How the Development Impact Bond Mechanism Affects the Design and Set-up of Interventions:

Findings from the DFID DIBs Pilot Evaluation

A briefing note produced as part of the independent evaluation of the Department for International Development's Development Impact Bond Pilot Programme

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/Summary

This briefing paper focuses on how use of the Development Impact Bond (DIB) mechanism affects the design and set-up phase of interventions. It draws on findings in the Research Wave 1 Evaluation Report as part of the Independent Evaluation of the Department for International Development (DFID) DIBs pilot programme, undertaken by Ecorys. The scope of the evaluation comprises four DIBs.

Given the timing of the DIBs, the evaluation has so far focused on the design and set-up of the DIBs. To provide a framework for understanding how the DIB has affected the design and delivery of development interventions, we have developed 10 'DIB effects' under the categories of

1) transfer of risk;
2) partnerships;
3) financing and funding; and
4) design.

These DIB effects, and the extent to which they were seen across the four DIBs, is summarised in the table overleaf.

Across all four DIBs, the strongest positive DIB effects have been that the use of the DIB mechanism has made it possible to implement Payment by Results (PbR) contracts in contexts where, previously, this would not have been possible because the projects were too risky or too large. This is primarily due to the new partnerships created between governments, donors, delivery partners and (to a degree) the private sector, and the sharing of financial risk between these groups. The DIB has fostered new working relationships between stakeholders and has led to greater levels of collaboration than is normally seen, primarily because the DIB aligns all stakeholders' interests but also because the intensive design stage forces closer partnership working. A large amount of work has been done in all four DIBs to build a stronger performance management infrastructure, including investing in new monitoring systems and working closely with the service providers to embed adaptive management systems.

Many of the DIB effects were quite consistent across the four DIBs, although some were more consistently found (such as enabling innovation and being complex to design) than others (such as providing longer-term funding and influencing the intervention design). Where there is significant difference between these four projects is the financial risk sharing arrangements between the outcome funders, service providers and investors. The risk sharing profile can be distinguished between impact bonds where the financial risk is fully borne by the investors, and where the financial risk is shared between the outcome funder, investor and service provider.

It is important to note that there is some indication that certain effects are more 'novelty effects' than DIB effects per se - that is they appear to exist because these are the first set of DIBs, and will likely diminish over time. This seems to be the case for the increased reputational risk and the costs associated with the set-up and design of the DIBs. It is possible (though not certain) that these will reduce in future DIBs. Furthermore, because of the increased rigour in the outcomes measurement is a consequence of attaching payments to outcomes, increased rigour of M&E systems was also seen in some of the PbR programmes used for comparison, and is therefore more of a 'PbR effect' than a DIB effect. Finally, a significant motivation across all DIBs was to test the efficacy of the financing modality; this core objective may affect the way the DIBs were structured and designed.

The findings from these four DIBs in relation to the DIB effect broadly mirror the findings from the wider literature. This is promising – there is currently limited evidence of the DIB/SIB effect, and so this evaluation provides further validation and gives a stronger understanding around how impact bonds affect the design and set-up of projects.

Table 1 below summaries the presence of the DIB effect indicators in the four DIB projects The RAG rating indicates the extent to which these effects emerged, with Green signalling "Yes", Amber signalling "To some degree", and Red signalling "No".

Table 1: Presence of the DIB effect indicators in the four DIB projects

DIB Effect	ICRC HIB	QEI DIB	VE DIB	Cataract Bond
Transfer of risk				
1. Transfer of financial risk from outcome funder to investor	🟡	🟢	🟢	🟡
2. Reputational risks resulting from the use of the DIB	🟢	🟢	🟢	🔴
Partnerships				
3. More service providers entering the PbR market due to pre-financing and transfer of risk	🟢	🟢	🟢	🔴
4. Greater collaboration and/or coordination between stakeholders as there is an alignment of interests	🟡	🟢	🟢	🟡
Financing and funding				
5. Funding projects which would not have been funded otherwise, or not in the same guise	🟢	🟢	🟢	🔴
6. Additional financing to the development sector	🟢	🔴	🔴	🟡
7. Longer term funding	🟢	🟡	🔴	🔴
Design				
8. Enables innovation	🟢	🟢	🟢	🟢
9. More careful and rigorous design of interventions	🟡	🟡	🟡	🟢
10. Complex to design and expensive to set up	🟢	🟢	🟢	🟢

