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CASE STUDY

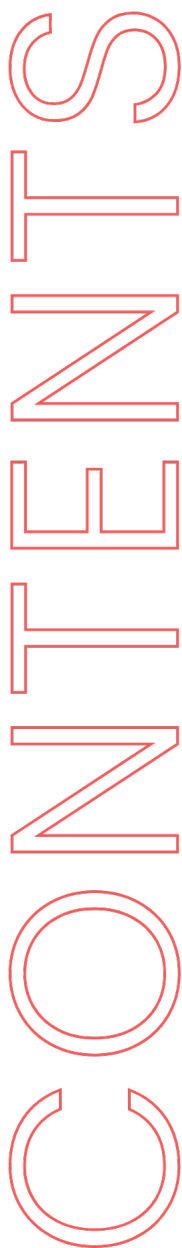
Menstrual Health and Hygiene Development Impact Bond

Ethiopia • 2022-2025



GIDE





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PROGRAMME AT A GLANCE

Time period	January 2022 – March 2025
Thematic area	Menstrual Health and Hygiene (MHH)
Country	Ethiopia (Adama City and peri-urban)
Target population	Women and girls in schools, universities, factories Communities, including boys and men
Outcome metric	MHH needs met (Menstrual Practice Needs Scale); MHH Knowledge increase; MHH friendly Infrastructure access; MHH Product access
Total budget	Investment: €2.3 million Outcome funding: €3 million
Total direct beneficiaries reached	73,523 people, including 40,963 women and 32,560 men.
Total (direct and indirect) beneficiaries reached	378,720 total beneficiaries
Outcome funder	Agence Française de Développement (AFD)
Investor	BNP Paribas
Service providers / DIB manager	CARE France and CARE Ethiopia; Pro Pride
Independent evaluator	ITAD / JarCo
DIB manager / structurer	KOIS
Legal advisor	Gide
Financial outcome	Capital preserved; 0.5% IRR for investor

1. SUMMARY

The Menstrual Health and Hygiene Development Impact Bond (MHH DIB) is the first impact bond dedicated to menstrual health. Implemented in Adama City and surrounding peri-urban areas of the Oromia Regional State in Ethiopia from January 2022 to March 2025, it brought together AFD as outcome funder, BNP Paribas as private investor, CARE France as DIB manager, CARE Ethiopia and Pro Pride as service providers, and ITAD/JarCo as independent evaluator, with KOIS as DIB structurer and Gide as the legal structuring partner.

The programme pursued three mutually reinforcing pillars: (1) awareness-raising and advocacy to address stigma and behavioural barriers; (2) access to sustainable menstrual products through a market-based subsidy approach; (3) access to MHH-friendly WASH infrastructure in schools and communities. Over its three-year lifespan, the DIB:

- Reached **378,720 people**, of which, 193,147 girls and women,
- Distributed **30,000 menstrual kits**, each containing 4 reusable pads, 1 storage bag, 1 pouch, 1 user guide,
- Built **23 new latrine blocks** (114 seats) and rehabilitated **67 existing blocks** (446 seats),
- Equipped **55 schools** with new or renovated MHH-friendly toilets and dedicated MHH rest rooms.



378,720
people reached



193,147
girls and women



30,000
menstrual kits



55
schools

The endline evaluation found strong evidence of impact. The programme achieved a statistically significant improvement in menstrual health needs met, with a Difference-in-Differences (DiD) effect of +0.39 on the Menstrual Practice Needs Scale (MPNS-36, scored 0 to 3) —substantially exceeding the target (+0.10). It also met or exceeded all targets related to infrastructure and product access. Confidence in managing

menstruation at school or work increased dramatically in Adama — DiD of +26 percentage points. This is one of the most striking results of the programme, although it may also reflect the influence of broader contextual factors beyond the intervention alone. In contrast, the programme did not meet all its knowledge target, reflecting both measurement limitations and gaps in reaching male audiences. Knowledge results improved significantly and above expectations for women and girls, while declining among men and boys — a divergence that the DiD framework was not designed to test independently.

While the programme delivered meaningful outcomes, the DIB mechanism itself generated important learning. It introduced a high degree of complexity—through contractual structures, an ambitious evaluation methodology, procurement processes, and multi-stakeholder coordination—but also created value beyond funding. The results-based financing structure strengthened accountability, supported real-time programme adaptation, and embedded a level of evaluation rigour that remains rare in the MHH sector. The governance model enabled sustained collaboration across public, private, and non-profit actors.

SUMMARY OF KEY FINDINGS FROM THE SET-UP PHASE



SUCCESSSES

- **First-mover innovation:** testing a results-based financing model in a sector with limited prior evidence and investment, generating valuable learning for the field as a whole.
- **Embedded rigorous evaluation:** the integration of an independent impact evaluation within the financing structure strengthened evidence generation and accountability.
- **Early signs of institutional uptake:** the DIB contributed to integrating MHH into local health education systems and school practices, supporting longer-term sustainability, and opened the dialog with the national government to scale-up the project.
- **Strong multi-stakeholder commitment:** AFD, BNP Paribas, CARE and KOIS demonstrated sustained engagement and alignment around the objectives of the instrument.



CHALLENGES

- **Cost-efficiency:** the DIB project was significantly downsized during structuring because of limited grant funding, increasing the relative weight of fixed transaction costs.
- **Complex and long structuring:** the negotiation of the contractual structure with a multi-partite agreement was time-consuming and required additional legal support compared to traditional grant financing.
- **High level of ambition:** the programme combined multiple layers of innovation (products, distribution models, evaluation and financing), increasing execution and measurement risks.
- **Contextual disruptions:** civil and international conflicts and their consequences (e.g., inflation, communities and staff safety) required adjustments to programme scope and geographic footprint.



Roman Hussein, teacher at Dembela Secondary School. © Maheder Haileselassie Tadesse



KEY LESSONS

- **Balance innovation and measurability:** innovation is central to the DIB model — it is precisely what justifies shifting the financing risk to private investors. In some cases, however, an initial track record or small-scale pilot can make it easier to design credible indicators and set realistic targets.
- **Allocate resource for third-party coordination:** clear allocation and resourcing of coordination and performance management roles is critical in multi-stakeholder structures and to manage changes.
- **Align evaluation, financing and procurement from the outset:** sequencing of stakeholder engagement (investor, evaluator) or selecting them together should be carefully considered to balance co-design, independence, and compliance.
- **Keep indicators as simple as possible:** fewer, clearer outcome metrics and pre-agreed adaptation mechanisms can simplify the dialog among stakeholders, improve responsiveness to changing conditions, and enhance the communication around impact. Critically, the data collection, verification and certification process should be defined alongside the indicators themselves — ideally in collaboration with the evaluator — rather than left to be determined at a later stage.
- **Engage local governments early, systematically and financially:** sustained, strategic and structured local public sector engagement is key to translating results into policy uptake and scale.



Surafel Ketaw, pupil at Geda Kilole Primary School. © Maheder Haileselassie Tadese

2. DEVELOPMENT CHALLENGE: A GLOBAL ISSUE THAT DEMANDS INVESTMENT

Half of the world's population menstruates — yet for millions, it remains a source of shame, discomfort, and exclusion. For too many girls and women, menstruation is not simply a biological reality but a barrier that affects their health, confidence, and ability to participate fully in daily life, including education and work.

Menstrual hygiene refers to the ability to manage menstruation safely, cleanly, and privately, with appropriate materials and disposal systems. But menstrual health goes further — encompassing the psychological, social, and environmental dimensions that shape how menstruation is experienced. Despite its profound implications, menstrual health remains chronically overlooked and underfunded in global health and development agendas.

The DIB's structure was originally designed on the basis of 2015–2017 data; the figures presented below reflect more recent 2024 sources updated for this case study. The scale of the challenge is immense. According to the World Bank, an estimated 500 million women and girls lack access to the products, water, and facilities needed to manage their periods safely. The gaps are systemic and mutually reinforcing, cutting across infrastructure, products, and knowledge simultaneously. Globally, 427 million children lack basic sanitation services at their school and 646 million lack access to basic hygiene — while in sub-Saharan Africa, only 12% of schools provide menstrual materials and only 11% have bins for menstrual waste disposal in girls' toilets (WHO/UNICEF Joint Monitoring Programme, 2024). The problem is not only access, but quality: where products exist, they are often improvised, inadequate, or unaffordable, exposing girls to preventable health risks. The true depth of this challenge remains poorly measured. Only 30 countries worldwide have national data tracking even one of the globally recommended menstrual health indicators for schools, and indicator definitions vary so widely across those countries that cross-country comparison remains almost impossible (WHO/UNICEF JMP, 2024). This data gap is itself a driver of underinvestment: without evidence, the case for funding is harder to make, and progress is harder to track¹.



THE BASELINE REALITY

The baseline survey conducted for the MHH DIB programme in Adama, Ethiopia in 2022 illustrates how these challenges compound one another on the ground.

In terms of infrastructure, a facility observation of 14 schools found that only 1 had a lockable toilet door, 3 had sufficient privacy, 6 had functional toilets, 6 had access to water, and not a single school had any mechanism for safe menstrual waste disposal — meaning girls had no private, clean, or hygienic space in which to manage their periods. The consequences were direct: 43% of schoolgirls left school early during their period to change materials at home. Of those who did attempt to use school facilities, 70% reported they were never clean, 59% never private, and 54% never safe.

On products, while the vast majority of girls relied on locally manufactured disposable pads (97% of schoolgirls in Adama); only 51% of schoolgirls always had sufficient materials and 25% of women in the community did. 28% of schoolgirls' families had to save specifically to afford disposable pads.

Taken together, the lack of suitable products and the absence of private, functional facilities left only 57% of schoolgirls in Adama confident in their ability to manage menstruation at school.

Investing in menstrual health is therefore not a marginal issue — it is a strategic lever for advancing gender equality, economic productivity, and progress toward the Sustainable

¹ The DIB's structure was originally designed on the basis of 2015–2017 data; the figures presented below reflect more recent 2024 sources updated for this case study.

