE welcomes partnership to protect operations, strengthen capacity and build a phased pathway towards safe, accountable and climate-resilient WASH services for Rohingya refugees and Bangladeshi host communities.

Messages From

Deepika Mehrish Sharma
Chief of Field Office
UNICEF Cox's Bazar Field
Office, Bangladesh



**Holding the Line shows
both the scale of what
has been achieved
and the human
consequences when
one link weakens.**

FOR EVERY CHILD, SAFE WASH

Every day, families in Cox's Bazar depend on a chain of services they should not have to think about: a pump that starts, water that is safe, a latrine that can be used after dark, a drain cleared before the rain and soap available when it is needed. Holding the Line shows both the scale of what has been achieved and the human consequences when one link weakens.

The next phase must protect minimum services while making existing systems more reliable, climate-resilient and accountable. This means sustained financing for operations and maintenance, stronger monitoring, and faster closure of community complaints and health alerts. It also means listening to women, children, persons with disabilities and host communities when service decisions are made.

The measure of success is whether children and families can use WASH services safely, consistently and with dignity.





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CHAPTER 01

EXECUTIVE SUMMARY: THE SYSTEM IS HOLDING, BUT UNDER PRESSURE

Scale has been built. Resilience now depends on control, reliability, safety and public-health follow-through.

The assessment brings together one consolidated inception frame, five technical evidence streams and Field Data Verification. Across water, sanitation/FSM, solid waste and drainage, hygiene/MHM and public health, the same pattern emerges: access and visible infrastructure are generally stronger than the less visible controls that keep services safe over time.

The overall response is functioning, but not yet sustainably controlled. It can still be stabilised if it is managed as one operating system and one public-health protection system - with common service standards, minimum data definitions, coordinated performance review, named corrective actions and shared closure rules. This does not mean one agency or a merger of mandates. It means that the chains must connect.

The most urgent shift is from counting facilities to controlling service performance.



FIVE OBSERVATIONS THAT SHAPE THE PUBLICATION

A compact view of what is holding, what is weakening and why it matters

The installed platform is substantial, but scale can mask accumulated operational weakness. These five observations connect the technical findings to the lived experience recorded in selected field sites.

Scale is not resilience

Sustainability now depends more on O&M discipline, process control, records, operator capacity and governance than on simple expansion.

Front-end access is stronger

Water coverage and sanitation access are visible; chlorination, treatment compliance, residual handling and closure records are less secure.

Households absorb system gaps

Source switching, queuing, facility avoidance, buying or borrowing supplies and living with stagnant water can conceal formal service weakness.

Camps are not one technical profile

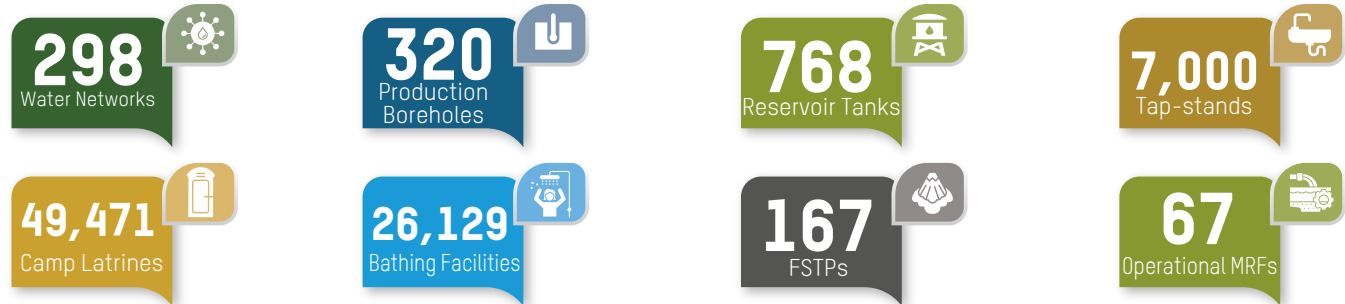
Camp archetypes and full service chains should guide rehabilitation, rationalisation and financing. Teknaf needs a distinct multi-source approach.

Governance and data are technical issues

Incomplete asset verification, cost records and closure logs limit decisions on ownership, financing, handover and transition.

