Cameroon Cataract Bond:

A case study produced as part of the Cameroon Cataract Bond Evaluation

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"The Cameroon Cataract Bond utilized a Development Impact Bond (DIB) structure as a financing tool to draw additional and more inclusive social capital to achieve the elimination of avoidable blindness, particularly in the underserved regions of Central Francophone Africa.

Several key features of the DIB structure made this type of financing model well suited for eyecare interventions. The DIB's diverse stakeholder coalition facilitated an effective sharing of risk, allowing new sources of private financing to flow into this geography and sector. Additionally, the Cataract Bond improved transparency and accountability, while also improving the design of impact measurement by incorporating new targets in the eye care sector such as operational and financial sustainability.

Most importantly, the DIB's rigorous focus on measuring results and building a strong evidence base of best practices will have a powerful demonstration effect. By proving that this model works in this context, it will allow for scale up and replication of this model in new, underserved regions. The evidence base and learnings resulting from the Cataract Bond will facilitate substantial efficiency gains when replicating the model, including greatly reduced setup and transaction costs. In addition, as the Cataract Bond continues to build local capacity in healthcare expertise and management practices, the Magrabi ICO Cameroon Eye Institute ('MICEI') will serve as an example of a regional center of excellence, and a hub for knowledge-sharing for future hospitals seeking to replicate its model." Cameroon Cataract Bond Steering Committee

Summary

Cameroon Cataract Bond case study report

TIME PERIOD:
March 2018 – March 2023

THEMATIC AREA:
Sight restoring cataract surgery

COUNTRIES:
Cameroon

TARGET POPULATION:
Low-income patients and middle-income patients with cataracts in urban and rural areas in Cameroon

OUTCOME METRIC:
Number of cataract surgeries, quality of the surgeries, financial sustainability and equity target

LOAN VALUE:
$2 million

SERVICE PROVIDER:
Magrabi ICO Cameroon Eye Institute (MICEI)

OUTCOME FUNDERS:
The Fred Hollows Foundation
Conrad N. Hilton Foundation
Sightsavers

INVESTORS:
Overseas Private Investment Corporation (OPIC)
Netri Foundation

BOND MANAGER:
Volta Capital

INDEPENDENT VERIFICATION:
AEDES

This case study report covers the Cameroon Cataract Bond, a pay-for-performance loan (also known as a development impact bond (DIB) designed to provide funding to prevent blindness through the provision of cataract surgeries. The bond aims to provide eye surgeries at a low cost for middle income patients and no cost for low income patients, while enabling the hospital to reach self-sufficiency in five years. The bond also aims to contribute to helping the hospital become a regional training institute for the Central African Economic and Monetary Community (CEMAC) region after the bond.

The DIB is led by the Cataract Bond Design Coalition, which is formed of The Fred Hollows Foundation, the Conrad N. Hilton Foundation, Sightsavers, the African Eye Foundation and Volta Capital. The outcome funders were interested in being involved as early adopters of DIBs and wanted to pave a new market in innovative financing. The Cameroon Cataract Bond launched in March 2018 and will conclude in January 2023. $2 million of funding from OPIC and the Netri Foundation to top-up the $10 million already raised has been committed to fund the operations of the Magrabi ICO Cameroon Eye Institute (MICEI), the AEF's flagship project and the first subspecialty eye care hospital and training institute in Central Africa to provide cataract surgery to treat avoidable blindness. The DIB model involves risk sharing between the outcome funders and the service provider in the case of non-performance and a full capital protection for the investors. Cameroon was selected by the Africa Eye Foundation as the country for the intervention because the number of avoidable blindness cases in the country is set to double by 2020 if there is no systemic change in the service delivery strategy of eye care intervention.

The key factors that enabled the successful development of the DIB were the strong relationship between outcome funders and service provider and their shared commitment and understanding of the problem and the clarity of the outcome measurement and its linkage to the objective of the intervention. However, the DIB faced several challenges during its set up phase. The difficulty in finding investors and the complexity of the contracting made the set up phase longer and more costly than anticipated. In addition to this, the bond coalition struggled to keep all stakeholders involved throughout the process and faced difficulties in ensuring the buy-in of certain stakeholders due to the complexity of the model.