Development Goals. Crucially, menstrual health education offers a powerful entry point into broader health and wellbeing. Without basic understanding of the menstrual cycle, girls and women face lifelong constraints on their bodily autonomy and reproductive decision-making, exacerbating vulnerabilities related to sexual and reproductive health and rights. Breaking the silence around menstruation — and embedding it into the design of education systems, WASH infrastructure, and workforce policies — is not only a matter of health, but a development imperative.

Despite this substantial impact on women's and girls' lives, donor funding for MHH in Ethiopia and across sub-Saharan Africa remained limited, fragmented, and non-holistic. Traditional grant-funded interventions lacked rigorous impact evidence, were often focused on one pillar only (access to products or access to WASH infrastructure) and were rarely designed to sustain beyond the project cycle. A new approach was needed — one that would combine ambitious programming, integrating the three pillars of MHH, with robust evaluation and the ability to attract private finance.

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“At the time of programme design, girls in Adama were already using locally made disposable pads — of poor quality and with a significant environmental footprint — alongside free distributions by NGOs that provided no lasting solution. A core ambition of the CARE-led consortium was to go further: to give girls a genuine, informed choice between disposable and reusable products.”

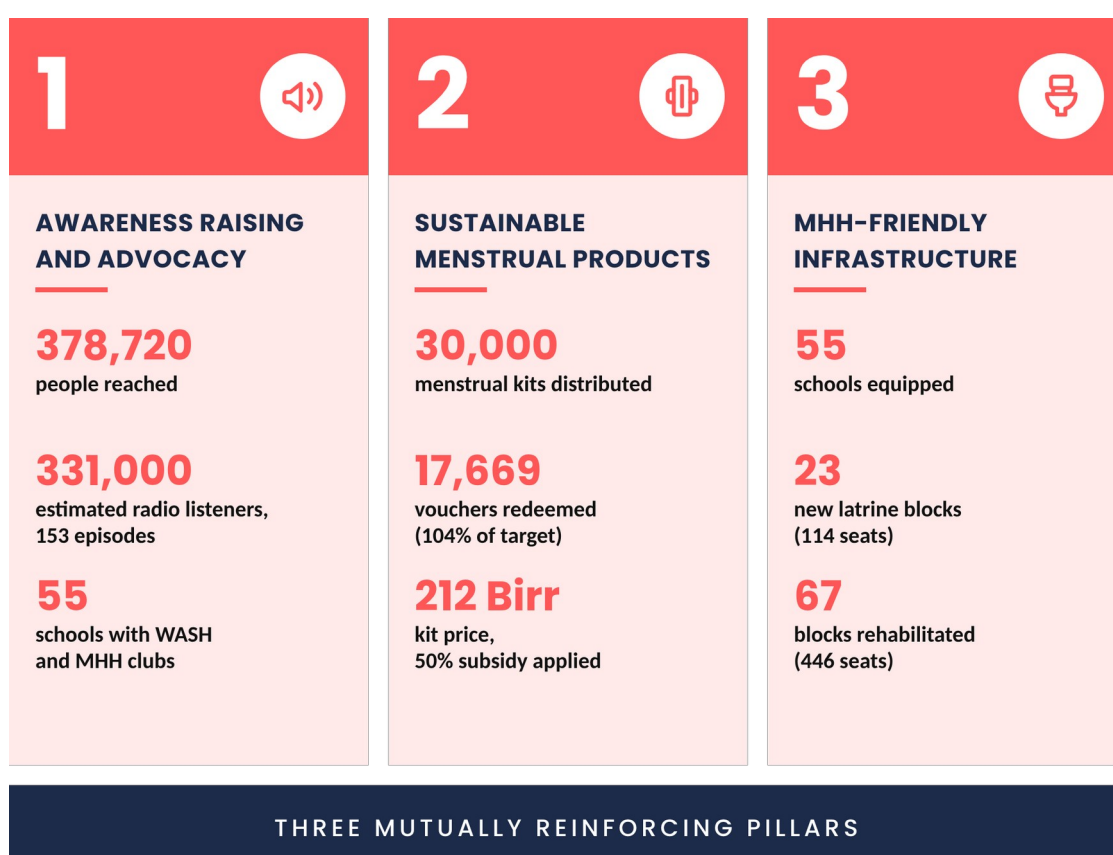
Marina Ogier, CARE France

3. THE PROPOSED SOLUTION

The MHH DIB programme was implemented in Adama City and surrounding peri-urban kebeles of the Oromia Regional State, Ethiopia. CARE Ethiopia led the implementation in partnership with Pro Pride, a specialist communications organisation.

From the outset, the programme deliberately departed from the dominant model of MHH interventions, which had historically focused almost exclusively on schools. The consortium's theory of change held that lasting impact for girls could only be achieved by engaging the wider community — including men, boys, families, and local institutions. The programme therefore operated across multiple entry points — schools, universities, health centres, factories in the Adama Industrial Park, and peri-urban women's groups — embedding this territorial, whole-of-community approach as a core design principle rather than an afterthought.

The theory of change rested on three mutually reinforcing pillars with the aim to demonstrate that this cross-pillar approach was more effective than any single intervention in isolation.



PILLAR 1 — AWARENESS RAISING AND ADVOCACY

The first pillar tackled the root cause: the stigma, silence and misinformation surrounding menstruation. Without shifting knowledge, attitudes and social norms, products and infrastructure would have limited impact. The pillar used a strategy-driven social and behavioural change communication approach, targeting schoolgirls, boys, teachers, health workers, religious leaders, parents and factory workers at the same time. Together, these activities reached 378,720 people. Key activities included:

- A radio programme ('Abaaboo' meaning 'flower'), broadcast in Amharic and Afan Oromo to ~331,000 listeners across 153 episodes;
- Performances by amateur artists at schools, factories and public events;
- Training of 330+ health professionals on MHH basics, who cascaded awareness to 72,600+ community members through health facility sessions;
- Engagement with 64 religious and traditional leaders, who independently reached **13,917 followers** in their places of worship;
- WASH and MHH clubs in all 55 intervention schools;
- Over 35 types of Information, Education & Communication materials in English, Afan Oromo and Amharic;
- Community advocacy around international observance days, and policy advocacy to integrate MHH into government health education programmes and school curricula.

PILLAR 2 — SUSTAINABLE MENSTRUAL PRODUCTS

The second pillar tackled the near-complete absence of reusable menstrual products in Adama — a market that did not exist before the programme. The pillar sought to introduce quality reusable pads through a subsidised distribution mechanism, building demand and market development simultaneously. Reusable products were prioritised over disposable alternatives due to their cost-effectiveness and environmental sustainability. Before distributing products, the programme invested in awareness and demand-building, recognising that providing pads without education and social norm change would not produce lasting behaviour change.

A tiered voucher subsidy system was designed to incentivise adoption while progressively building willingness to pay. Vouchers were distributed to girls and women through multiple channels, including schools, health centres, Village Savings and Loan Association (VSLAs), retail shops, and factory outlets. These vouchers could then be used by girls and women to purchase kits of reusable menstrual pads at a discount price, lowering the upfront cost barrier for first-time users.

The subsidy level varied depending on the target group, ensuring that the most vulnerable populations could access the products at little or no cost, while others contributed a partial payment. This approach allowed users to experience the product at a reduced price, while gradually introducing a pricing structure that supports long-term market sustainability.

The reusable pads distributed through the programme were produced by Mela for Her, an Addis Ababa-based social enterprise whose work goes beyond manufacturing. In addition to producing certified, quality-assured reusable menstrual products, Mela for Her is actively engaged in awareness-raising and last-mile distribution — making it both a supplier and a community-facing actor in the menstrual health ecosystem. Their involvement ensured that the products reaching girls and women were not only affordable and environmentally sustainable, but also backed by local expertise and a mission aligned with the programme's own objectives.

Distribution points were intentionally diversified to increase accessibility and normalize purchasing behaviour across different settings — from institutional channels (schools, health centres) to more market-based channels (retail shops, factory outlets, VSLAs). Over the lifetime of the programme, 30,000 menstrual kits (or 120,000 reusable pads) were distributed, 17,000 of them through the voucher system.



Reusable products were prioritised over disposable alternatives due to their cost-effectiveness and environmental sustainability. The economics are striking: a reusable kit is priced at 212 Birr without subsidy, covering approximately two years of use — an annual cost of around 106 Birr, reduced to 53 Birr with the 50% subsidy applied under the programme. By comparison, disposable pads in Adama cost a minimum of 65 Birr per pack in 2025, with girls typically using one to two packs per month — representing an annual expenditure of between 780 and 1,560 Birr. Even at the unsubsidised price, a reusable kit costs between 7 and 15 times less per year than disposable alternatives — making affordability a powerful argument for reusables, particularly for low-income women and girls.



Sara Getinet Molla, student and girls' club facilitator. © Maheder Haileselassie Tadesse

PILLAR 3 — MHH-FRIENDLY INFRASTRUCTURE

The third pillar addressed the physical environment in which girls manage their menstruation. Without private, clean and water-enabled facilities, even girls with products and knowledge are not able to manage menstruation safely at school.

The programme originally aimed to cover 90 schools, but was scaled back to **55 schools (40 public, 15 private)** due to inflation and rising construction costs. In the 40 public schools, the programme constructed **23 new latrine blocks (114 seats)** and rehabilitated **67 existing blocks (446 seats)**, equipping 87 blocks with handwashing facilities. Before the intervention, 6 schools had no latrines at all, 17 lacked sex-segregated facilities, and none had a mechanism for safe disposal of menstrual waste. All 55 schools were equipped with dedicated **MHH rooms** — spaces furnished with mattresses, curtains, sanitary products, soap, and water supply connections — and **30 new handwashing stations** were installed alongside the rehabilitation of **65 existing ones**. In two rural schools previously reliant on seasonal ponds, **roof water harvesting systems** were added through direct AFD funding.

This pillar also included the development and distribution of a **Facilities Management, Operation, and Maintenance Manual** translated into Afan Oromo and Amharic, training of **837 school community members** on WASH facility upkeep, **11 joint monitoring visits** with local government partners, and advocacy for the integration of MHH into school infrastructure standards and government budgets.