The evidence at a glance

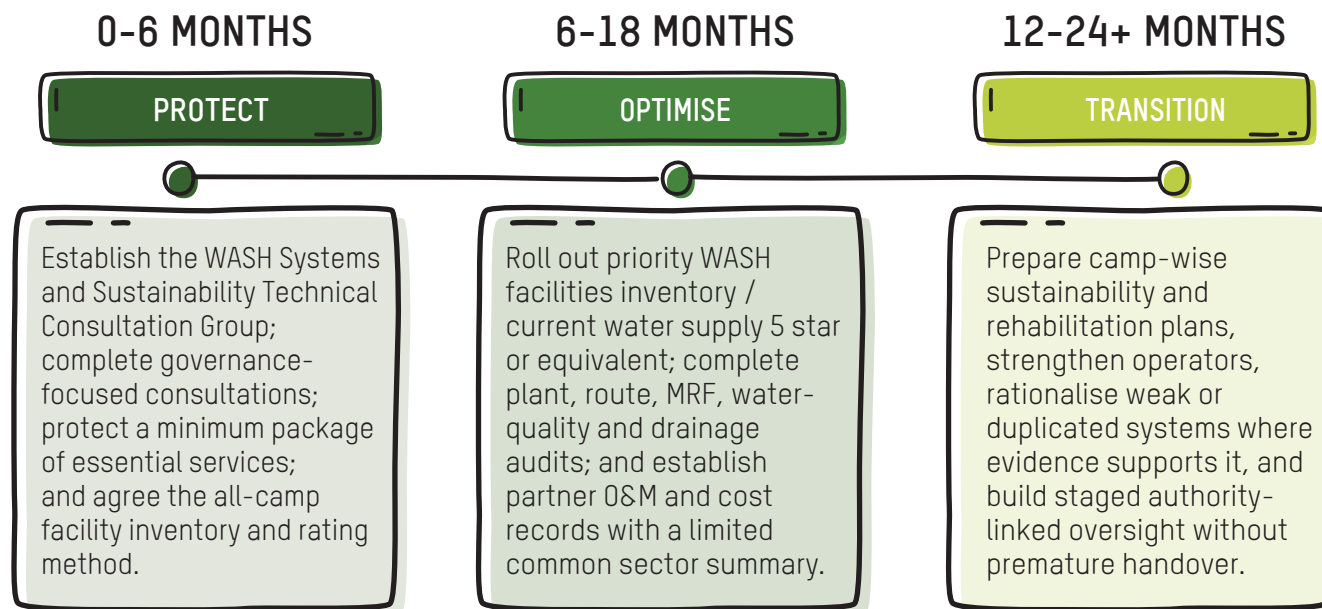
Existing WASH systems: scale is established, lifecycle management is the challenge:



PROTECT, OPTIMISE AND TRANSITION

Priority recommendations by implementation horizon

The publication uses three management horizons. They are not separate projects: each horizon protects public health while building the evidence and capacity needed for the next.



Optimisation is not service reduction

It means protecting the public-health controls that cannot safely be cut while simplifying, repairing, measuring and strengthening weak service chains. Transition becomes credible only when mandate, technical capacity, financing, data ownership and protection safeguards are clear.

The response does not need a choice between emergency protection and sustainability. It needs a disciplined pathway that treats sustainability as the protection of reliable services over time.





CHAPTER 02

BACKGROUND AND METHODOLOGY: FROM EMERGENCY INFRASTRUCTURE TO LONG-TERM SERVICE DELIVERY

After years of response, the question is no longer only what has been built. It is what can keep working safely, affordably and accountably.

WASH services in Cox's Bazar now operate as long-duration, high-density humanitarian service systems. Water networks, treatment plants, collection routes, communal facilities, hygiene supply chains and surveillance mechanisms were created under emergency pressure, then adapted repeatedly as the crisis became protracted.

The result is a large but layered operating environment.

Formal networks coexist with point sources and fallback supply. Latrines depend on containment, emptying, transfer and treatment. Waste collection depends on segregation, MRF operation, recycler links and residual disposal. Hygiene outcomes depend on water, soap, safe access and complaint response. Surveillance can identify risk, but only operational systems can close it.

A systems lens follows the service chain from source or facility to the user, the environment and the public-health outcome.

WHAT MUST CONNECT FOR A SERVICE TO BE RELIABLE

Five layers turn infrastructure into public-health protection

A facility is only one node in a service chain. Reliability depends on the connections between visible access, technical control, recurrent financing, governance and corrective action.

LAYER 1

Front-end access

Tapstands, latrines, bathing spaces, handwashing points, waste collection and safe routes.

LAYER 2

Back-end control

Production records, chlorine dosing, FRC, treatment logs, MRF material balance and residual disposal.

LAYER 3

Operating cost

Energy, fuel, chemicals, spares, staff, desludging, repairs, routes and supplies.

LAYER 4

Governance and accountability

Clear operators, decision rights, ownership, supervision, complaints, escalation and closure.

LAYER 5

Public-health protection

Surveillance triggers, matched WASH investigation, named action, verification and unresolved-risk escalation.

Why the chains fail quietly

Service failure is often cumulative rather than dramatic: a meter stops working, chlorination becomes irregular, a pit fills faster, a drain blocks, a handwashing point loses soap, or a complaint remains open. Households adapt, so the system can appear functional until stress becomes visible.



HOW THE EVIDENCE HAS BEEN BUILT

Three evidence streams, four analytical lenses and one purposive field comparison

The final assessment did not create a new all-camp survey or a composite severity score. It used the consolidated inception report as the organising frame, extracted the principal findings from five technical desk reviews, and then assessed how Field Data Verification confirmed, qualified or left those findings unresolved.



INCEPTION FRAME

Scope, systems lens, camp-host logic and priority questions.



FIVE EVIDENCE STREAMS

Water; sanitation/FSM; solid waste/drainage; hygiene/MHM; public health.



FIELD DATA VERIFICATION

192 household interviews and 12 FGDs testing 38 claims in selected sites.

Evidence was read through four linked lenses: the service chain, sustainability and O&M, governance and accountability, and public-health risk. A finding was treated as triangulated when the desk evidence and field experience pointed in the same direction; partially triangulated when the direction was supported but technical or geographic detail remained unverified; and unresolved when measurements, logs, cost records or institutional consultations were missing.