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This briefing paper is drawn from the findings in the **Research Wave 1 Evaluation Report as part of the Independent Evaluation of DFID's DIBs pilot programme**, undertaken by Ecorys. The DIBs pilot programme runs over a period of almost six years, from June 2017 to March 2023. DFID has allocated GBP 6.3 million of funding for the three projects under the DFID-supported DIBs pilot programme: ICRC: Humanitarian Impact Bond for Physical Rehabilitation; Village Enterprise: Micro-Enterprise Poverty Graduation Impact Bond; and support to British Asian Trust: to design impact bonds for education and other outcomes in South Asia (which includes the Quality Education India DIB). The GBP 6.3 million of funding forms a proportion of the total value of the three DIBs, which are also co-funded by other donors. The DFID DIBs team engaged in the design process, but DFID's funding is primarily allocated to paying for outcomes, performance management and results verification.

Since the evaluation inception phase, a fourth DIB, the Cameroon Cataract Bond, has been added to the evaluation. This is not a DFID-funded pilot, but has been added to the evaluation to increase the number of DIBs under examination and therefore to strengthen the comparative analysis and findings. These DIBs are summarised in **Table 2**.

This paper focuses on how use of the DIB mechanism has affected the set-up and design phase of the four DIBs. It draws on interviews with stakeholders. It should be noted that the four DIBs under the scope of the evaluation vary significantly in terms of the types of interventions, the contexts in which they are operating and the types of stakeholders involved. Finally, the motivations for stakeholders in using the DIB also vary, and it is important to note that not all DIB effects are anticipated for all DIBs.

What is a DIB?

DIBs are one type of payments by results (PbR), or a type of funding whereby payments are made after the achievement of pre-agreed outcomes.
In a standard PbR contract, there are four actors:

- an outcome funder who funds the outcomes;
- the service provider delivering the intervention;
- the target population, benefiting from the services; and
- a validating agency that validates the results on which the payments are based.

DIBs involve two additional agents:

- the investor(s), which provide(s) the working capital to deliver the intervention and may be able to make a return on their investment, calibrated to the level of outcome achieved; and
- the intermediary, which can assist with the development and commercialisation of the DIB, and with the monitoring and support of the delivery of the intervention.

DIBs are typically implemented in developing countries, where the outcome funder is a donor agency or foundation often operating in a different country. Humanitarian Impact Bonds are essentially DIBs operating in humanitarian situations.

Why use a DIB

Using a DIB is expected to affect the design, delivery, performance and effectiveness of development interventions. Using a DIB mechanism is expected to align the priorities of the different actors involved in the DIB, including the donor, the service provider, the investor and the government. It is expected that by harnessing of private finance and private sector know-how, DIBs can support innovation and more effective delivery. The mechanism of the public sector paying only on results has been proposed as a way to reduce risk for outcome funders and to drive a focus on results, and, as a result, an improvement in performance management.

It is important to note that many of these claims are expectations, and that the evidence is still limited.

DIBs examined as part of evaluation

The four DIBs examined as part of the evaluation are summarised in Table 2. Further information is available in the Research Wave 1 Evaluation Report.

Table 2: DIBs examined as part of evaluation

International Committee of the Red Cross (ICRC) Humanitarian Impact Bond (HIB) for Physical Rehabilitation

This DIB funds the building of three new physical rehabilitation centres in Mali, Nigeria and Democratic Republic of Congo (DRC). As a part of the HIB, ICRC is also piloting efficiency improvement measures testing and building a Digital Centre Management System (DCMS).

Up to CHF 26.09 million of outcome payments will be made based on improvements in the Staff Efficiency Ratio (SER), from the beginning to the end of the HIB, calculated by the number of beneficiaries having regained mobility thanks to a mobility device, divided by the number of local rehabilitation professionals. The outcome funders are the Swiss, Belgian, Italian and UK governments and La Caixa Foundation. The cornerstone investor is New Re (a subsidiary of Munich Re, a reinsurance company), alongside six other investors.

Quality Education India (QEI) DIB

This DIB aims to offer a solution at scale to the learning crises in India, by funding a range of high performing service providers to improve learning outcomes for more than 300,000 primary school aged children. There are three service providers involved, delivering different interventions.

Up to a maximum of USD 9.2 million of outcome payments will be made based on improvements in learner outcomes, compared to a comparison group. There are five outcomes funders, including Michael & Susan Dell Foundation (MSDF) as the lead outcome funder. The UBS Optimus Foundation raised the investment from donations.