We have identified some key advantages of using a DIB. First, the risk sharing between outcome funders and service provider has successfully brought impact investing into the eye care sector in Sub-Saharan Africa. Secondly, the DIB has allowed the stakeholders involved to collaborate in a new capacity by creating common

goals and designing targets together. Thirdly, the DIB has improved the accountability and design of impact measurement and incorporated new targets in the eye care sector such as sustainability and accountability. Fourthly, the design of outcome metrics has brought in innovation in the design of the intervention by incorporating an outreach programme to achieve the equity target.

The case study report focuses on the DIB model and early successes and lessons learned during the design and set up phase of the DIB. The following sections cover the DIB's model and the intervention funded, the history of development, the enablers and challenges to setting up the DIB, the lessons learned and advantages and disadvantages to using the DIB before concluding.

The case study is based on findings from consultations undertaken between October-November 2018 with the main stakeholders involved in the design and set up of the DIB and draws from the findings of the CGD report 'Envisioning Pay-for-Success: Learning from an Eye Health DIB in Cameroon'. This included the service provider, outcome funders, investors, bond manager and other advisors. A full list of consultations is set out at the end.

Intervention

The Cameroon Cataract Bond funds cataract-related equipment, consumables, and activities within the intervention programme at the Magrabi ICO Cameroon Eye Institute (MICEI).

MICEI was created by the Africa Eye Foundation as a non-for profit organisation. The Africa Eye Foundation was set up by the Magrabi Foundation (a non-profit foundation organised in Egypt), the International Council of Ophthalmology (ICO), and the That Every Life May Count Foundation (a non-profit foundation organised in Switzerland). The aim was three-fold: to advocate for and promote better eyesight, to construct and operate a network of integrated self-sustainable eye hospitals across Sub-Saharan Africa and to train and equip African eye care experts. MICEI is their flagship project and the first subspecialty eye care hospital and training institute in Central Africa.

The pay-for-performance loan contributes to the funding of the following activities:

- Comprehensive, high-quality and affordable eye care procedures; including outreach and awareness building, diagnosis, transport to hospital and follow-up care for surgery patients,
- Certified training (through the University of Yaoundé) to grow the next generation of African eye care experts.

MICEI is adopting the Aravind model of cross-subsidisation pricing, high service volume, and revenue diversification strategies to provide quality cataract treatment services to the poor at low or no cost in Cameroon. The Aravind model is a social enterprise model of eye care first popularized in India by the Aravind Eye Care System that has had limited implementation in Sub-Saharan Africa due to lack of flexible capital in less-densely populated and lower income areas. The model has been adopted by the Magrabi Foundation, in Egypt, and has proven to be a successful model of financing low-cost cataract surgeries.

In order to operationalise the cross-subsidisation pricing model, MICEI has two target groups: low-income patients and middle-income patients. Between 30% and 40% of the patients are expected to be middle-income patients from urban areas, who will pay between $100 and $545 and contribute to the financial sustainability of the hospital. The funds generated will enable MICEI to provide cataract surgery for free or at a subsidised price for patients from urban and rural areas that are unable to pay for transport to the hospital and for the treatment itself[1]. These patients will be reached through the outreach programme including education campaigns, community visits, radio outtakes and awareness raising.

1 Based on the Aravind Eye Care System in India, patients will be directed to pay as much as they can for surgery, allowing the hospital to recover more costs. An approach successfully used in Aravind and similar hospitals is to keep the per-unit cost of cataract surgery equal to the average monthly income of the bottom 60% of the local population.

DIB Model

> **The Cameroon Cataract Bond is a pay-for-performance loan designed to provide funding to prevent blindness through the provision of cataract surgeries with the ultimate goal of making the hospital self-sufficient after five years. It was launched in March 2018 and will end in 2023.**

The Africa Eye Foundation secured funding from Dr. Akef El-Maghraby (anchor donor and Chairman of the AEF) as well as leading, global health and disability NGOs, for the completion of the hospital (MICEI), which began in 2012. The hospital required an additional $2 million of funding to operationalise the hospital after construction was completed in 2016, which was financed through the DIB. The DIB is led by the Cataract Bond Design Coalition, which is formed of The Fred Hollows Foundation, the Conrad N. Hilton Foundation, Sightsavers, the African Eye Foundation and Volta Capital. The coalition is a partnership comprised of leading non-profit eye health funders, private sector advisors and the service provider.