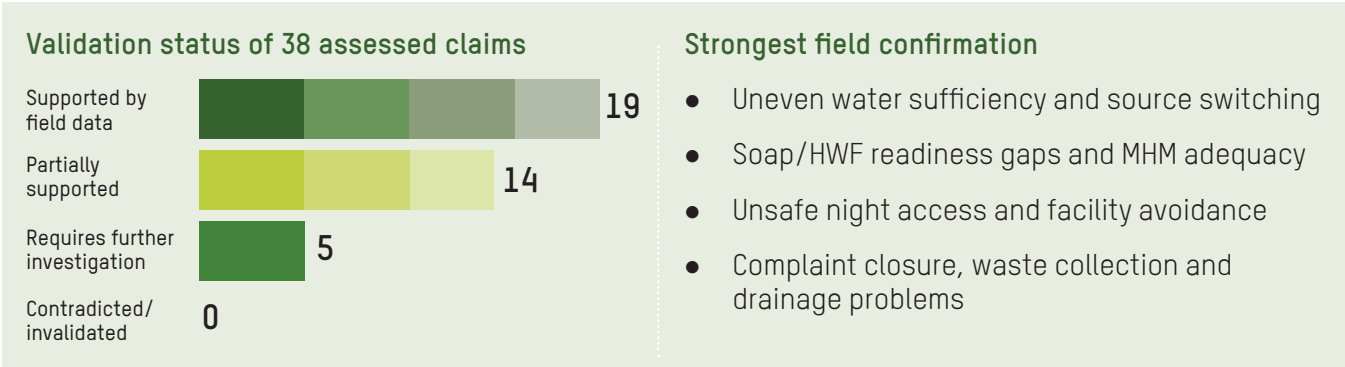


Field Locations

Camp 05, Camp 27, KRC, NRC, Hnila, Whykong and Palongkhali/Ukhiya. Very high vulnerable sites were selected purposively to test repeated or distinct WASH risks, not to represent all 33 camps statistically.

Validation result: strong support for user-facing service risks

The field component validates lived service experience and gaps, while technical facility performance requires a second evidence layer.



WHAT THE EVIDENCE CAN - AND CANNOT - DECIDE

Using lived experience without turning it into unsupported all-camp claims

The field component is strongest where people can directly describe service reliability, coping and safe use. It is not a substitute for technical measurement, audited cost records or institutional due diligence.

Field Evidence Can Show	Field Evidence Cannot Prove
Lived service conditions	Technical and institutional performance
Water sufficiency and source switching; soap and handwashing readiness; MHM adequacy; safe access; complaint response; waste collection; blocked drains and stagnant water.	Safe yield, dosing calibration, network output, FSTP compliance, MRF mass balance, route cost, groundwater abstraction, ownership, financing or transition readiness.

How this publication should be used

It provides one evidence-bound narrative for leadership and donor dialogue; identifies no-regrets actions that protect service reliability and public health; and shows where targeted engineering, operational, cost and governance verification must come next. It should not be used as an asset-by-asset audit, an all-camp prevalence study, a disease-incidence league table or a justification for immediate handover.

The desk reviews provide the wider system picture; the purposive field comparison shows how priority and potentially more vulnerable locations experience those systems in practice. Both are necessary, and neither should be stretched beyond its scale.



STORY

BEFORE THE TAP OPENS

Location: Camp 19, Ukhiya

Date: 10 August 2026

“

I have to go several times to collect enough water for everyone. It is difficult, especially when I have to make repeated trips.



By the time water begins flowing through the supply line at 9 a.m., Mollika has already finished much of her morning household work. The next two hours are crucial: she must collect enough water to meet the needs of ten family members for the rest of the day.

Mollika, 36, lives with her husband, six children, mother-in-law and uncle-in-law in Camp 19 in Ukhiya, one of 33 Rohingya refugee camps in Cox's Bazar, southeastern Bangladesh. Between 9 and 11 a.m., when water is released from the distribution tank to the taps, she makes repeated trips to a nearby water point to collect water for drinking, cooking, washing, cleaning and other daily needs.

"I have to go several times to collect enough water for everyone. It is difficult, especially when I have to make repeated trips," she says.

When water is unavailable through the supply line, the family relies on two nearby tubewells, with Mollika's 11-year-old son helping carry water home.

Her routine reflects a wider challenge across the camps. Humanitarian standards call for about 20 liters of water per person per day for drinking, cooking and basic hygiene, but during the dry season, available water can fall to 10 to 12 liters per person. Many camp water systems depend on surface-water sources, which recede during winter as rainfall decreases, leaving less raw water for treatment and distribution while demand remains constant.

Even after water reaches the home, it must be carefully managed. Mollika tries to keep drinking and cooking water in separate containers, but with ten

family members depending on the household supply, that is not always possible.

"It is also difficult to keep drinking water and cooking water separate all the time," she says.

For families like Mollika's, having a nearby water point does not necessarily mean having enough water. Limited distribution hours, seasonal shortages and interruptions force households to plan their days around water collection, storage and alternative sources. What may look like a routine household chore can involve repeated trips, physical effort and constant calculation.

Access to safe water remains a life-saving priority across the Rohingya refugee camps. Oxfam supports water distribution through two surface-water treatment plants and three groundwater treatment plants, together providing safe water to approximately 150,000 to 200,000 people among the 1.2 million Rohingya refugees living in the camps.

For Mollika, every container she carries home helps keep her family's day on track. Across the camps, reliable water systems are equally fundamental—protecting health, preserving dignity and helping families meet their most basic needs each day.





CHAPTER 03

VULNERABILITY AND RISKS: WHEN MINIMUM SERVICES BECOME FRAGILE

The greatest risk is often accumulated weakening across linked service chains, not one dramatic collapse.