Village Enterprise Micro-enterprise Poverty Graduation Impact Bond

This DIB aims to raise the income levels of a minimum of 12,660 households through Village Enterprise's microenterprise development program, known as a Graduation program. It aims to equip its beneficiaries with the resources to create sustainable businesses.

Up to USD 4.3 million of outcome payments will be made, mainly tied to increases in household income. The outcome funders are DFID, USAID and an anonymous donor. This capital has been provided by nine investors, including the Delta Fund as lead investor.

Cameroon Cataract Bond

This DIB funds sight-restoring cataract surgeries, with the overall aim of enabling the Magrabi ICO Cameroon Eye Institute (MICEI), the first eye care hospital in Cameroon, to reach self-sufficiency in five years. The loan aims to expand the market reach and provide eye surgeries for up to 18,000 low- and middle-income patients at a low cost.

Up to USD 2.8 million of outcomes payments will be made, including USD 2.68 million in repayment of principal and interest to lenders and USD 0.12 million in incentive payments to the hospital, tied to the achievement of three outcomes (number of cataract surgeries, quality of surgery and financial sustainability of the hospital). The outcome funders are the Conrad N. Hilton Foundation, The Fred Hollows Foundation and Sightsavers. The investors are the Overseas Private Investment Corporation (OPIC) and the Netri Foundation.

/The effects of using the DIB mechanism

One of the key questions for DIB stakeholders is whether DIBs are worth funding. They can be complex and expensive to design and deliver. A key focus is therefore on how using a DIB affects the design, delivery, performance and effectiveness of development interventions, both positively and negatively.

Given the timing of the DIBs, the evaluation has so far focused on the design and set-up of the DIBs. To provide a framework for understanding how the DIB has affected the design and set-up of development interventions, we have developed 10 'DIB effects', based on the anticipated DIB effects set out in previous literature and through consultations with the stakeholders involved in these four DIBs.

This are categorised into four areas:

- **Transfer of risk**: how the DIB mechanism affects the levels and types of risk (financial and reputational) borne by stakeholders;
- **Partnerships**: how the DIB mechanism affects the partnership working between stakeholders, examining how the DIB affected the types of stakeholders involved in delivery, and the working relationships between stakeholders;
- **Financing and Funding**: whether, and the extent to which, the DIB mechanism brings additional financing (upfront capital/cash, generally expected to be repaid) or funding to the project (related to the question of who ultimately pays over the long-term); and
- **Design**: how the DIB affects the design of projects and interventions, in terms of innovation, rigour of project design and costs and time involved in the design and set-up phase.

We interviewed key stakeholders in all four DIBs, including outcome funders, intermediaries, investors, service providers and evaluators, to understand the presence of these DIB effects across the four DIBs.

/Findings

For each category of DIB effect below, we have set out our findings for the effects that are related to the design and set-up phase of a DIB. For each DIB, we have set out a column for whether the DIB effect was anticipated, and whether it emerged. The RAG rating indicates the extent to which these effects emerged, with *Green* signalling *Yes*, Amber signalling *To some degree*, and *Red* signalling *No*.

1. Transfer of risk effects

In a DIB, a range of stakeholders are bound contractually. The DIB mechanism is expected to affect the levels and types of risks borne by different stakeholders.

- Through ensuring that some or all of funding is only payable should results be achieved, the DIB mechanism has reduced **financial risks** for outcome funders and service providers, transferring this to investors. However, levels of risk transfer vary across the four DIBs.
- The DIB mechanism has increased other risks, for example, reputational risk. There were quite strong concerns amongst both outcome funders and service providers around using a new funding mechanism, due to the uncertainties of using a new model, alongside the heightened attention that the mechanism brings to the projects, increasing exposure should the results not materialise. This exposure was seeing as having both upsides as well as downsides, but was nevertheless perceived by stakeholders to increase the reputational risk

DIB Effect	ICRC HIB		Quality Education India DIB		Village Enterprise DIB		Cataract Bond	
	Anticipated	Emerged	Anticipated	Emerged	Anticipated	Emerged	Anticipated	Emerged
Transfer of financial risk from outcome funder to investor	Yes	Some financial risk transferred (40% of investors' capital is at risk; 60% capital guarantee, shared between the outcome funders and service provider).	Yes	100% transfer of financial risk	Yes	100% transfer of financial risk	Yes	Some financial risk transferred (0% of investors' capital at risk; 4% of interest at risk; capital guarantee split between outcome funder (76.5%) and service provider (23.5%)
Reputational risks resulting from the use of the DIB	Yes	Yes	Yes	Yes	Yes	Yes	No	No

2. Partnerships

A DIB involves many stakeholders, and this is expected to be a positive of using the DIB, through the creation of new partnerships between governments, donors, delivery partners and (to a degree) the private sector.