CARE constructed gender-segregated latrines in participating schools in Adama City



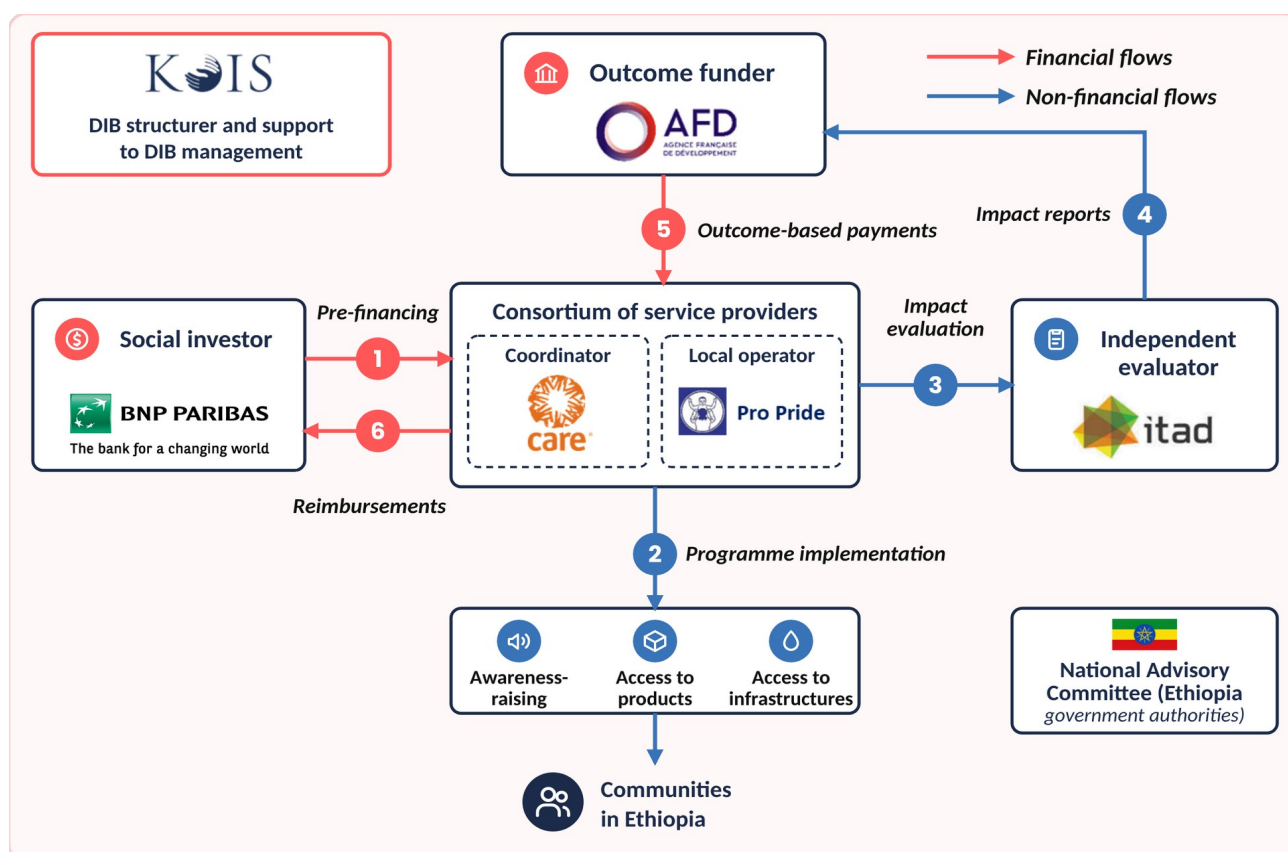
A student resting in the MHH room furnished by CARE

4. THE DEVELOPMENT IMPACT BOND MODEL

A Development Impact Bond (DIB) is a results-based financing instrument that links the repayment of a private investment to the achievement of pre-agreed social outcomes, independently verified by an external evaluator.

It operates across five principal roles:

- The **investor** (typically an impact investor, development or commercial bank – in this case BNP Paribas) provides upfront working capital to the service provider to fund programme delivery. The investor bears the financial risk: if outcomes are not achieved, some or all of their capital may not be repaid.
- The **outcome funder** (typically a donor, government or foundation – in this case AFD) commits to repay the investor — with a potential return — only if and to the extent that the independently verified outcomes are achieved.
- The **service provider** (typically a non-profit organization or a social enterprise – in this case CARE Ethiopia and Pro Pride) implements the programme with greater operational flexibility than under a conventional grant, since they are accountable for results rather than prescribed activities.
- An **independent evaluator** is contracted to verify that the pre-agreed outcomes/targets have been met, providing the evidence base for outcome payments (in this case ITAD/JarCo).
- A **programme manager** or intermediary typically coordinates the governance structure and supports all parties throughout implementation (in this case CARE France).



DIBs differ from traditional payment-by-results contracts in one key respect: the investor provides upfront capital, thereby removing the cash flow risk from the service provider. This makes the instrument particularly relevant for NGOs or social enterprises that could not otherwise sustain a multi-year programme without advance funding. The investor's return — if any — is calibrated to the social impact achieved.

By placing impact evaluation at the heart of the financing mechanism, a DIB transforms the accountability relationship in development programming. It creates incentives for the service provider to focus on outcomes rather than outputs or activities, generates rigorous evidence on what works, and enables real-time programme adaptation as evaluation data becomes available. It also brings together public and private stakeholders — governments, donors, private investors, social and solidary economic actors and evaluators — who rarely sit around the same table, fostering a qualitatively different kind of collaboration.

WHY A DEVELOPMENT IMPACT BOND?

Unlike a standard development project, a DIB combines a wider set of objectives at once — development delivery, rigorous evaluation, and investment — which makes it inherently more ambitious to design and deliver.

The Menstrual Health and Hygiene (MHH) Development Impact Bond (DIB) was designed as a **financing mechanism suited to support innovation in an underfunded and multidimensional development area**. MHH interventions often are limited to one

pillar, making outcomes uncertain and not necessarily sustainable in the long-run. In such contexts, traditional public funding can be constrained by limited funding capacity and search for more impact evidence. DIBs help address this gap by **shifting performance risk to investors** (often private), who can absorb it and are financially compensated to bear the innovation risks, while linking donor payments (in this case a donor public) to verified results, ensuring the efficiency and accountability of public spending.

In this case, the MHH DIB was used to **test an integrated intervention model at scale**, combining three core components of menstrual health: awareness and behaviour change, access to affordable products, and improvements in sanitation infrastructure. By financing this holistic approach, the DIB enabled stakeholders to move beyond fragmented interventions and assess the effectiveness of a comprehensive model in real-world conditions. The MHH DIB allowed to test this innovation at scale in the sectors of health, education and WASH, traditionally funded by public governmental entities.

A second key rationale for the DIB was to **generate rigorous evidence in a field where data remains limited**. Through its embedded evaluation framework, the DIB contributes to building a stronger evidence base on what works in MHH programming — particularly for integrated approaches that address both demand- and supply-side constraints. This is especially important in a sector that has historically been overlooked and underfunded, despite its critical implications for health, education, and gender equality. The MHH DIB specifically aimed to produce robust evidence on the impact of integrated interventions on girls' and women's mobility, participation, and inclusion, which was used by the operator to adjust the intervention and to build the public dialog with governmental stakeholders.

Finally, the DIB was intended to **catalyse systemic change**. By demonstrating measurable results and cost-effectiveness, the model aims to inform public decision-making and support the **scaling and replication of successful interventions**. In the Ethiopian context, this includes engaging local and national authorities to integrate MHH more fully into public policies and service delivery systems. Ultimately, the DIB seeks not only to deliver outcomes within the life of the programme, but to **influence how MHH is prioritised, financed, and implemented in the long term**.

KEY STAKEHOLDERS AND THEIR ROLES

Role	Organisation	Responsibilities
Outcome funder	AFD (Agence Française de Développement)	Committed outcome payments contingent on verified results; represented French bilateral development finance; led local government engagement strategy
Investor	BNP Paribas	Provided upfront working capital from own funds
Service providers	CARE France, CARE Ethiopia and Pro Pride	Led programme design and delivery; managed three implementation pillars; oversaw field teams.
DIB Manager/ Performance Manager	CARE France with support from KOIS	Managed Steering Committees and stakeholder coordination during implementation, including evaluation results and payments validation.
Local government	Ministries of health, education, WASH, finance, women and social affairs and local authorities (Adama city and woreda level)	Provided early government buy-in and alignment with national MHH and WASH priorities and policies, served as a knowledge-sharing and validation forum.
Expert evaluator	Social Impact	Designed the MHH DIB evaluation framework during the DIB structuring phase, including a quasi-experimental approach with baseline, midline and endline evaluations using a Difference-in-Differences methodology
Independent evaluator	ITAD / JarCo	Designed the MHH DIB verification protocol. Implemented the MHH DIB evaluation and verification protocols for all payment indicators as well as knowledge metrics and certified results.
DIB structurer	KOIS	Led the structuring of the MHH DIB.
Legal advisor (pro-bono)	Gide	Legal counsel to the service provider and drafted the MHH DIB legal framework and all related contractual documentation.
Target beneficiaries	Women and girls, boys and men in schools, factories, health centres, communities, universities	Primary beneficiaries of MHH awareness, products and infrastructure

PROGRAMME BUDGET AND OVERALL COST OF THE DIB



PAYMENT METRICS AND PAYMENT STRUCTURE

The DIB incorporated a total of five payment metrics:

Indicator	Definition	Measurement approach
Mobility/ Inclusion	Percentage of women and girls reporting missing no more than one activity due to menstruation, out of six activities (school, work, social activities, cooking, eating, bathing).	Measured on a sample of women and girls at targeted entry points.
MHH Needs Met	Measured using the Menstrual Practice Needs Scale (0–5), a validated composite instrument covering six dimensions of menstrual practice needs including product access, changing and disposing of products, hygiene and washing, and managing pain.	Measured on a sample of women and girls at targeted entry points.
MHH Knowledge	Proportion of target population with adequate and increased knowledge about menarche, menstrual hygiene and menstrual health.	Measured on a sample of women, girls, men and boys at targeted entry points.
Access to MHH-friendly facilities	Number of schools with access to basic water and new rehabilitated and well-maintained sanitation facilities meeting MHH-specific improvements (e.g., availability of water, soap, bin, lock) aligned with national and international guidelines.	Measured in all schools and verified in a sample of schools.
Access to MHH products	Number of vouchers redeemed to purchase MHH kits through the subsidy scheme.	Tracked across all participating shops and verified in a sample of shops.