The Cameroon Cataract Bond provides $2 million in financial support for MICEI's operational costs, including the funding of cataract-related equipment, consumables, and activities. The Conrad N. Hilton Foundation serves as the bond's primary outcome funder, and covers approximately 80% of what is owed to the investors if the intervention succeeds. The Fred Hollows Foundation and Sightsavers—organisations focused on preventing and treating avoidable blindness—cover roughly 10% each.

There are four outcome metrics that payments are linked to:

Performance Targets

NUMBER OF CATARACT SURGERIES: 18,000 over 5 years (7,000 by year 3)

QUALITY OUTCOME: At least 50% of cataract surgeries achieve a 'good' outcome according to WHO guidelines for visual acuity of cataracts patients post-surgery[2]

FINANCIAL SUSTAINABILITY: positive EBITDA (earnings before interest, tax, depreciation and amortisation) at the end of 5 years

Impact Target

EQUITY TARGET: at least 40% of surgeries provided to individuals belonging to the bottom two wealth quintiles of the population in Cameroon by the end of year 5.

The Overseas Private Investment Corporation (OPIC) and the Netri Foundation provided 87.5% and 12.5% respectively of the $2 million upfront capital in January 2018. The loan involves 100% capital protection, though the interest rate payable will depend on the performance against the outcome metrics.

Outcome payments will be made in year 3 and year 5 and the risk of non-performance is split between the outcome funders and the service provider, who is liable to repay in the case of non-performance according to the terms below:

- In year 3, 60% of the principal is repayable. If performance targets are met, outcome funders repay the principal at an 8% interest rate to investors. If performance targets are not met, 76.5% of the principal is repaid by outcome funders, and 4% interest to OPIC only, and the service provider repays the remaining 23.5%, interest-free.

- In year 5, the remaining 40% of the principal is repayable. If performance targets are met, outcome funders repay the principal at 8% interest rate accrued to investors and pay a bonus payment to the service provider of $120k if the equity target is met. If the performance targets are not met, outcome funders repay 55% of the outstanding principal to investors, and 4% interest to OPIC only and the service provider repays 45% of the outstanding principal, interest-free.

2 This is a target recommended by the WHO. Vision tends to improve dramatically in the weeks following surgery. If 50% of surgeries achieve good vision one day after surgery, then it is estimated that in the long term 80% of patients will have a good visual outcome, hence what appears to be a relatively low target for Day 1.

Figure 1 below sets out the structure of the Cameroon Cataract Bond.