Funding compression, ageing assets, seasonal shocks and difficult terrain affect every sub-sector differently, but the consequences converge. Preventive maintenance is delayed. Stock buffers narrow. Operators work around failing equipment. Waste and silt return to drains. Households borrow, buy, wait, avoid facilities or use alternatives.

A minimum WASH service is therefore not protected by asset counts alone. It is protected by recurrent financing, trained staff, working control equipment, consumables, safe access, records, complaint closure and contingency capacity. When those quiet functions weaken together, a system can remain visibly open while becoming less safe, less reliable and more expensive to sustain.

Risk grows where service failure, public-health consequence, O&M pressure and unequal exposure overlap.

THE HIDDEN COST OF KEEPING SYSTEMS WORKING

Why reactive patching becomes a false economy

The source reviews do not contain one harmonised whole-life cost ledger. They do, however, identify the recurring points where the response pays every day.



Reactive maintenance can preserve the appearance of service while increasing cost and risk. A repeatedly repaired pump, frequently emptied pit, poorly measured route or chronically unsupplied handwashing point may continue to function, but

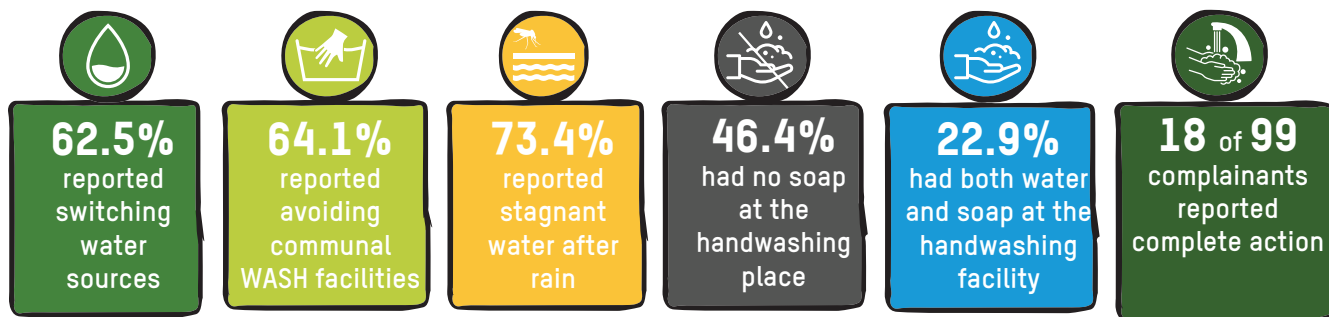
only through constant intervention. Without shared definitions and partner-level records, the sector cannot compare the cost of preserving a weak model with the cost of improving or replacing it.



WHAT PEOPLE EXPERIENCE WHEN CONTROLS WEAKEN

Selected signals from the purposive field comparison

The field findings describe respondents in selected priority camp and host-interface locations. They do not estimate prevalence across all 33 camps, but they show how service gaps become lived risk.



The pattern is not a single failure. It is a chain of adjustments: wait longer, change source, use a less preferred facility, borrow or buy supplies, navigate a dark route, live with missed collection, or avoid standing water. These adaptations protect families in the moment, but they can make a weak service appear more functional than it is.

The missed-collection response requires particular care: 106 respondents selected it, but the field tool did not establish a common recall period. It shows at least one reported service lapse, not that the same share had no collection service.



CLIMATE, PUBLIC HEALTH AND THE CAMP-HOST INTERFACE

Shocks amplify existing fragility; service and environmental pathways cross administrative boundaries



Dry-season scarcity, intense rainfall, slope instability, drainage blockage, salinity-sensitive sources and constrained O&M budgets do not create separate risks.

They intensify weaknesses already present in the operating system. Lower source reliability increases storage and source switching. Heavy rain moves waste and silt into drains, interrupts routes and increases stagnant water. Higher repair and desludging demand arrives when access is most difficult.

Public-health surveillance remains a major strength. The public-health desk review records 59 culture-confirmed cholera cases in 2025 with no deaths and describes confirmed transmission as interrupted by early 2026, not eliminated. AWD and other diarrhoeal syndromes remained active. The practical risk is therefore the service environment: water quantity and chlorine control, sanitation and treatment, drainage and waste, soap, safe access and the ability to close WASH failures after an alert.

Host communities are part of the same geography. Water sources, drainage pathways, markets, disposal routes, public institutions and perceptions of fairness cross camp boundaries. Teknaf concentrates these pressures most clearly. The host evidence is thinner than the camp evidence, so integrated planning must begin with targeted technical, institutional and user verification rather than assumptions.

Resilience is the capacity to keep critical functions working through predictable stress - before a dry season, before a monsoon and before an alert becomes an outbreak.





CHAPTER 04

SECTOR ANALYSIS: WHAT IS HOLDING, WHAT IS WEAKENING AND WHAT MUST BE CONTROLLED

Each sub-sector has visible assets and less visible controls. Sustainability depends on both.

The five technical evidence streams describe different parts of one system. Water supply is extensive, yet quantity, metering and chlorination remain uneven. Sanitation access and functionality are broadly holding, while treatment compliance and desludging pressure expose the back end of the chain. The solid-waste architecture exists, but collection, MRF accounting, drainage interfaces and residual disposal are inconsistent. Hygiene knowledge

is established, while the enabling environment is unreliable. Surveillance is strong, while WASH corrective-action closure is not consistently visible.