In addition to these payment metrics, a broader set of informative indicators (e.g. confidence, attendance, practices, and perceptions) was monitored to support learning and contextual interpretation of results.

Payments from AFD to BNP Paribas were structured around the achievement of pre-agreed targets on these indicators at midline (2023) and endline (2024).

Following baseline results, the Mobility and Inclusion indicator was removed as a payment metric, as initial data showed that participation constraints were already low (approximately 90% reporting no limitations), making further measurable improvement unrealistic in the Adama urban context. It was nevertheless retained as a learning indicator.

5. EVALUATION AND VERIFICATION FRAMEWORK

While the design of the MHH DIB evaluation framework was led by Social Impact, the independent impact evaluation of the MHH DIB was conducted by ITAD in partnership with JarCo (data collection) and Statistics for Sustainable Development (data analysis), served a dual purpose: to verify outcomes for payment purposes and to generate a rigorous, replicable body of evidence on MHH interventions in the Ethiopian context.

A defining feature of the MHH DIB was the combination of two complementary approaches to performance measurement: a rigorous quasi experimental impact evaluation for behavioural outcomes, and a third-party verification process for service delivery outputs.

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For its first development impact bond, AFD's ambition was to combine a rigorous evaluation protocol and ambitious outcomes targets. Internally, we had to justify that the DIB was going to achieve more than a traditional grant-funded project, and act as a catalytic project driving the path for long-standing systemic changes in the MHH sector.

**AFD - Virginie Arnaud
Le Pape**

DIFFERENCE-IN-DIFFERENCES METHODOLOGY

For Indicators 1 to 3 (Mobility and Inclusion, MHH Needs Met, and MHH Knowledge), outcomes were assessed through a Difference-in-Differences (DiD) design with a matched comparison group. The core logic of DiD is straightforward: rather than comparing outcomes in the intervention area only, or simply measuring change over time in the treatment group (which could reflect external trends unrelated to the programme), DiD compares the change in outcomes in the intervention area against the change in outcomes in a comparable control area over the same period. This approach allows the evaluation to isolate the effect of the programme from other concurrent factors — such as economic shifts, seasonal variation, or national campaigns — that might have influenced outcomes regardless of the intervention.

Formally, the DiD estimator is:

$$\text{Impact} = (\text{Outcome}_{at2} - \text{Outcome}_{at1}) - (\text{Outcome}_{ct2} - \text{Outcome}_{ct1})$$

Where subscript 't' denotes the treatment group (Adama), 'c' the control group (Jimma), 't₁' the pre-intervention period (baseline), and 't₂' the post-intervention period (endline). The resulting estimate captures the additional change in the treatment area over and above what would have been observed in the absence of the programme.

The selection of a DiD design reflects its strong suitability for real-world programme evaluation. Compared to a randomised controlled trial, it is more cost-effective and operationally feasible, particularly in settings where randomisation is not possible due to ethical, logistical, or political constraints. It also allows for robust adjustment of pre-existing differences between areas, strengthening causal inference in non-experimental contexts. Importantly, DiD is well suited to area-level interventions, such as those targeting schools, communities, and service delivery systems, where individual-level randomisation is impractical.

What made this evaluation particularly rigorous is the combination of statistical design choices: **propensity score matching** to ensure the treatment and control groups are as comparable as possible; a **10% significance level (90% confidence) and 80% statistical power** as the basis for sample size calculations; **three independent survey rounds** (baseline 2022, midline 2023, endline 2025) with approximately 1,350 respondents each; and the use of the **validated MPNS-36 instrument for Indicator 2** — a peer-reviewed tool developed specifically for measuring menstrual health needs.

VERIFICATION METHODOLOGY

Indicators 4 and 5 (Access to MHH-friendly infrastructure and Access to MHH products) were evaluated through a separate third-party verification process focused on validating the accuracy and completeness of reported outputs. Verification combined secondary data review (e.g. programme monitoring data, voucher records) with primary field verification, including direct observation of school facilities and recounting of redeemed vouchers at service delivery points.

Verification followed predefined protocols, including sampling strategies and escalation procedures where discrepancies exceeded agreed thresholds, ensuring that reported results were accurate, auditable, and robust for payment decisions.

STUDY DESIGN & DATA COLLECTION

For the impact evaluation of Indicators 1, 2 and 3, data collection was conducted across three rounds of surveys:

- **Baseline (2022):** conducted before programme activities commenced, establishing pre-intervention outcome levels in both Adama and the matched control area.
- **Midline (2023):** conducted at the programme's halfway point to assess early progress and inform adaptive management decisions by the steering committee.
- **Endline (2024):** the definitive outcome measurement round, providing the data for final outcome payment calculations.

Over 4,000 Surveys were conducted with representative samples of boys and girls in schools, women and men in health centres, factories and communities in both Adama and the comparison area. The Menstrual Practice Needs Scale (MPNS), a validated psychometric instrument covering six dimensions of menstrual practice needs, was used as the primary composite outcome measure. Additional instruments captured knowledge, infrastructure compliance and product use.

In parallel, verification of Indicators 4 and 5 (infrastructure and product access) was conducted through annual third-party verification exercises, aligned with the DIB payment schedule.

TARGET SETTING

During the structuring phase of the DIB, a rigorous and evidence-based process was undertaken to define outcome targets and ensure their credibility, feasibility, and alignment with the evaluation design.

This process began with the identification of contextualised benchmarks to inform expected results and plausible effect sizes. A structured review of existing evidence was conducted, drawing on interventions with similar objectives and applying three key prioritisation criteria:

- **Relevance of the programme:** Priority was given to studies directly related to menstrual health and hygiene (MHH), followed by those in closely related sectors such as sexual and reproductive health (SRHR) and water, sanitation and hygiene (WASH).
- **Evaluation design:** Greater weight was placed on rigorous studies —

particularly those using experimental or quasi-experimental methods — and on evaluations employing methodologies comparable to the DIB's Difference-in-Differences approach.

- **Similarity of context:** Benchmarks were prioritised from studies conducted in Ethiopia where available, followed by evidence from Sub-Saharan Africa and other contexts with comparable socio-economic conditions, MHH challenges, and gender inequality dynamics.

Building on this evidence base, power calculations were conducted to determine the minimum detectable effects under the chosen evaluation design and sample size parameters. This ensured that targets were not only ambitious but also statistically measurable within the constraints of the study.

In parallel, a review of existing data and studies from Ethiopia was undertaken to inform realistic baseline assumptions for each indicator. This helped ground target-setting in the local context and avoid reliance on non-transferable benchmarks.

Finally, proposed benchmarks and targets were iteratively discussed and validated with all DIB stakeholders, including outcome funder, investor, implementers, and evaluator. This process ensured a shared understanding of the level of ambition, the statistical implications of the targets, and the conditions required for success.

CONTROL AREA SELECTION

The control area (Jimma) was selected to match the intervention city (Adama) as closely as possible across key pre-programme characteristics, including demographic profile, urban and peri-urban composition, estimated levels of MHH awareness at feasibility study phase, school infrastructure, and access to menstrual products. Jimma is a major urban centre located in south-western Ethiopia, while Adama lies in central-eastern Ethiopia; despite this geographic separation, both cities share broadly comparable socio-economic features and serve as regional hubs with similar service delivery structures.

To ensure comparability, the evaluation design relied on matched sampling across common entry points — primarily schools and communities — in both locations. In addition, statistical matching techniques (propensity score matching) were applied to adjust for observable differences between populations and improve balance between treatment and control groups. This combination of design and analytical adjustments was intended to strengthen the validity of the comparison and support the core parallel trends assumption underlying the Difference-in-Differences (DiD) methodology — namely, that in the absence of the programme, outcomes in Adama and Jimma would have followed similar trajectories over time.

6. SETTING UP THE DIB

The initiative originated from AFD's intention to explore the potential of results-based financing in menstrual health, as part of its wider strategy to mobilise private capital for international development and start investing in the MHH historically underfunded sector.

This ambition was affirmed during France's G7 commitments on gender equality in 2019, and was aligned with France's experimentation of social impact bonds in France designed to bring innovation in the public social sector, and the rationale behind the creation of the Fund for Innovation in Development (FID) hosted by AFD, chaired by Esther Duflo and inaugurated in December 2020. Moreover, the investment into a DIB corresponds to AFD's growing commitment to result-based financing mechanisms, impact accountability and rigorous impact evaluation.

To this end, AFD commissioned KOIS, selected through an international competitive process, to assess the feasibility of a development impact bond in the MHH sector in a priority country supported by AFD in Sub-Saharan Africa (2019/2020). The resulting feasibility study identified **Ethiopia and Niger** as suitable pilot countries, based on a combination of factors including the scale of MHH needs, the presence of established and experienced local service providers, and a conducive public policy and government support on MHH and gender equality. The selection of two countries was also intended to **test the social innovation across various contexts**. In both cases, an urban focus was chosen to leverage synergies with AFD's existing WASH infrastructure programmes, although a territorial approach with entry points outside schools was also designed to ensure the most vulnerable communities were reached by the projects.

Because of COVID 19 pandemic, AFD decided to move forward with one project at a time, and Ethiopia was retained as the first implementing country.

PROCESS OF SELECTING STAKEHOLDERS AND STRUCTURING THE PROJECT

The structuring phase lasted approximately 18 months (2020/2021), covering the following steps:

- **Selection of the implementation partners through a competitive international call for proposals.** A consortium led by the CARE France chapter in partnership with CARE International was selected in both countries in June 2020. CARE's internal economic **innovation unit** played a key role, having previously

explored **results-based financing and private sector engagement**, and positioning the organization to pilot a Development Impact Bond.