Figure 1: Cameroon Cataract Bond Structure

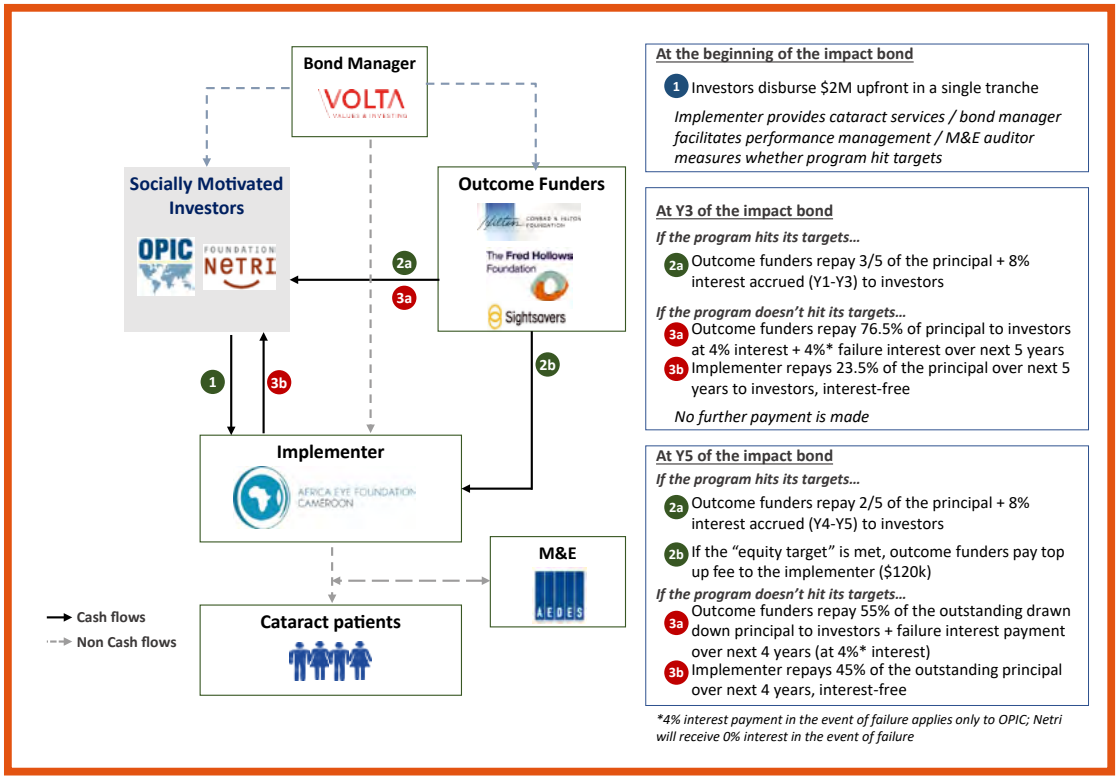

Table 1 below sets out the roles played by the stakeholders within the Cameroon Cataract DIB:

Table 1: Cameroon Cataract Bond stakeholders

DESIGNER	Coalition of outcome funders, bond manager (Volta Capital) and service provider
SERVICE PROVIDER	The Magrabi ICO Cameroon Eye Institute (MICEI) hospital, which has been established by the Africa Eye Foundation
SERVICE USERS	Users of MICEI eye care hospital in Cameroon
GOVERNMENTS	Government in Cameroon
OUTCOME FUNDERS	The Fred Hollows Foundation, Conrad N. Hilton Foundation and Sightsavers
INVESTORS	OPIC and Netri Foundation
OUTCOME VERIFIER	AEDES

Background and identification of outcome funders

The Fred Hollows Foundation started brainstorming ways to crowd in additional investments to reduce preventable blindness given their portfolio focus on avoidable blindness in 2013 as a result of a report commissioned from PwC which found that there was insufficient financing going into eye care to eliminate avoidable blindness in high and low-income countries. The Foundation also had a strong interest in being an early adopter of DIBs and creating public goods that could be shared with other parties interested in applying the DIB model and decided to develop a DIB to finance cataract surgeries in large-scale outreach eye camps in 2013. Selecting the specific eye care intervention that would best suit the DIB financing model took The Fred Hollows Foundation about 8 to 12 months. The Fred Hollows Foundation presented a proposal for outcome funding in South East Asia to the Australian Department of Foreign Affairs and Trade (DFAT) in 2014, but DFAT did not pursue the proposal as the agency was pivoting away from service delivery toward a health systems strengthening approach.

In January 2015, The Fred Hollows Foundation approached the Conrad N. Hilton Foundation to become an outcome funder. The Fred Hollows Foundation decided to shift the intervention to Cameroon because the Conrad N. Hilton Foundation has a portfolio focused on avoidable blindness in Sub-Saharan Africa and a previous relationship with the Africa Eye Foundation.

The Africa Eye Foundation was motivated to be involved with a DIB because of the international recognition that came from working together with the outcome funders and the potential to receive upfront financing with more favourable terms than a commercial loan, while sharing the risk of its operations with the outcome funders.

The Fred Hollows Foundation was appointed as lead outcome funder. The Fred Hollows Foundation engaged D. Capital (now Volta Capital), as the deal's technical advisor in April 2015. Volta Capital had previously acted as an intermediary for the Roll Back Malaria bond piloted in Mozambique. During the development process, Sightsavers joined the bond's design team as an outcome funder. Sightsavers also provided additional specialised knowledge of the eye care sector in Cameroon and substantial experience with monitoring and evaluation. All outcome funders shared a common objective of preventing avoidable blindness and supporting the expansion of innovative financing in the eye care sector.

Initial development costs incurred between May-Oct 2015 were split between the Fred Hollows Foundation and Sightsavers. The Conrad N. Hilton Foundation covered some of the "pre-launch" costs, which were taken out of the first payment made by the grant, which was approved in November 2015. At this point, the Conrad N. Hilton Foundation committed funds to the DIB and joined as the final outcome funder.