The transfer of financial risk to investors has enabled some, but not all, **service providers** to participate in large-scale PbR projects. Service providers noted that it was unlikely they would have participated in the project if they had been required to provide the upfront capital to deliver the intervention. However, there remain barriers to service providers entering a PbR contract; a number of stakeholders commented that entering into an impact bond requires a degree of capability and capacity that a large number of service providers do not have.

The DIB has fostered new working relationships between stakeholders and has led to greater levels of **collaboration** than is normally seen, primarily because the DIB aligns all stakeholders' interests but also because the intensive design stage necessitates closer partnership working. However, the extent to which the DIB fostered greater collaboration differed between the four DIBs. Collaboration was noted as stronger in cases where there were more multilateral discussions. A downside of increased collaboration was the fact that certain stakeholders noted it made the negotiation process less efficient.

DIB Effect	ICRC HIB		Quality Education India DIB		Village Enterprise DIB		Cataract Bond	
	Anticipated	Emerged	Anticipated	Emerged	Anticipated	Emerged	Anticipated	Emerged
More service providers entering the PbR market due to pre-financing and transfer of risk	Yes	Yes	Yes	Yes	Yes	Yes	No	No, could likely have been involved if no transfer of risk
Greater collaboration and/or coordination between stakeholders as there is an alignment of interests	Yes	Yes – though there were comments that collaboration and transparency could have been improved.	Yes	Yes	Yes	Yes	No	Yes - though there were comments that collaboration and transparency could have been improved.

3. Financing and funding

By bringing in different stakeholders, and different funding and financing channels, there is a hypothesis that DIBs can enable projects to be funded that would not have been funded otherwise, bring in additional financing and/or change the nature of the funding.

- Our evaluation found that the DIB mechanism has made it possible to implement Payment by Results (PbR) contracts in contexts where, previously, this would not have been possible because the projects were too risky or too large. Hence the DIB **enabled projects to be funded which would not have been funded otherwise, or at least not in the same guise**. Although PbR projects have been funded in the majority of countries involved in the four DIBs, a number of outcome funders across all four DIBs said it was unlikely they would have funded the intervention had it been financed through a traditional input-based model because they were deemed to be too risky.
- Whilst all four DIBs raised external finance, in the majority of cases **this was not 'new' finance**, as it was from philanthropic sources. In these DIBs the finance is better perceived of as existing money re-purposed rather than additional finance. The exception to this is the ICRC HIB, which did draw in additional private finance that would not have been used in the development sector otherwise.
- However, for ICRC HIB and QEI DIB, the funding was **longer term funding**. It should be noted that service providers in these two DIBs noted that they did have other longer-term funding agreements, but also a number of annual funding agreements. The availability of longer-term funding enabled ICRC HIB to plan for longer term investment projects, such as an information management and digital systems.

DIB Effect	ICRC HIB		Quality Education India DIB		Village Enterprise DIB		Cataract Bond	
	Anticipated	Emerged	Anticipated	Emerged	Anticipated	Emerged	Anticipated	Emerged
Funding projects which would not have been funded otherwise, or not in the same guise	Yes	Yes	Yes	Yes	Yes	Yes	No	No, likely project could have been funded without DIB
Additional financing to the development sector	Yes	Yes	Yes	No. Raised external finance but most of this philanthropic funding that would have gone into the sector anyway	Yes	No. Raised external finance but most of this philanthropic funding that would have gone into the sector anyway	No	Mixed – finance would have gone into development sector, but not eye health or Cameroon
Longer term funding	Yes	Yes	No	To some extent	No	No	No	No

4. Design

The risk transfer from outcome funder to investor involved in the DIB mechanism is expected to enable the funding of riskier and more innovative interventions. A strong business case is necessary in order to attract external investment; this is expected to ensure interventions are well-researched and carefully designed. The attachment of payments to outcomes is expected to incentivise both outcome funders and service providers to ensure outcomes are clearly defined and robustly measured. However, all of this can also mean DIBs are complex to design and expensive to set up.