- **Design of the Evaluation Framework**, in partnership with Social Impact, a leading monitoring, evaluation, and learning provider. Key steps included:
 - Development of a Theory of Change (ToC) capturing the links between awareness, access, infrastructure, and long-term outcomes such as mobility and inclusion
 - Selection of five payment indicators, based on extensive literature review, feasibility of measurement, trade-offs between robustness and operational simplicity
 - Design of a Difference-in-Differences (DiD) methodology to attribute impact
 - Establishment of baseline values and performance targets for each indicator
- **Selection of the social investor and independent evaluator** through competitive international process to ensure strong technical capacity and value for money. In May 2021, BNP Paribas was ultimately selected as investor, building on its prior experience with social impact bonds in France, while ITAD was appointed as independent evaluator for the DIB.
- **Contracts negotiation**: with the *probono* support of Gide, the multi-partite framework agreement and the financing agreements were prepared and discussed through multiple rounds of negotiations between CARE France, CARE Ethiopia, AFD, BNP Paribas and KOIS, which were concluded in January 2022.
- **Governance setup**: a quarterly steering committee was established comprising all principal stakeholders to review performance against targets and validate strategic decisions. A National Advisory Committee (NAC) was created to anchor the DIB within the Ethiopian institutional ecosystem with representatives from government bodies (health, education, women and social affairs, WASH, finance and local authorities).

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“Working alongside CARE France’s dynamic and dedicated teams has been truly inspiring. We are delighted to have contributed, on a pro bono basis, to the structuring and negotiation of this innovative contractual arrangement bringing together a private investor, a public donor, and implementing partners. The launch of this first Development Impact Bond dedicated to menstrual health and hygiene in Ethiopia represents a pioneering initiative with significant social impact.

The experience has been particularly rewarding for all of us, and we are proud to have played a part, in our own way, in supporting such a meaningful and impactful project.”

Hubert du Vignaux, Gide LOYRETTE NOUEL

KEY CHALLENGES OF THE STRUCTURING PHASE

External events impacting the program

Because of COVID-19 pandemic, the program size had to be adjusted downward, which impacted the scope of the intervention, the number of intervention schools and some activities. In addition, the structuring phase was slowed down, field missions being frozen and political agenda being focused on health emergencies.

Security issues started in Ethiopia in late 2021, leading to additional adjustments to the intervention and structuring of the DIB. The Tigray conflict cast uncertainty over the programme's launch during the legal structuring and baseline evaluation phase, raising concerns about whether the conflict might spread to other regions and jeopardise the start of implementation. The programme was further affected by significant contextual disruptions during implementation. The ongoing civil conflict required a reconfiguration of the intervention footprint, with activities shifting from peri-urban to more accessible urban schools in certain districts in order to ensure the safety of the teams operating on the ground. These adjustments, made in partnership with local government authorities, while necessary, disrupted the original sampling strategy and altered the composition of beneficiaries. In particular, the increased share of primary schools—where many girls

had not yet reached menarche—reduced the relevance and potential uptake of certain intervention components, notably the menstrual product voucher scheme.

The outbreak of the war in Ukraine in February 2022 added a further layer of disruption, with immediate consequences felt from the programme's earliest stages. Supply chain disruptions caused shortages of raw materials, delays in finalising contracts with construction companies, and a sharp inflationary shock driven by the geopolitical context. Compounded by local monetary pressures and currency depreciation, rising costs affected both operational budgets and infrastructure investments, particularly within the WASH component. This required continuous budget reallocation, scaling back of certain activities, and a reduction in the number of schools ultimately reached, thereby affecting the footprint and outreach of the intervention.

In addition, delays in getting the MOU from local government delayed the initial funding from the investor by a few months. The service provider also encountered technical challenges, especially the infrastructure work, which further delayed the implementation of some activities and the associated outcomes.

Changes to the intervention and adjustments to the evaluation framework were negotiated and documented to preserve the spirit of the DIB and the search for impact. Workshops were organized among the service provider and the independent evaluator to improve the delivery and reporting for the DIB.



Rahel Gebrehiwot, nurse at Mukeyiya Haro Health Centre. © Maheder Haileselassie Tadesse

Learning curve for most DIB stakeholders

The DIB instrument had only been tested a dozen of times in developing countries when the MHH DIB was launched. It was a first for AFD, CARE and the independent evaluator. Although BNP Paribas was experienced with the instrument, it was their first investment in a developing country. Conversely, although AFD operates mainly in developing countries, uses different result-based finance mechanisms, and has experience in RCT evaluations and was able to operate via its existing procedures, it had never engaged in a DIB operation. The structuring phase proved highly time-consuming and resource-intensive, reflecting both the novelty of the instrument and the complexity of aligning multiple stakeholders, who are not used to work together.

For an NGO like CARE, this type of financing structure is far removed from conventional grant funding — and with that comes an unfamiliar requirement: securing specialised external legal expertise. Unlike traditional financing mechanisms, a DIB requires rigorous legal documentation of risk-sharing arrangements and performance-based financing mechanisms, which goes well beyond the in-house capacity most NGOs can mobilise. In the case of the MHH DIB, the law firm Gide provided pro bono legal support, which proved invaluable in bringing clarity and confidence to the structuring process. The structuring and documentation process also required guidance from KOIS on financial and operational frameworks.



"A defining feature of the MHH DIB was the way impact measurement structured every dimension of stakeholder engagement, underpinned by a shared willingness of all parties to maximise impact. Unlike conventional grant-funded programmes, where reporting tends to be retrospective, the DIB's results-based architecture continuously oriented investors, implementers, donors, and evaluators toward the same question: are we on track to deliver verified impact? Steering committee discussions, operational decisions, and budget adjustments were all driven by this collective commitment, creating an unusual degree of alignment across stakeholders with very different institutional backgrounds.

CARE France, Thuy-Anne Stricher

Co-construction challenges

The sequencing in the selection of DIB stakeholders introduced challenges to alignment among stakeholders. The selection of the investor close to the end of the structuring phase, through a competitive process focused on a largely predefined financial product, limited the investor's ability to meaningfully contribute to earlier design stages—particularly the development of the evaluation framework. However the flexibility of the DIB governance helped partially mitigate this constraint by enabling discussions to address challenges and incorporate private sector perspectives, key elements of the DIB's incentive structure were not fully co-constructed across all parties reducing initial alignment and contributing to friction during implementation.

Similarly, the independent evaluator was selected after the design of the evaluation framework, through a standard public procurement led by AFD in consultation with other DIB stakeholders but was contracted by AFD only, which created some asymmetry in the governance of the DIB. While this approach ensured independence and competitive procurement required by public agencies such as AFD, it also meant that the evaluator worked for AFD first, and sometimes was not available for other stakeholders. In practice, the fact that the evaluator did not design the evaluation framework constrained opportunities for collaborative refinement of indicators and methodologies, and occasionally led to confusion during implementation.

KEY ENABLING FACTOR: SHARED COMMITMENT TO INNOVATION

Despite these multiple challenges, the DIB was successfully launched early 2022 and implemented over a period of three years, largely due to a strong and sustained commitment toward innovation and collaboration across all stakeholders. All parties demonstrated both institutional and personal engagement with the project: AFD provided clear internal backing at leadership level, BNP Paribas mobilised capital through its own funds and accepted the financial risk, and CARE had been preparing for such an approach for several years through its innovation unit. This shared commitment proved decisive in sustaining momentum throughout a complex and lengthy structuring phase, ultimately enabling the programme to move forward despite its structural and contextual constraints.

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“For an ideal alignment of interests, everyone should be around the table from day one — but what really made the difference here was the specific adaptable governance of the DIB, which gives flexibility to the stakeholders to adjust the project to the realities on the ground and external uncertainties.”

BNP Paribas, Maha Keramane

STRATEGIES FOR SUSTAINABILITY AND LONG-TERM IMPACT

The programme placed strong emphasis on sustaining awareness and advocacy efforts by building the capacity of key local actors and embedding behaviour change approaches within existing systems. School communities, health professionals, industrial park management, factory workers, and community members were trained to continue delivering menstrual health education beyond the project period. This was reinforced through the distribution of diverse information, education, and communication materials including printed, audio, and mini-media tools enabling ongoing awareness-raising at school and community levels. Importantly, menstrual health and hygiene was integrated into routine health education sessions in health facilities, ensuring that MHH messaging remains part of continuous public health outreach and contributes to long-term behavioural change.

In addition, the programme strengthened the sustainability of menstrual product access through a market-based and community-driven approach. A total of 55 distribution points were established, including schools, health centres, pharmacies, retail shops, and factories, of which 28 were directly linked to the reusable pad supplier, creating a structured and diversified supply network. To further support access among vulnerable populations, the programme formed and strengthened 10 Village Savings and Loan Association (VSLA) groups, integrating the distribution of reusable pads into their income-generating activities. This approach not only expanded access to affordable menstrual products but also contributed to local economic empowerment and ensured continued availability of products beyond the project lifecycle.



WASH club members and school staff at a programme school

Moreover, the programme ensured the sustainability of WASH infrastructure by promoting local ownership and institutional integration. Facilities Management, Operation, and Maintenance Manuals, along with waste disposal guidelines, were distributed to support the proper upkeep of school sanitation facilities. In addition, the institutionalization of verification and monitoring tools within local government structures

enabled education, water, and health authorities to incorporate these standards into their routine supervision and performance assessments.

Together, these efforts strengthened accountability, ensured the continued functionality of infrastructure, and anchored MHH practices within local systems, thereby supporting sustained service delivery and long-term impact.

7. RESULTS AND OUTCOMES

The independent endline evaluation, conducted by ITAD/JarCo, found strong evidence that the programme improved key menstrual health outcomes for women and girls in the intervention area.

IMPACT EVALUATION AND VERIFICATION RESULTS

Payment Indicator	Baseline	Endline Result	Target	Target Met?
1. Mobility & inclusion (dropped after baseline)	~90% reporting no constraints	Not used for payment (limited change observed)	N/A	Not applicable
2. MHH needs met (MPNS score, scale 0-3)	2.06	+0.39 DiD (Adama: 2.47 vs Jimma: 2.17)	+0.10 DiD	Exceeded
3. MHH knowledge (community, incl. men & boys)	32%	+13.2% DiD (+17.3pp female and -7.1pp male between baseline and endline in Adama)	+16% DiD	Not met
4. Access to MHH-friendly WASH infrastructure	0 schools meeting full criteria at baseline	100% of target (55 schools compliant)	90% of schools	Exceeded
5. Access to MHH products (voucher redemption)	No commercial reusable pads used at baseline	104% of target (17,669 vouchers redeemed)	80% redemption rate	Exceeded

The most significant result relates to **MHH needs met**, measured through the Menstrual Practice Needs Scale (MPNS-36 scored 0 to 3). The programme achieved a DiD improvement of +0.39, substantially exceeding the target of +0.10s. This reflects a meaningful and statistically significant improvement in the ability of women and girls to manage their menstrual health needs in Adama relative to the control group.