Design of the intervention

The Fred Hollows Foundation and the Conrad N. Hilton Foundation agreed that the focus of the intervention should be the MICEI eye care hospital in Cameroon. The targets were put together in consultation with the MICEI management team and verified by experts such as the Aravind Foundation and the Africa Eye Foundation. The setting of these targets was based on the country demand for eye surgeries, benchmarks from other eye hospitals, the service provider's track record and WHO standards. Data from the Africa Eye Foundation was used to build the financial modelling behind the performance indicators. The quality indicator specifically aligns to the World Health Organisation's benchmark for a good cataract surgery outcome.

Stakeholders considered the setting of the targets to be rigorously researched and well-informed by evidence, which was facilitated by the extensive knowledge of the outcome funder and the implementers in the eye care sector. However, some outcome funders and investors considered that the quantity and quality targets were less ambitious than the sustainability and equity targets, especially given the size of the eye health challenge in Cameroon.

In addition to this, including equity as an incentive was considered by all stakeholders to be ambitious and innovative, despite it not being attached to the payments beyond a bonus in year 5. The reason for this was due the challenge in measuring whether the hospital was reaching the poorest both in urban areas and rural areas. MICEI uses EquityTool[3] to compare the wealth of its patients to the wealth of a national sample of population. The equity tool measures against both the urban wealth distribution and the national wealth distribution. For outreach activities, the national measure is more accurate as it encompasses rural populations as well, while in Yaoundé and other urban areas the urban measure is more accurate. Initially many patients were from the

3 http://www.equitytool.org

urban areas, so the consortium considered whether the right benchmark for comparison was actually the urban benchmark. However, now many patients are also from rural areas, so they are performing well against the national benchmark too.

Identification of investors and negotiations

The identification of investors began in 2016. In January, a meeting was held with prospective investors, who were provided with background to the bond, the intervention and the proposed terms. Although a number of leads were identified, none committed to being the main investor. There were two main reasons. Firstly, certain prospective investors noted that the intervention did not align with their priorities in terms of country (Cameroon) or sector (eye care). Secondly, other investors were reluctant to join due to the risk attached to the investment, and the fact that there was not yet a significant and credible investor on board.

Some stakeholders highlighted that they may have misread the risk appetite in investing in a hospital that, at the time, was still under construction. The changes in terms from what was originally planned raised questions for some outcome funders such as the Conrad N. Hilton Foundation given the move from a fractional principle guarantee to 100% coverage of all principle losses.

In March 2017, the Overseas Private Investment Corporation (OPIC)— the United States development finance institution providing direct loans, guarantees, and risk mitigation products to help American businesses invest in emerging markets— agreed to being the main investor and to providing a loan of $1.75 million to the bond. OPIC's interest in and ability to finance the cataract bond with a loan was facilitated by the Conrad N. Hilton Foundation's presence in the outcome funder coalition, given that OPIC must support the interests of an American organisation. The Netri Foundation, who had already shown interest in 2016 but were waiting for another investor to join the DIB, committed the remaining $250,000.

However, OPIC's mission only enables the organisation to provide debt financing. This resulted in a change in the final terms of the DIB with 100% capital protection for investors, split between outcome funders and the service provider. The fact that the service provider had 'skin in the game' (i.e. they took on some of the risk of project failure) gave confidence to the investors and showed Africa Eye Foundation's commitment to reaching their targets.

The most substantive change to the terms was the move from a relatively small portion of the principle being covered to 100% coverage. The principle protection was increased to account for the commercial and political risks of the investment. The final terms involved a lift in the interest rate to investors from 5% to 8% if targets were met, and a 4% interest rate for OPIC if targets were not met. The Netri Foundation refused the term of a 4% interest rate if targets are not met. These changes were a result of an iterative negotiating process, first through negotiations with Deutsche Bank and other prospective investors and, then, through negotiations with OPIC. The resulting terms of the DIB were agreed on with the service provider with reluctance, particularly after realising the extent of the due diligence costs, but accepted given that the terms of the loan were better than those provided by a commercial loan and because they were confident that they could achieve the targets that had been set.

There were a number of enablers, which facilitated the setting up of the DIB. We have structured these around the LOUD framework[4], which identified the critical success factors to launching a SIB in the UK (collective leadership; clear outcomes; shared understanding; and data). It is interesting to note that these same enablers in the UK existed for the Cataract Bond.

4 https://piru.lshtm.ac.uk/assets/files/loud_sib_model.pdf

Enablers

1 Collective Leadership:

- **Strategic (between members of the leadership team);**

Stakeholders generally agreed that the Cataract Bond Design Coalition built strong relationships with all actors, which facilitated the setup of the impact bond. Furthermore, the alignment in the objectives that outcome funders have and their shared mission of preventing avoidable blindness ensured a shared sense of priorities during the set-up phase.