The following pages reduce the sector analysis to the decisions that matter most: what is already protecting people, what is becoming fragile, and what evidence is needed to control risk without wasting scarce resources.

A service chain is sustainable only when its weakest operational link is visible and managed.

WATER SUPPLY AND SANITATION/FSM

Large platforms, uneven control and different risks at the front and back of the chain

WATER SUPPLY

Scale is substantial; reliability and process control are the priority



The water desk review records 298 networks, 320 production boreholes, 768 reservoir tanks and more than 7,000 tapstands. In the all-camp screening, 17 camps were below 25 l/p/d and 21 below 90% reported household sufficiency. Field evidence strongly supports uneven quantity, timing and source switching.

The next control questions are system-specific: Is production measured? Are flow meters functional? Is chlorination reliable through the full distribution chain? What are the source, energy, storage and O&M risks? Teknaf requires a separate dry-season, multi-source and camp-host operating plan.

SANITATION AND FSM

Front-end access is holding; back-end treatment is weak



The sanitation platform includes about 49,471 latrines, 26,129 bathing facilities and 167 FSTPs. Reported sanitation functionality remains 96-98%, yet only 21-22% of camp FSTPs met acceptable COD standards in 2024-2025. High access at the front end can therefore coexist with weak environmental control at the back end.

Plant-level and route-level audits are essential before technology or cost decisions. They should follow containment, fill rate, emptying, transfer, plant loading, process performance, effluent compliance, operator safety and the final disposal or reuse pathway.



SOLID WASTE, DRAINAGE, HYGIENE AND MHM

Service reliability is shaped by the environment and the conditions that make behaviour possible

SOLID WASTE AND DRAINAGE

A mature architecture with uneven delivery



The desk review identifies 67 operational MRFs within a mature collection and processing chain. The field comparison strongly confirms missed collection events, incomplete segregation, blocked drains and stagnant water. Physical drainage maintenance remains led by SCCCM/SMSD, while WASH functions include waste handling and public-health risk control.

The critical controls are block-level collection reliability, route time, MRF inflow and outflow, recycler links, residual storage, landfill continuity, drain hierarchy and joint pre-monsoon micro-planning.

HYGIENE AND MHM

Knowledge is established; the enabling environment is unreliable



The strongest field confirmation concerns the gap between knowledge and usable conditions. Of 192 households, 89 had no soap at the handwashing place, and only 44 had both water and soap at the HWF. MHM adequacy, top-up capacity, privacy and disposal were also uneven. Many respondents reported avoiding communal facilities or feeling safe only sometimes at night.

The service KPIs should therefore include point-of-use readiness, refill and repair responsibility, safe access, accessibility and verified complaint closure - not only the number of messages or facilities.

PUBLIC HEALTH AND THE SECTOR-WIDE CONTROL GAP

Surveillance is strong; detection must connect to named WASH action and verified closure

The public-health evidence describes a response with active and technically strong surveillance. The 2025 year closed with 59 culture-confirmed cholera cases and no deaths. By early 2026, confirmed transmission was described as interrupted, while suspected activity and a broader diarrhoeal burden kept the response in a high-readiness phase.

The most controllable risk is the service environment. A health alert should trigger matched checks on FRC and water quality, water quantity, sanitation overflow

and treatment, waste and drainage, handwashing and soap, and safe access. Recording an assessment or an action is not the same as proving the risk has been closed.

One shared protocol should strengthen - not replace - existing EWARS, JART and WASH arrangements. Each alert needs a named WASH action, an owner, a response time, post-action verification and escalation when the control failure remains unresolved.

Across all five sub-sectors, the same management principle applies. Services are strongest when the full chain is measured, owned and closed - from source to user, from containment to treatment, from waste generation to final disposal, and from alert to verified corrective action.



What must be controlled

THE SERVICE ENVIRONMENT

Water, sanitation, waste, drainage, soap, access and accountability together.

WHAT IS HOLDING

Detection

EWARS, JART and sector surveillance provide a strong platform.

WHAT IS WEAKENING

Closure

WASH control failures are not consistently linked to visible post-action verification



STORY

AFTER DARK

Location: Nayapara Registered Camp, Teknaf

Date: 11 August 2026

“

If it gets very late,
I feel afraid to go
outside. Sometimes
boys gather
outside and make
comments. I never
go alone at night;
I take my mother
with me.



Life after dark brings different concerns for Rohingya women, especially young women such as 24-year-old Asmat Ara. Privacy, safety, water and menstrual hygiene materials shape daily life for women and girls in Nayapara Registered Rohingya Camp in Teknaf, Bangladesh.

The mass Rohingya influx of 2017 followed decades of displacement from Myanmar. Asmat's family fled Myanmar and arrived in Bangladesh's Cox's Bazar region in the 1990s. She now lives with six family members in the camp.

In the evening, Asmat's two brothers go to a madrasa, leaving the female members of the family at home. Because going outside alone late at night does not feel safe, Asmat tries to finish essential outdoor activities, including using the latrine, before 10 p.m.

"If it gets very late, I feel afraid to go outside. Sometimes boys gather outside and make comments. I never go alone at night; I take my mother with me," she says.

Eight latrines serve her area. Four have adequate lighting, while the others remain poorly lit, and none has lighting inside, so women often carry a torch. Asmat says repairs have become faster: problems that once took seven or eight days to fix are now often addressed within one or two days. Privacy has also improved after stronger doors were installed following community complaints.