In contrast, the programme achieved limited progress on **knowledge outcomes**. The DiD result for the knowledge indicator was +13.2 percentage points, below the target of +16 percentage points. This overall result masks divergent trends: while knowledge significantly improved among women and girls, exceeding expectations, it did not among men and boys, affecting aggregate performance. The evaluation further suggests that MHH education efforts did not systematically reach male audiences, highlighting a gap in programme design and delivery. Interviewees across all organisations acknowledge this reflected a design error: the same questions and awareness-raising sessions were used for men and women, when in fact different content and measurement approaches were needed for male audiences.

Results for **infrastructure and product access**—certified through independent third-party verification processes—were particularly strong, ultimately exceeding targets following weaker-than-expected midline performance that prompted stakeholders to adjust the intervention—most notably by increasing subsidy levels of MHH kits, expanding the distribution scope to include additional entry points (e.g., health centres) and strengthening demand-generation efforts, as detailed in the implementation challenges section.

Regarding informative indicators, the evaluation found **strong improvements in confidence**, with a significant increase in the proportion of women and girls reporting that they feel confident managing menstruation at school or work. However, the analysis suggests that a substantial share of these gains occurred between baseline and midline, making attribution to the full intervention more complex.

The programme also contributed to increased **adoption of improved menstrual products**, with the use of reusable pads rising from 2% at baseline to 13% at endline in Adama. This increase is closely linked to the voucher-based subsidy mechanism, which improved affordability and encouraged trial and uptake.



Pupils attending a class at one of the programme schools

BROADER REACH AND QUANTITATIVE OUTPUTS

Output	Number
Total people reached	378,720
School students	65,966 (34,755 girls, 31211 boys)
Factory workers (Adama Industrial Park)	1,152
Health workers	250 Health Extension Workers (HEWs) who cascaded knowledge to 72,680 health centre visitors
Peri-urban women's group members (VSLA)	220
Menstrual kits distributed in total	30,000
Menstrual kits purchased via the voucher system	17,669
Latrines built or renovated	23 new latrines blocks (114 seats) and 67 (446 seats) rehabilitated

FINANCIAL OUTCOMES

BNP Paribas achieved capital preservation and a return of approximately 0.5% IRR on its investment — a genuine financial risk that materialised in partial success. As BNP Paribas noted: “This was a real risk-taking exercise - returns were fully tied to achieving ambitious and unpredictable impact results, thus capital recovery wasn’t guaranteed. The fact that we preserved it and generated a small return, mostly thanks to the results-based mindset, sends a strong positive signal for impact investing in this sector.” The performance-based payment mechanisms of the MHH DIB indeed did not guarantee the capital invested by BNP Paribas, and the payment of a premium was conditioned to the outcome targets that were ambitious. The unspent amount on the committed AFD grant is being reused to finance additional activities carried by CARE in five additional public schools in Adama, and to support the scale-up phase of the MHH DIB through the work of a consultant that is working on a road map with the Ethiopian government stakeholders to translate DIB results into policy dialogue and explore pathways for scaling the intervention model at national level.

8. THE DIB EFFECT: KEY SUCCESSES

A central question in assessing the MHH Development Impact Bond is whether the DIB mechanism itself—beyond the intervention—changed how the programme was designed, implemented, and scaled. Evidence from the MHH DIB suggests that it did, generating several distinctive benefits that would likely not have emerged under traditional grant financing.

REAL-TIME PROGRAMME ADAPTATION DRIVEN BY EVALUATION

The most significant 'DIB effect' was the introduction of continuous performance monitoring and data-driven adaptation, enabled by the combination of independent evaluation and structured DIB governance. This benefit deserves emphasis: the DIB fundamentally changed the way the implementing organisation worked. Unlike in conventional grant-funded programmes, CARE was compelled to be more rigorous, more proactive, and more responsive — not as a reporting obligation, but as a condition of performance. Evaluation findings were not filed away between milestones; they fed directly into operational decisions. This is a genuine shift in how NGOs engage with evidence, and one that has implications well beyond this programme. Several concrete examples stand out:

- **Voucher system revision:** midline data showed the voucher scheme was not reaching the targeted beneficiaries. In schools, many recipients had not yet reached menarche, while in factories uptake was hindered by rumours linking the voucher design (“666”) to negative symbolism. At the same time, widespread free distribution of disposable pads reduced incentives to adopt reusables. In response, the programme refined targeting, strengthened awareness efforts, and increased subsidy levels to boost uptake.
- **Infrastructure quality:** AFD deployed an expert to inspect school constructions after early data flagged quality concerns. Corrective measures were put in place, improving the quality of the infrastructure finally delivered by the program. In addition, the rigorous verification process required by the independent verification forced the service provider to improve the quality of the maintenance monitoring.

- **Awareness raising prioritisation:** when midline data showed that awareness campaigns had the strongest effect on pad adoption (63% of users cited campaigns as the reason for adoption), the programme doubled down on radio and school-based sensitisation in the final year.
- **Knowledge indicator:** the final evaluation generated actionable insights—particularly on the need for differentiated approaches for men and boys—which can inform future programme design. Unfortunately, the midline results did not identify the potential shortfall of the programme.

The ongoing impact evaluation created strong incentive for the service provider to adjust its intervention and focus on what works, more than would have been done under a traditional grant.



“Implementing the MHH DIB required CARE Ethiopia and Pro Pride, to move beyond the delivery of predefined activities and toward continuously refining the programme based on emerging evidence. The integrated approach combining awareness and advocacy, access to menstrual products, and MHH focused WASH infrastructure, particularly in schools together with a rigorous verification framework, strengthened operational accountability and precision. Continuous verification not only enhanced performance, but also transformed how teams engaged with data, embedding a culture of learning, adaptation, and continuous improvement throughout implementation.”

CARE Ethiopia, Meriem Ali

STRENGTHENED ACCOUNTABILITY AND FOCUS ON OUTCOMES

The DIB structure fundamentally shifted the programme’s focus from monitoring budgets and activities to measurable outcomes. The presence of an independent evaluator and payment linked to verified results, combined with the very active presence of all stakeholders, created a level of discipline and transparency not comparable with standard programmes.

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“The DIB payment indicators were designed as outcomes rather than outputs in order to foster long-term impact. For example, rather than measuring the number of pads distributed in schools, the DIB measured the adoption rate of girls being prepared to pay for pads. Rather than measuring the number of restrooms built or renovated, the DIB measured the access rate to well-maintained school facilities as it was key to ensure schools were going to plan and organize the maintenance of the construction work financed by the project”

AFD, Margaux Chinal

This emphasis on evidence and verification ensured that programme success was assessed not by outputs alone, but by demonstrated improvements in beneficiaries' lives.



Bamlak Mnda, pupil at Geda Kilole Primary School. © Maheder Haileselassie Tadesse

ENHANCED MULTI-STAKEHOLDER COLLABORATION

The quarterly steering committee brought together actors who would not typically sit around the same table: a French development bank, a private French commercial bank, a Franco-Ethiopian NGO consortium, an independent British evaluator and its Ethiopia-based evaluator partner, shattering “ideological barriers”. All parties report that this governance structure generated a level of engagement, knowledge-sharing and mutual accountability that exceeded what they had experienced in conventional grant-making relationships.

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“By its partnership-based, tailor-made, and results-oriented nature, the MHH DIB was a transformative experience that led each stakeholder outside of its comfort zone: we collectively agreed to experiment something different, to move away from traditional logics, roles and interactions, and to share the risks as well as the ambitions.”

BNP Paribas, Silvia Bastos Ribeiro



A student and a WASH club lead washed her hands on CARE-constructed handwash at Bisike School at Adama Woreda

ORGANISATIONAL LEARNING AND CAPACITY DEVELOPMENT



“The work done by the independent evaluator goes beyond the certification of outcomes: they worked closely with the service provider on how to improve the quality of delivered services and the accountability of partners, which should have long-term impact”

AFD, Margaux Chinal

The DIB also generated significant capacity-building effects, particularly for implementing partners.

CARE and its NGO partner (Pro Pride) strengthened capabilities in impact measurement and data collection, verification and use for performance management and decision-making, financial management aligned with other stakeholders' expectations, results-based programme management.

These skills are now being applied beyond the DIB, contributing to longer-term institutional strengthening. The programme also enhanced technical capacities in areas such as social and behavioural change communication and integrated MHH programming.

CATALYST FOR INVESTMENTS

After the DIB project's launch and following the results of the 1st evaluation, AFD decided to finance another project to improve the DIB's objectives and deepen the work on MHH awareness raising and market solutions for quality and affordable menstrual hygiene products in Ethiopia. The project was funded under the French Commercial Capacity Building Program (PRCC in French) managed by AFD. This segment of the project focused on the development of locally manufactured, sustainable pads (including an R&D initiative on biodegradable pads using materials such as bamboo fibre and banana leaf led by The Ethiopian Institute of Textile and Fashion Technology -EiTEX- at the Bahir Dar university), as well as the creation of a public-private dialogue platform seeking systemic changes and market development to provide girls and women in Ethiopia with sustainable access to quality, affordable, and environmentally friendly MH products (Menstrual Advancement Platform - MAP), managed by EAGate. Moreover, AFD has engaged with several development and philanthropic institutions to continue to invest in the MHH sector.

Contribution to policy dialogue and potential scale-up

One of the most significant achievements of the DIB was its contribution to government engagement and policy influence, particularly through the National Advisory Committee (NAC), bringing together Ethiopian government representatives (Ministries of health, education, WASH, finance, women and social affairs and local authorities at city and woreda level) with development partners, NGOs and technical experts.