- **Organisational (between these leaders and their internal stakeholders)**

There was a strong commitment amongst outcome funders to develop a DIB and the fact that the DIB was launched and implemented despite the complexity and difficulty in finding suitable investors highlighted this commitment. In addition to this, the staff time devoted to the set-up phase and the pro bono work that some of the advisors provided strengthened the team as it ensured continued resources throughout the set-up phase.

2 Clear outcomes – measurable outcomes and linked to overall objective of the intervention.

Selecting the specific eye care intervention that would best suit the DIB financing model took The Fred Hollows Foundation about 8 to 12 months. Stakeholders consider that focusing on the delivery of cataract surgery services has a number of advantages from the results-based financing perspective given that it is a well-known intervention that is cost-effective and with clearly measurable outputs and outcomes, compared to other health interventions. For example, the link between outcomes and financing for interventions related to human resources development and health system strengthening were deemed to be too imprecise and difficult to attribute to the DIB.

3 Shared understanding of the policy 'problem' and sufficient evidence for the intervention so that it is credible or knowledge-based.

The shared understanding amongst outcome funders of the importance of the intervention and how it contributes to addressing the health challenge in Cameroon is a key enabler of the launch of the Cameroon Cataract Bond. Given that outcome funders were engaged in the eye care sector, they shared their ambition in preventing avoidable blindness. The alignment between outcome funders and service provider in terms of their ambition also contributed to the setting of ambitious targets, based on extensive evidence and knowledge of the intervention. Advisors from the Africa Eye Foundation and Aravind provided feedback on the targets. While stakeholders argued that the quantity and quality targets could have been more ambitious, there was strong consensus on the inclusion of an equity target added the required level of ambition and understanding of the challenge. The longer term needs in Cameroon for cataract surgeries are reflected in the inclusion of a sustainability target.

4 Data to build up a business case, including data on the eligible cohort and outcomes likely to be achieved.

In terms of the measurement of outcomes, the setting of the targets was based on the country demand for eye surgeries, benchmarks from other eye hospitals, the service provider's track record and WHO standards. The cataract surgical volume targets set for MICEI were based on the unmet demand for cataract surgeries in the region, benchmarks from other existing eye hospitals, as well as Magrabi's track record in other countries. Data from the Africa Eye Foundation was used to build the financial modelling behind the performance indicators.

Nevertheless, some stakeholders highlighted that the lack of data to benchmark the risk appetite for similar interventions in similar country contexts made the pricing of the risk difficult, as discussed further in the challenges below.

5 **Service provider track record and reputation**:

Magrabi's track record in running for-profit hospitals in other countries and their experience in applying the Aravind model gave investors' confidence. In addition to this, investors highlighted that DIBs work particularly well for service providers that already have an M&E system in place, and are flexible enough to change their strategy based on the feedback they receive. One of the investors noted that having an independent evaluator and an M&E system already in place provided them with more confidence in the project, and incentivised them to participate. The M&E system is expected to support more rigorous reporting, which will enable stakeholders to track the progress made and impact of the investment.

Challenges

- **The main challenge identified by outcome funders and the bond manager was the difficulty in finding investors who were willing to invest**.
  Different stakeholders point to different reasons why this might have been the case. The misreading of the risk appetite was considered one of the key reasons as the initial terms proposed by the bond coalition (5% interest rate and no capital guarantee) were often challenged and rejected by prospective investors. Other stakeholders commented that other reasons why prospective investors rejected the investment were the early presentation of the bond, which meant the strengths of the bond were not sufficiently capitalised on; the perceived risk of investing in Cameroon; the newness of the hospital; and the lack of alignment with investor priorities.

- **As a result, the process of setting up the DIB took two years, which was longer and more costly than expected. This resulted in stakeholders involved in the set up incurring higher costs than anticipated in terms of staff time, consultant fees and legal advice**.
  Some stakeholders considered that a significant proportion of these costs were 'first DIB costs' which could be considerably reduced in future DIBs. The development of the bond also required a steady stream of financial support that lead the bond coalition to request multiple grants such as a grant proposal of USD 200,000 to Standard Chartered Bank's competitive "Seeing is Believing" Innovation Fund, which did not go through and forced partners to assume more costs than anticipated.