Menstrual hygiene remains a challenge. Asmat uses reusable menstrual materials and sometimes keeps used cloths at home until she can wash them. A

designated hygiene centre exists, but it is too far from her shelter for regular use.

About 26,000 people live in the camp, but only five hygiene centres are available for women and girls to wash and dry menstrual materials privately. Breastfeeding corners are also available, but Asmat believes there are too few centres for such a large population.

Menstrual hygiene kit supplies have also declined. Previously, an adult Rohingya woman received a kit from the UN agency responsible for the area twice a year; now, she receives none.

Oxfam in Bangladesh previously provided hygiene kits, but funding cuts have made regular distribution impossible. The organization still responds during emergencies, such as floods or the sudden arrival of Rohingya refugees, to help address urgent needs.

"The pads should be provided again, and the material could also be improved. We also need more soap and underwear," she says.

Limited water adds another challenge, making menstrual hygiene harder for women and adolescent girls.

For Asmat, dignity depends on more than infrastructure. Feeling safe after dark, having enough water, receiving adequate hygiene materials, accessing private spaces and having concerns addressed promptly all matter. Together, these essentials can help women and girls live with greater safety, confidence and dignity.





STORY

THE WORK BEHIND A WORKING LATRINE

Location: Camp 27, Teknaf

Date: 11 August 2026

“

We never open the tank cover completely at first. We open it slightly and check whether there is gas inside. We are trained to follow all the safety procedures.

For eight years, he has done a job that often goes unnoticed but is essential to keeping sanitation facilities safe and functional. Mohammad Usman, 27, lives with his seven-member family in Block A of Camp 27 in Teknaf, Cox's Bazar. A camp resident for nine years, he works as a desludging worker, cleaning septic tanks and helping keep latrines usable for the community.

Every morning, he leaves the office around 8 a.m., wearing gloves, a mask, gumboots and other protective gear. On a typical day, he and his team clean three to four septic tanks. Safety is critical because tanks can contain dangerous gases.

"We never open the tank cover completely at first. We open it slightly and check whether there is gas inside. We are trained to follow all the safety procedures," Usman says.

The work carries health risks, including skin irritation, scabies and exposure to gases. Workers therefore wash and change their work clothes before returning home, while regular safety and hygiene training helps them manage these risks.

The desludging process has also become safer. In the past, much of the work was manual, and workers had to carry sludge themselves. Today, mechanical systems and pipes transfer sludge directly to designated locations, reducing physical contact.

Managing desludging across more than 50,000 latrines in 33 Rohingya camps in Cox's Bazar is a major challenge. To address this, Oxfam in Bangladesh

introduced a technology-based system that now covers 17 camps.

At the centre of the system is the PIT (Pit Intelligent Tracker) App, a latrine desludging prediction tool. Each latrine covered by the service has a profile in the app, recording information on its condition and when it may need to be desludged.

The app uses a colour-coded system: green indicates that a latrine is functioning well, yellow means it may need desludging within three days, and red indicates that it is full. Supervisors can therefore quickly identify priority locations.

"Before, if someone lived at the far end of the camp, it could take three or four days for information to reach the office. By then, the latrine could become unhygienic. Now we can see everything through the app much faster," Usman explains.

Another challenge is the disposal of cloth and menstrual hygiene materials in latrines, which can block pipes. Usman says the problem has decreased as community awareness has improved. Attitudes toward desludging workers have also changed, with more people recognising the importance of their work.

Behind every functioning latrine is a system of prediction, monitoring, technology, training and workers like Usman, helping keep sanitation services safe, clean and usable across the camps.



A photograph of a brick kiln interior. A person is pushing a wheelbarrow down a central aisle. The aisle is flanked by high stacks of bricks on both sides. The structure is made of metal frames and corrugated metal sheets, with a translucent roof allowing natural light to enter.

CHAPTER 05

CROSS-CUTTING ANALYSIS: SUSTAINABILITY, GOVERNANCE, EQUITY AND TRANSITION

The same control gaps recur across sub-sectors, so the response needs one shared management language.