The NAC met at three occasions during the structuring and implementation of the DIB. These forums enabled early buy-in from government stakeholders, alignment with national MHH and WASH priorities and policies, knowledge sharing, the validation and dissemination of results, and supported the translation of evidence into policy dialogue. Importantly, the NAC also created a rare cross-sectoral platform for dialogue on menstrual health management, bringing together ministries that do not traditionally work together on this issue and encouraging them to collectively reflect on their respective responsibilities and roles in addressing such a transversal challenge. This helped position menstrual health not only as a health issue, but also as an education, gender, infrastructure, and public finance priority requiring coordinated action across government actors.



MHH IN ETHIOPIA'S NATIONAL EDUCATION FRAMEWORK

The MHH DIB contributed to a broader policy dialogue on menstrual health priorities in Ethiopia. On 10 April 2025, the Ethiopian government published a national education policy mandating that:

"All general education institutions shall ensure the availability of clean and adequate drinking water, well-maintained classrooms, and appropriate school premises. They must also provide separate restrooms for male and female students, as well as restrooms for teachers. Additionally, starting from the 5th grade, schools shall supply necessary hygiene materials for female students."

Education Proclamation, April 10, 2025

This marks a significant step toward institutionalising the standards that the MHH DIB piloted at programme level — embedding infrastructure requirements and product provision into the national education framework.

The ultimate objective remains to convince the Ministry of Finance to invest through loan in a national program to scale the DIB project across the country. Therefore, AFD has been supporting the development of a scale-up study elaborating pathways for scaling MHH investments in 9 secondary cities across 6 regions, based on DIB evidence. This project could be the first MHH project financed through loan and at this scale.

This engagement has already produced tangible results, including the integration of Menstrual Health and Hygiene (MHH) awareness sessions into routine health education programmes in Adama health centres. In addition, local education authorities have committed to supporting the scale-up of MHH practices across schools and to considering the inclusion of MHH products within standard school supply systems. Furthermore, the City Administration Water and Energy Bureau and the Municipality Office committed to ensuring continuous water supply to schools facing water shortages, supporting schools affected by interrupted services due to unpaid water bills,

and strengthening supervision to prevent similar challenges in the future. The Health Bureau/office has also committed to working closely with other government structures to ensure that hygiene and sanitation activities are actively implemented in schools targeted by the MHH DIB project and beyond.

Broader social and behavioural change effects

Beyond its core indicators, the DIB contributed to meaningful social change, according to ITAD's endline evaluation and CARE's completion report, particularly within schools and communities.

- School culture shifted significantly, with menstruation becoming more openly discussed and supported by teachers and peers
- Male engagement increased, with boys and men showing greater awareness and support in some contexts
- Students acted as change agents, diffusing knowledge within households and communities
- Engagement with religious leaders helped reframe misconceptions and reduce stigma

These ripple effects highlight the potential of integrated MHH interventions to drive normative change beyond immediate programme boundaries.

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“From the beginning, it has been a priority for AFD to engage with the government and support their vision and programs to promote gender equality. Through the NAC meetings, we were able to present an innovative and integrated MHH intervention as well as rigorous impact data collected by an evaluation independent expert.”

— AFD, Kidist Abebe

9. KEY IMPLEMENTATION CHALLENGES

Quasi-experimental approach

The evaluation design faced typical challenges related to the comparability of the two study groups. While Adama and Jimma were selected for their overall similarity, important baseline differences remained—particularly in socio-cultural characteristics such as religion—which could not be fully corrected through statistical matching and required significant weighting adjustments. In addition, changes in the intervention due to external events mentioned above also affected the consistency of the sample over time, introducing further comparability issues across survey rounds. These factors underscore the inherent difficulty of applying Difference-in-Differences methodologies in dynamic, real-world settings where perfect equivalence between groups cannot be guaranteed.

Another key challenge emerged at midline, when data revealed that outcomes in the control area (Jimma) were improving more rapidly than anticipated. This triggered the need for further analysis from the evaluator that showed that several MHH programmes (external to the DIB project) were conducted by NGOs and local governments both in Adama and in Jimma. This unexpected dynamic reduced the observable difference between treatment and control groups, thereby compressing the estimated programme impact and making it more difficult both to isolate the effect of the DIB intervention



Hirut Tegene Degefe, maths teacher

© Maheder Haileselassie Tadese

and to achieve the predefined Difference-in-Differences targets.

Despite these constraints, stakeholders consider the evaluation to be among the most rigorous conducted in the MHH sector, providing valuable insights into programme effectiveness and contributing meaningfully to the global evidence base.

Third party evaluation

It is worth recalling that the MHH DIB involved two distinct evaluators with separate roles: the first designed the evaluation framework and defined the indicators — a technically rigorous exercise but conducted independently of field realities – as per the design of the DIB structuring phase; the second, contracted separately, was responsible for data collection, measurement, and certification on the ground, inheriting a set of indicators and protocols it had no hand in designing.

This sequential approach introduced practical challenges. Some adjustments and clarifications to the protocol were necessary to account for field realities, and

the certifying evaluator occasionally had to navigate the gap between the designed framework and the conditions encountered on the ground. These adjustments occasionally triggered debates on the interpretation of results and tensions between the evaluator and the implementing organisation. Managing these relationships constructively, within a governance structure that keeps all parties aligned around shared impact goals, is one of the important operational challenges of the DIB model.

Implementing the territorial approach

Delivering on the territorial approach — one of the programme's most distinctive innovations — proved more challenging in practice than anticipated, while remaining relevant.

To complement schools, which were the primary entry point for reaching girls, the programme was also deployed among women in factories and Village Savings and Loan Associations (VSLAs), with universities originally included in the design. In practice, each entry point beyond schools encountered its own obstacles. Access to factories required navigating multiple administrative layers, and local authorities did not always facilitate entry, adding delays and limiting reach within the industrial park. University access was not authorised by local authorities, removing an entry point from the original design. The number of VSLAs reached was reduced due to budget constraints. And at the evaluation level, the absence of an equivalent industrial park in Jimma meant that factory-based interventions could unfortunately not be captured within the DiD framework.

What was achieved beyond schools nonetheless deserves recognition.

Factories concentrate large numbers of low-income women with significant and largely unaddressed MHH needs — an entry point rarely targeted by conventional programmes. The programme's ability to operate in this context, despite the administrative and logistical hurdles, stands as one of its most meaningful innovations and a proof of concept for future interventions.

Organisational adaptation under sustained pressure

Across the three years of implementation, CARE faced an unusually demanding operating environment — one that required constant adaptation on multiple fronts simultaneously. Political instability, the ripple effects of the Tigray conflict, inflationary shocks, supply chain disruptions, construction delays, and the continuous demands of a rigorous evaluation framework all converged on the implementing team at once.

For an NGO accustomed to grant-based programme management in its operational and systems set-up, the DIB model adds a distinct layer of complexity and opportunity to adapt: performance is monitored in real time, budget management is scrutinised to an investor-grade standard, and every operational decision carries potential implications for outcome measurement and payment. Managing this complexity — while maintaining the quality and reach of the intervention on the ground — required a degree of organisational agility and resilience that should not be underestimated.

The onboarding phase demands significantly more time than in conventional programmes — the governance structure, the results-based logic, and the multi-stakeholder dynamics

all require a period of alignment before implementation can reach full speed. Once underway, the model places heightened demands on the implementing organisation: greater reactivity, tighter monitoring, and a continuous focus on performance that sits alongside — and sometimes in tension with — the day-to-day work of programme delivery.

Adequate resourcing, robust internal coordination structures, and genuine senior management commitment are therefore not optional extras — they are prerequisites for success.

Multi-stakeholders governance

The DIB structure required a high level of coordination across all stakeholders, involving continuous alignment and decision-making among investors, outcome funders and implementing partners—each with distinct mandates and expectations. While this multi-layered governance model functioned effectively and ultimately strengthened collaboration and joint ownership of results, it was inherently time-intensive and required sustained engagement throughout the programme.

Because the DIB instrument was new to most stakeholders, this demand was at times challenging to absorb, particularly for operational teams, but it also contributed to the depth of dialogue and the quality of decision-making observed over the course of implementation.

Financial management culture

Differences in financial management practices between the private investor and the NGO implementing partners created coordination challenges throughout implementation. Investors (and donors in some cases) operate with highly detailed budget controls, requiring line-by-line

explanations of costs, clearer cash-flow forecasting, close monitoring of exchange-rate exposure, and a precise distinction between direct and indirect costs. NGOs, by contrast, use to grant-based budget management across a large portfolio of projects, with strong cash controls but more flexible planning practices, shared cost structures, different accounting cycles, and greater reliance on budget revisions or no-cost extensions when needed.

This mismatch was not primarily a question of weak financial control, but of different financial cultures and management logics. As one stakeholder noted, both sides initially underestimated how much work would be required to clarify “what sits behind the numbers and the words.” In practice, this required continuous alignment between investor expectations and NGO systems — made more demanding by a complex and constantly evolving operating context.

It is worth noting that, despite these challenges, the implementing organisation demonstrated real capacity to adapt: the budget was successfully renegotiated and restructured over the course of implementation to absorb external shocks, reflect shifting priorities, and respond to intermediate impact results — a form of financial agility that is itself a mark of operational maturity. The experience nonetheless highlights a broader lesson for impact finance: results-based and investment-linked instruments require stronger forward-looking financial planning and a shared understanding of budget, cash-flow, and risk management practices from the outset.

Limited timeframe to change behaviours

Increasing the demand for reusable pads within a three-year timeframe was difficult. Demand-side barriers were significant and multifaceted. In urban areas, many girls associated reusable pads with poverty rather than modernity, preferring disposable alternatives. Uptake was further hindered by unexpected social dynamics, including rumours among factory workers linking voucher designs to negative symbolism, which reduced acceptance. At the same time, programme adjustments—particularly the increased focus on primary schools—meant that a larger share of beneficiaries had not yet reached menarche, limiting relevance for product distribution.

Affordability also remained a major barrier. The initial 50% subsidy model proved insufficient to drive adoption at scale, requiring subsequent adjustments to subsidy levels and distribution strategies. Market-building initiatives require longer time horizons to achieve sustainability.

Building and sustaining infrastructure in a constrained environment

The construction and renovation projects faced significant technical challenges. Construction delays significantly affected timelines and created knock-on effects across other programme components. These delays were driven by a combination of factors: procurement processes for contractors took longer than anticipated, the supply of raw materials was disrupted by road closures linked to the civil conflict, and the cost of construction materials rose sharply in the context of the Ukraine-Russia war and

broader inflationary pressures.. In several schools, limited or unreliable water supply



A student presenting the reusable sanitary pads undermined the usability of newly constructed facilities, while high water costs posed an additional barrier to sustained operation.