- **In addition to this, the set up phase of the DIB also took longer due to several challenges in contracting. In order to set up the bond, a total of 13 contracts had to be executed**.
  Given that some of the stakeholders involved such as OPIC and the Conrad N. Hilton Foundation were restricted in the type of contracting tools they could or wanted to engage in to get involved in a DIB, these had to be created from scratch. The bond manager and outcome funders had to work together to create a blueprint for OPIC to invest in Cameroon and allow the investment to be made as a loan. The Conrad N. Hilton Foundation, as a grant-making organisation, did not have a mechanism to make contingent grant payments at some time in the future, as per the pay-for-success nature of a DIB. As a result, the Conrad N. Hilton Foundation's initial outcome funding agreement was structured like a conventional grant, with a set schedule of payments and an accredited grant recipient (The Fred Hollows Foundation).

- **An additional challenge mentioned by stakeholders was the need to ensure the involvement of all stakeholders throughout the process to ensure a good flow of information**.
  For instance, it was not originally anticipated that representatives from the Conrad N. Hilton Foundation needed to join the regularly scheduled calls about the DIB, which resulted in them not being up-to-date with the changes to the terms of the deal during negotiations with prospective investors.

- **Finally, a challenge that the bond coalition had to face throughout the process was the limited buy-in of certain stakeholders within their organisations due to the complexity of the model, and concerns about the alignment of risk and return across the different actors**.
  For example, one organisation's board members asked why the money for the hospital could not be obtained via a large grant instead of via the DIB. The board members felt the additional costs of the bond seemed high, while the obvious benefit to parties involved seemed unbalanced, given that the investors had full capital protection.

Lessons Learned

Given the challenges faced in setting up and launching the Cameroon Cataract Bond, stakeholders shared a number of lessons learnt:

1. **Alignment in priorities and a shared understanding of how the problem can be addressed supports the rigorous and ambitious design of outcome metrics**. There was agreement on the importance of quantity, quality, sustainability and equity, which resulted in the design of rigorous and comprehensive metrics.

2. **Having a strong service provider with a proven track record gives confidence to investors that targets are reachable**. A strong management system also supports rigorous and timely monitoring and reporting on outcome metrics.

3. **Stakeholders involved in developing a DIB should be aware of the time and resources needed** during the design phase and the contracting phase, especially if it is their first time working on a DIB.

4. **It is important to try to engage outcome funders and investors simultaneously** to avoid delays in launching the DIB and avoiding several iterations during the negotiation of the terms. In addition to this, timing the launch of the DIB to the opening of the hospital would have enabled the Coalition to provide prospective investors with more specific information.

5. **Lack of historical data on similar interventions in similar contexts poses a real challenge to assessing the level of risk and makes it difficult to price the intervention**. This complicates the negotiation process between outcome funders, investors and service providers.

6. **Having a clear plan for coordination and communication** for all stakeholders engaged from an early stage is essential to ensure that all stakeholders feed into the design and the negotiations equally. It is also important to have a defined leader with experience in developing DIBs as a bond manager.

Advantages and disadvantages to using the DIB

The following were cited by stakeholders as advantages to using the DIB during the set up phase.

- **The DIB brought impact investing and results based finance into a space that did not exist before by sharing the risk of the investment between outcome funders, service provider and investors**.
  Given that none of the outcome funders could assume the risk of investing in the eye care sector in Sub-Saharan Africa on their own, the risk sharing between them and the service provider opened up a new space for results based financing impact investing, despite the limited risk transfer to the investor.

- **The DIB brought together different funders in the eye care sector working towards a common goal, collaborating in a new capacity**.
  Although some of the stakeholders had worked together before, it was the first DIB all outcome funders got involved in and stakeholders considered it was beneficial for them to work together in a different capacity.

- **Stakeholders agree that the use of a DIB led to more a careful and rigorous design of intervention and targets**.
  Involved stakeholders consider the setting of the targets to be rigorously researched and well-informed by evidence given the extensive knowledge of the outcome funders and the implementers in the eye care sector, as well as the expertise from Aravind and WHO standards. The Fred Hollows Foundation remarked that it can be difficult to insist on strong performance management frameworks; attaching payments to outcomes ensured this was a key focus in the project. According to Sightsavers, the DIB also helped the hospital gain ownership of their targets and improve management and efficiency, promoting more efficient management and use of data. Aravind contributed to this by ensuring the hospital staff appreciated and understood the targets, and set the budget accordingly. In health care this rigour is important, as providers need to know the number of patients they are able to reach. Only in the case of the Cameroon hospital, targets are attached to payment.