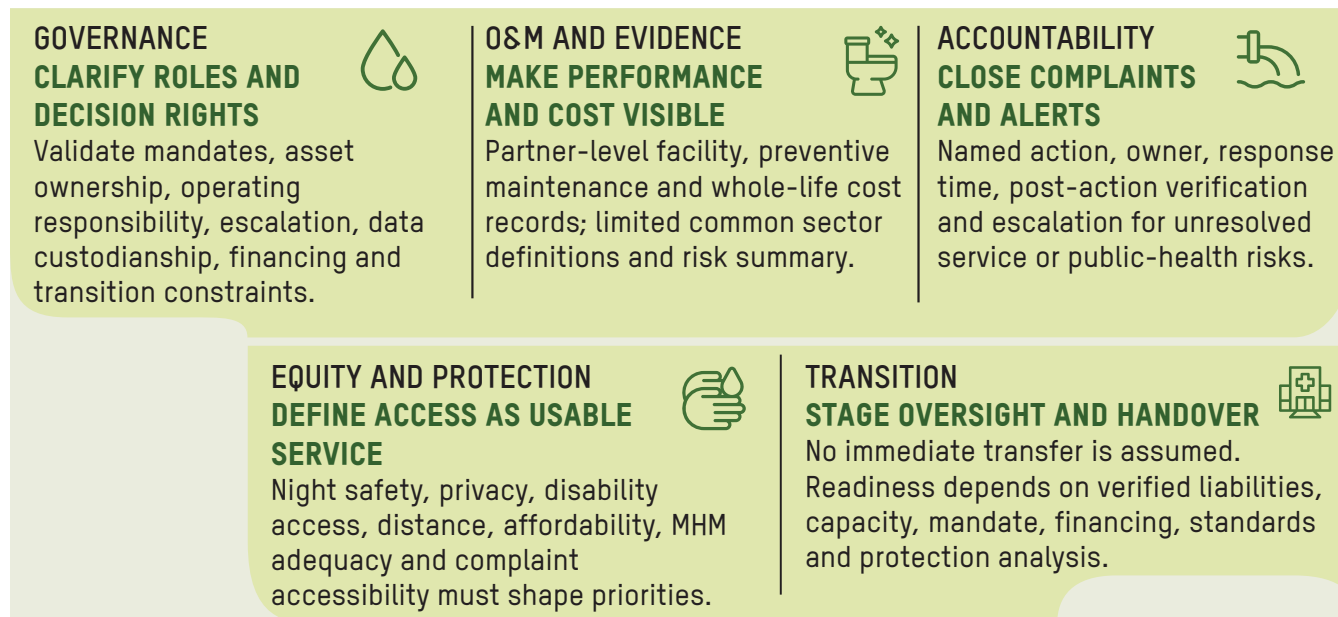
Water, sanitation, waste, hygiene and public health have different technical standards, but they share the same sustainability questions. Who owns the asset and the data? Who operates and pays for the service? Which minimum performance indicators matter? Who can order corrective action? How is closure verified? What happens when funding declines, a shock arrives or an operator changes?

The assessment describes governance and data as technical issues because unclear roles, incomplete records and weak closure directly affect service quality. Equity is equally operational: a facility that is unsafe, inaccessible, unaffordable or impossible to use with dignity is not delivering its intended service.

Sustainability is the ability to keep minimum services safe while roles, financing and systems evolve.

ONE OPERATING SYSTEM - WITHOUT CREATING A PARALLEL SYSTEM

The proposed WASH systems and sustainability technical consultation group should strengthen existing structures rather than duplicate them. Its purpose is to turn evidence into owned decisions, common minimum data and verified follow-through.



Community participation is not an additional consultation layer. It is part of facility management, service monitoring and corrective action. Users should be able to identify a problem, know who owns it, understand what response is expected and verify whether the change happened.

The minimum package should specify the service standard, responsible actor and recurrent cost by camp or service catchment. Funding scenarios should distinguish non-negotiable public-health and protection functions, essential continuity and preventive O&M, and optimization.

One operating system means common standards, data definitions, performance review and closure rules across existing mandates. It does not mean one agency, one operator or a new parallel coordination structure.





STORY

WHERE THE CAMP ENDS, THE SYSTEM DOES NOT

Location: Dakshin Kanchanpara, Whykong, Teknaf

Date: 11 August 2026

“

Life here has changed in almost every way. Our income opportunities have become smaller, our daily expenses have increased, and water is still one of our biggest concerns.

“Life here has changed in almost every way. Our income opportunities have become smaller, our daily expenses have increased, and water is still one of our biggest concerns,” says 35-year-old Senora Begum.

She is a member of the host community—Bangladeshis who live alongside and around the refugee camps in Ukhiya and Teknaf upazilas of Cox’s Bazar and have been directly affected by the Rohingya influx.

Senora lives with her family of five in Dakshin Kanchanpara, Ward 5 of Whykong Union in Teknaf. She was born and raised there, in a house that belonged to her father. Her husband works as a driver and is currently the family’s main income earner.

Over nearly a decade of the Rohingya response, communities surrounding the camps have faced growing economic and environmental pressure. Before the camps were established, many local people leased hilly areas of Forest Department land for cultivation, worked as laborers in forestry-related activities or depended on nearby natural resources, including fishing. As large areas became occupied by settlements and related infrastructure, many of these livelihood opportunities became more limited.

At the same time, the arrival of people from across the country to work in and around the camps increased demand for housing, goods and services. Living costs rose while traditional income opportunities for many local families declined, putting additional pressure on household economies.

Water is another major concern. Before humanitarian organisations installed deep tubewells, many host-

community families depended on shallow groundwater and nearby surface-water sources. During the dry season, these sources often became scarce as water levels dropped, creating greater water stress across surrounding communities.

Humanitarian investment has improved access in some areas through deep tubewells and water distribution networks. In Senora’s neighbourhood, one distribution network currently serves around 80 to 100 families. But demand remains high, and access to sufficient safe water continues to be difficult for many families, particularly during the dry season.

Pressure on surface water has also increased. Senora remembers when people regularly used the nearby Unchiprang canal for bathing. Today, she says, the water has become dark and foul-smelling as wastewater and other waste enter the canal amid inadequate drainage and growing population pressure.

Host-community residents also raise concerns about latrines, drainage, menstrual hygiene management and other WASH needs through meetings with facilitators and volunteers. When an issue falls outside their mandate, residents are connected with other service providers.

Senora’s experience reflects a wider reality. For almost a decade, host communities have shared the environmental, economic and infrastructure pressures associated with the Rohingya crisis. Sustainable support therefore needs to recognise not only the needs inside the camps but also those of the communities living alongside them. The camp boundary may mark where one settlement ends, but pressure on water, livelihoods and essential services does not.