More critically, the maintenance of WASH facilities in schools — in the absence of dedicated procedures and public funding — proved difficult to sustain, leading to rapid deterioration of infrastructure in some cases. Issues such as theft of equipment, lack of cleaning protocols, and unclear accountability for upkeep reduced long-term functionality. In addition, competing pressures within schools — particularly increasing enrolment — meant that some dedicated MHH spaces were later repurposed for other uses.

These issues were identified through the programme's continuous monitoring mechanisms and addressed through targeted remediation efforts, including the introduction of school-level maintenance protocols, advocacy with local authorities, and engagement with school management committees. This experience highlights both the challenge of sustaining infrastructure investments in resource-constrained environments, and the value of embedding detection and response mechanisms within the programme from the outset.

10. LESSONS LEARNED

1

Balancing innovation and risk in DIB design

A key lesson emerging from the MHH DIB is the inherent tension between the ambition to finance innovative interventions and the requirements of results-based financing—an issue on which stakeholder views remain divided. On the one hand, DIBs are often justified by the need to transfer innovation risk from a donor to an investor in exchange for risk remuneration, which implies supporting interventions that carry genuine risks and uncertainty. From this perspective, reflected in particular by AFD, the DIB instrument is most relevant when used to finance innovative social interventions with a proof of their impact, using the DIB as a pilot project paving the way for scaled-up sustainable public programs that are funded directly by governments or through traditional financing from international development financial institutions

On the other hand, investors and implementing partners tend to emphasise that the effectiveness of results-based financing depends on the ability to define credible baselines, set realistic performance targets, and measure outcomes reliably—conditions that are more easily met when interventions have already been tested. From this perspective, using DIBs for piloting entirely new approaches is an additional challenge than using it to scale and validate proven ones.

In the case of the MHH DIB, this tension was particularly pronounced. In a sector such as menstrual health, which implies a systemic multilayered approach combining three pillars, it proved challenging to establish robust baseline estimates and calibrate appropriate targets, in a context where baseline data is limited, evidence remains relatively scarce, and there is little track record of local actors implementing integrated interventions across awareness, product access, and infrastructure.

Moreover, the programme combined multiple layers of innovation simultaneously, including new products (such as reusable pads), new distribution channels (e.g. VSLAs and factory-based delivery), a deliberate effort to stimulate a nascent market through subsidisation rather than free distribution, a complex evaluation methodology, and a novel financing structure. While each of these elements brought value, their combination significantly increased both implementation and impact measurement risks.

In this MHH DIB, the social investor took an innovation risk — with the entirety of its investment at stake if outcome targets were not met. DIB projects should find the right balance between risks and impacts. The DIB mechanism gives space for DIB stakeholders to discuss a fair allocation of risks during the structuring phase and to be rigorous and flexible at the same time during the implementation phase.

2

Coordination and performance management

Experience from the MHH DIB highlights the importance of clearly defining and adequately resourcing coordination and performance management functions within multi-stakeholder structures. In this case, because there was only one investor and one outcome funder, it was decided to give elements of this role to the implementing partner, CARE, which contributed significantly to overall coordination and programme delivery despite an already demanding operational context. In parallel, AFD was in charge of coordinating the work with the independent evaluator.

In retrospect, there were real benefits to having the DIB manager role held by the implementing organisation itself. CARE France's dual position — as both implementer and DIB manager — facilitated coordination between operational actors in Ethiopia and the broader stakeholder group, and enabled smoother decision-making thanks to a dedicated person who combined programmatic knowledge with a strong understanding of investor expectations. This role anchored the DIB steering committees, ensuring active liaison between CARE France's project management function, operational actors on the ground, and all steering committee members.

KOIS was brought on board after the start of implementation to support CARE France in this role, strengthening it through its positioning as an independent third party with expertise in DIB structuring and implementation. This independence proved particularly valuable: as a neutral actor, KOIS was well-positioned to facilitate discussions between stakeholders with different institutional cultures and interests, helping to navigate tensions and maintain constructive dialogue throughout implementation. The complementarity between KOIS and CARE France — combining operational legitimacy with independent technical expertise — proved effective in maintaining trust across all parties.

More broadly, the experience suggests that beyond organisational arrangements, the key success factor lies in clarity of roles: responsibility for coordination, performance monitoring, and stakeholder alignment must be explicitly defined, adequately resourced, and allocated in a way that supports both delivery and collaboration. Effective ground-level coordination, in particular, emerged as a critical and sometimes underestimated component of the DIB manager's remit.

3

Co-construction by all stakeholders

The MHH DIB highlights important considerations regarding the timing of stakeholder engagement in the structuring process. As previously stated, the investor (BNP Paribas) was selected toward the end of the structuring phase, at a point when the core elements of the DIB—including evaluation methodology and payment mechanisms—had already been defined. This approach reflected a deliberate strategy to present a well-defined investment product to a range of potential investors, enabling competition on financing

terms and ensuring value for money for AFD and CARE. It also aligned with the objective of engaging institutional or commercial investors who are not typically positioned to be deeply involved in early-stage design.

However, this sequencing limited opportunities for co-design of the payment mechanisms. This created some misalignment and subsequent discussions around the calibration of risk, targets, evaluation methodology and performance incentives.

A similar dynamic applied to the independent evaluator, contracted directly by AFD as the entity financing the evaluation. Crucially, the evaluator responsible for data collection and certification was not the same as the one that had developed the initial evaluation framework — meaning it inherited indicators and protocols it had no hand in designing, and without always having clear guidance on how to operationalise them on the ground. This created challenges in ownership and alignment, and at times complicated the process of responding to clarification requests from different stakeholders. In hindsight, associating the certifying evaluator more closely with the design of the evaluation framework from the outset would have strengthened both methodological coherence and working relationships during implementation.

Together, these experiences point to a broader, still open question in DIB design: when and how to involve key stakeholders in the structuring process to balance co-construction, independence, and procurement constraints. Different models exist, and the optimal sequencing—and governance setup—remains context-dependent.

4

Build in flexibility for indicator adaptation

While DIBs are designed to encourage flexible and adaptive delivery, this flexibility needs to be more deliberately embedded in contractual and evaluation frameworks from the outset. In practice, the MHH DIB—like many similar programmes, particularly during the COVID-19 period—faced evolving conditions that required adjustments, including shifts in context (e.g. conflict, inflation), emerging insights on the theory of change, and methodological challenges such as control group contamination.

Considerable care was taken not to modify the evaluation protocol or the outcome targets during implementation. When contextual realities required adaptation, adjustments were made to the intervention itself — its scope, delivery modalities, and operational footprint — while the ambition for impact and the measurement framework remained intact. Some indicator adjustments were made following the baseline results, but always within the bounds of the original impact ambition and in full respect of the evaluation methodology, which was followed consistently from start to finish.

This experience nonetheless highlights the need for pre-agreed principles and processes for adaptation, allowing the intervention design to be adjusted in a structured and transparent manner in response to material changes in context or evidence — without compromising the credibility or continuity of the results-based mechanism.

Embedding such flexibility—through mechanisms such as predefined adjustment triggers, review windows (e.g. post-baseline or midline), and clear governance for decision-making—may help reconcile the tension between rigour and adaptability, ensuring that DIBs remain both credible and responsive in dynamic implementation environments. While AFD has not yet engaged in a new DIB, it is increasingly using result-based financing mechanisms, while mainstreaming more robust day-to-day impact and results monitoring frameworks and systems in line with investors' and supervisors' growing expectations.

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“The DIB experience has genuinely transformed the way we design and implement projects — and opened up new financing opportunities we would not otherwise have accessed. The evaluation framework, in particular, has raised the profile of this initiative, both within CARE and externally. The project in Ethiopia has demonstrated what is possible when financing is tied to results: strong local ownership, real momentum on issues like period poverty, and evidence that travels. CARE France would be keen to develop further projects through this mechanism — it is particularly well-suited to the kind of complex, locally embedded work we do.”

CARE France, Alexandre Morel

11. CONCLUSION

The MHH DIB illustrates both the promise and the complexity of applying results-based financing in a sector that is not well known nor well-funded, bearing in mind that DIBs should not be benchmarked against standard development projects since they combine a wider set of objectives.

The experience was marked by significant challenges: a reduced programme scale that amplified transaction costs, a complex evaluation methodology and a time-intensive structuring process and the difficulty of aligning diverse stakeholders with different mandates and working cultures. The programme also combined multiple layers of innovation in a context with limited baseline data, making it harder to calibrate targets and measure performance with precision through the selected Difference in Difference method. Such transaction costs should therefore be anticipated through a preparatory process allowing all stakeholders to adjust procedures and working cultures.

While the programme delivered meaningful results for end beneficiaries, the DIB mechanism entailed an additional goal of creating robust knowledge for the MHH community. This objective combined to the result-based structure introduced a higher degree of complexity than standard development programs—through contractual structures, an ambitious evaluation methodology, procurement processes, and multi-stakeholder coordination—but they also created value beyond funding. The results-based financing structure strengthened accountability, supported real-time programme adaptation, and embedded a level of evaluation rigour that remains rare in the MHH sector. The governance model enabled sustained collaboration across public, private, and non-profit actors and lessons were obtained for the MHH community and for organisations interested in engaging into new DIB programs.

More generally, DIBs can serve not only as financing tools, but as mechanisms for learning, alignment, and performance improvement. The experience also highlights the richness and added value of public-private partnerships in driving innovation toward impact: by combining the strengths, perspectives, and resources of governments, private investors, NGOs, and technical actors, the DIB creates a collaborative ecosystem capable of testing new approaches and sustaining collective commitment around shared outcomes. By their nature, DIBs require and enable a long-term perspective. They create space for innovation through iterative adaptation. The continued interest of all the MHH DIB stakeholders in engaging in future DIBs underscores the relevance of the instrument and its potential to contribute to more effective and evidence-driven development interventions.



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CASE STUDY

MENSTRUAL HEALTH AND HYGIENE DEVELOPMENT IMPACT BOND

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