- **Stakeholders also argued that the DIB model enabled stakeholders to be ambitious in the setting of sustainability and equity targets that are unusual in the eye care sector**.
  The innovative element of having a target that ensures the financial sustainability of the hospital is seen as key to ensure the impact of the intervention continues after the DIB ends. In addition to this, it is considered innovative to have a clinical quality target, which is being considered as a tracer indicator for surgical quality more generally as part of the SDG indicator set because of its ease of measurement.

- **The inclusion of an equity target that was facilitated by the DIB has brought innovation in the design of the intervention by leading to Magrabi adapting an outreach programme to ensure that they succeed in reaching the poorest**.
  While outreach programmes are common, using tools to measure the income of those they are reaching is innovative. Stakeholders in the Fred Hollows Foundation also expect increased innovation in delivery to reach the sustainability target and equity target, which may be conflicting targets.

- **The DIB provided upfront capital to MICEI, which enabled them to initiate the operations of the hospital**.
  Stakeholders argued that although the intervention could have been financed through other payment by results financing models, it was unlikely that commercial banks would have been willing to finance the operations of a hospital that was under construction through a loan.

In terms of disadvantages of using the DIB, stakeholders cited that it was complex to design and expensive to set up. The key factors that contributed to increasing the cost of the set up phase were the difficulty in finding suitable investors and the complexity of the contracting phase. However, some stakeholders did argue that the complexity and cost of the set up may be lower in future DIBs given that all outcome funders involved were developing a DIB for the first time.

Conclusion

The Cameroon Cataract Bond is the culmination of five years' work, instigated by The Fred Hollows Foundation but supported by others, to bring new finance into the eye care sector and shift the payment challenge away from outcomes funders. By sharing the financial risk between outcomes funders, service providers and an investor, it has achieved this aim. Although it has attracted private foundation finance into the sector but not commercial finance, stakeholders are hopeful that the project, and the investment from a development finance intermediary, will 'prove the concept' and encourage future impact investing with commercial capital.

The DIB mechanism has also led to benefits in the design of the project; the introduction of rigorous performance metrics, including a focus on quality, sustainability and equity, are seen as highly innovative.

In achieving this aim, however, partners have had to make compromises, and for many stakeholders the final design of the project is not how they envisaged at the outset. In particular, some stakeholders were disappointed in the changes in the investment terms - from a 50% capital guarantee to a 100% guarantee, from an increase in interest rate from 5% to 8% and the service provider taking on a reasonable amount of financial risk. These compromises have made some of the stakeholders involved hesitant of the value of the DIB.

However, stakeholders also recognise that the true test of the DIB's success will come from how it affects the performance of this project, and whether it does indeed provide a 'proof of concept' that leads to further finance being brought into the sector. These will be areas that will be explored in future waves of the evaluation.

The next case study will be published following the next research wave, in the third quarter of 2020. The focus of this next wave will be on progress in the project, and how the use of the DIB is affecting delivery.

Stakeholders Consulted

- VOLTA CAPITAL
- THE FRED HOLLOWS FOUNDATION
- CONRAD N. HILTON FOUNDATION
- SIGHTSAVERS
- OPIC
- NETRI FOUNDATION
- AFRICA EYE FOUNDATION
- ARAVIND EYE CARE SYSTEM

About this report

This in-depth review is a series being produced as part of an evaluation of the Cameroon Cataract Bond and the DFID DIBs pilot programme, commissioned by the Fred Hollows Foundation and the Department for International Development and undertaken by Ecorys UK.

Alma Agusti Strid, Research Manager at Ecorys, wrote the report. The report is based on a review of documents provided by stakeholders and consultations with key stakeholders involved in the DIB. Consultation took place during 2018, during the first year of implementation for the Cameroon Cataract Bond. The report will be updated in subsequent years to provide an account of the DIB's progress.

In total, the evaluation will produce in-depth reviews of four DIBs. More information about this evaluation, including other in-depth reviews, can be found at: **https://devtracker.dfid.gov.uk/projects/GB-1-204722/documents**