CHAPTER 06

RECOMMENDATIONS: A PHASED FRAMEWORK TO PROTECT, OPTIMISE AND TRANSITION

Act now on no-regrets controls while building the evidence required for larger investment and governance decisions.

The recommendations are deliberately phased. Immediate actions protect minimum public-health and service functions and create the decision platform. Priority-camp rollout then verifies facilities, service chains, technical performance and cost. Medium-term planning converts that evidence into rehabilitation, rationalisation and operator-strengthening programmes. Long-term action

institutionalises facility management and staged public oversight.

This approach avoids two equal risks: continuing to spend reactively on weak systems without improvement, and reducing or handing over services before the technical, financial and institutional conditions are ready.

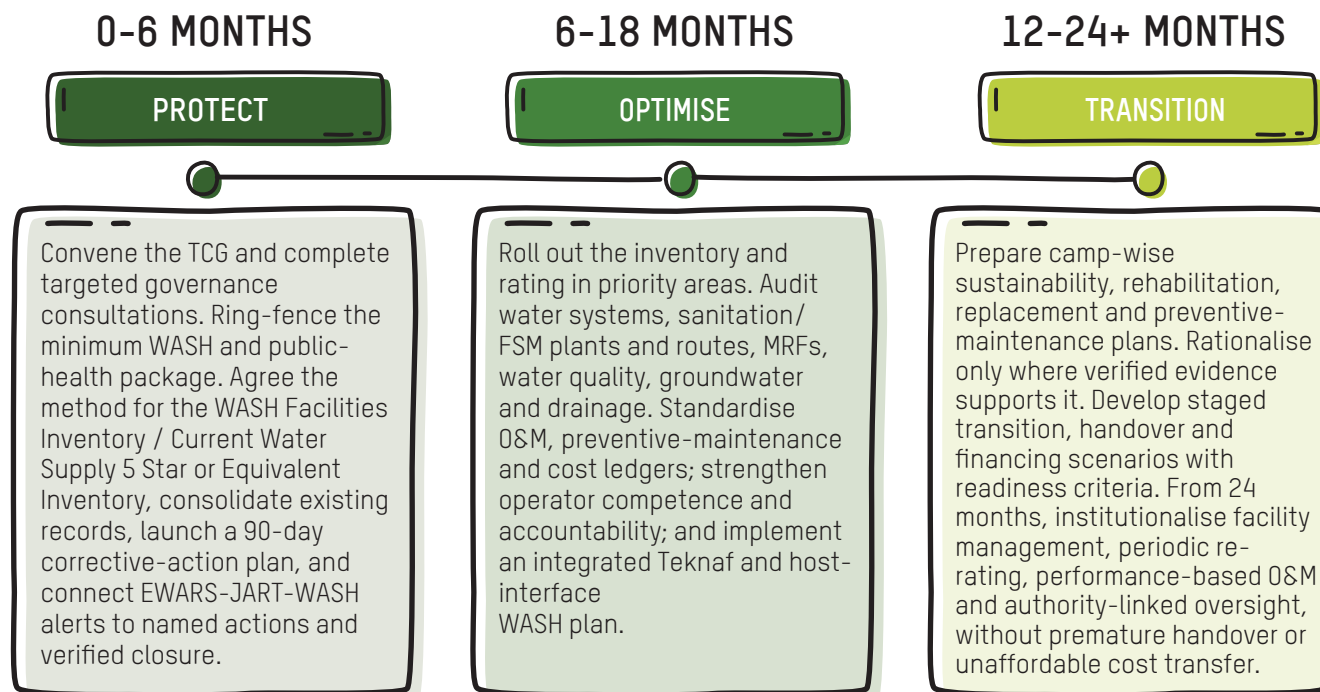
Protect first. Optimise through evidence. Transition only when readiness is credible.



THE ACTION FRAMEWORK

Priority actions and tangible outputs

The three horizons mirror the publication framework: protect essential services first, optimise through verified evidence, and transition only when mandate, capacity, financing and safeguards are credible.



Optimisation is not service reduction

It means protecting the public-health controls that cannot safely be cut while simplifying, repairing, measuring and strengthening weak service chains. Transition becomes credible only when mandate, technical capacity, financing, data ownership and protection safeguards are clear.

The response does not need a choice between emergency protection and sustainability. It needs a disciplined pathway that treats sustainability as the protection of reliable services over time.

HOLDING THE LINE IS A DAILY PRACTICE

The WASH system in Cox’s Bazar is not a finished set of assets. It is a living service platform maintained every day by operators, volunteers, authorities, partners and communities. Its success is often quiet: water arrives when expected, a latrine remains safe, waste leaves the settlement, a drain carries rain, soap is available, a woman can use a facility after dark, and a health alert ends with a verified correction.

The assessment shows that this line can still be held, but not through asset counts or emergency patching alone. It requires minimum services that are deliberately protected, control systems that make performance visible, people with the competence and authority to act, and financing that recognises the whole life of the infrastructure already in place.

The next chapter of the response should be judged by whether it turns evidence into reliable service: fewer unknown assets, stronger preventive maintenance, safer access, clearer ownership, faster complaint and alert closure, and transition decisions grounded in verified readiness. That is how a fragile system becomes a more durable public-health protection system.

Core evidence base





HOLDING THE LINE

WASH Systems, Risk and Resilience in the Rohingya Response

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