- All four DIBs included some level of **innovation**, though this was incremental (adapting an established intervention) rather than radical (a new type of intervention altogether). The reputational risk of involvement in these pilot DIBs has created a level of risk aversion, which we believe has limited the level of innovation in the interventions – all four DIBs are funding service providers with some track record and interventions with some evidence bases, though they have all been adapted for these DIBs.
- There is less evidence that the DIB supported more **careful and rigorous design of the interventions**. However, a large amount of work has been done in all four DIBs in terms of the design of the **M&E**, to build a stronger performance management infrastructure, including investing in new monitoring systems and working closely with the service providers to embed adaptive management systems.
- The majority of stakeholders noted that the DIBs have been **complex to design and expensive to set up**.

DIB Effect	ICRC HIB		Quality Education India DIB		Village Enterprise DIB		Cataract Bond	
	Anticipated	Emerged	Anticipated	Emerged	Anticipated	Emerged	Anticipated	Emerged
Enables innovation	Yes	Yes (incremental innovation.	Yes	Yes (incremental innovation	No	Yes (incremental innovation)	No	Yes (incremental innovation)
More careful and rigorous design of interventions	Yes	Mixed. Yes in terms of rigorous design of M&E, but no impact on design of intervention	Yes	Mixed. Yes in terms of rigorous design of M&E (but similar rigour in PbR), but no impact on design of intervention	Yes	Yes, though mixed opinion on whether this can be attributed to the DIB	Yes	Yes
Complex to design and expensive to set up	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes

DIB effect vs novelty effect

It is likely that some of the DIB effects identified in the four DIBs are, in fact, 'novelty effects' – the effect whereby individuals may perceive and respond differently in a situation that is novel compared with how they would in a normal situation.[1] There are a number of DIB effects that may exist, or be stronger, because these are some of the first DIBs to be launched, and these effects may diminish over time. Based on the current research we believe the following effects are likely to be partly due to a novelty effect:

- **Transfer of risk and types of service providers and interventions funded**: We note that in these DIBs there has been a degree of risk aversion: there was a robust selection of high-performing service providers and in some of the projects the level of risk taken on by the investors has been marginal. This appears to be in part because of the 'novelty' of the DIB, and therefore the reputational risks associated with its potential failure. We would expect the perceived risk of DIBs to diminish if and when they become more mainstream, and this may see more risky projects being funded through DIBs, and higher levels of financial risk transferred to investors.
- **Costs and complexity**: It is likely that the costs associated with DIBs will reduce as people learn how best to design and launch DIBs, and replicate previous DIB designs. How the transaction costs of DIBs could be reduced is explored in our 'Reducing Transaction Costs' paper.

The novelty effect also appears to have influenced some funders' decisions to fund these projects. In some projects, the main driving factor for funding the DIB has been the interest in the potential of the mechanism, rather than necessarily because of the benefits it could bring. There was a broad recognition that funding a DIB primarily because of its novelty factor was not sustainable, and that it is important to focus on the problem first and see the DIB mechanism as one solution to the problem amongst others, rather than deciding upfront that the DIB mechanism should be used.

DIB effect vs PbR effect

There is some evidence to suggest that some of the effects attributed to the DIB are more 'PbR' effects, in that they are effects seen when payments are attached to outcomes, regardless of whether the programme is a PbR or DIB. This is most notable in the QEI DIB, where the 'DIB effect' of improving the design and rigour of the outcomes measurement was also a benefit seen in the Girls Education Challenge programme, which included PbR funded projects.

System changes

As well as the DIB effects outlined above, stakeholders highlighted an additional, unanticipated effect. This was that the DIB mechanism was shifting the mindset of philanthropists, and creating a new set of impact investors. One investment fund in particular described how philanthropists who would not ordinarily use their money for impact investing were attracted by the alignment of financial and social returns associated with the DIB, and were for the first time using their funds for impact investing.

1 Gravetter and Forzano, 2018. Research Methods for the behavioural Sciences. Cengage learning.

/Conclusions

This briefing paper has provided an overview of the DIB effects during the set-up and design phase of the four DIBs examined as part of the DFID DIBs evaluation.

The strongest positive DIB effects have been that they have made it possible to implement PbR contracts in contexts where, previously, this would not have been possible because the projects were too risky or too large. This is primarily due to the new partnerships created between governments, donors, delivery partners and (to a degree) the private sector, in which the financial risk is shared between these groups.

The DIB has fostered new working relationships between stakeholders and has led to greater levels of collaboration than is normally seen, primarily because the DIB aligns all stakeholders' interests but also because the intensive design stage forces closer partnership working. A large amount of work has been done in all four DIBs to build a stronger performance management infrastructure, including investing in new monitoring systems and working closely with the service providers to embed adaptive management systems.

Many of the DIB effects were quite consistent across the four DIBs, although some were more consistently found (such as enabling innovation and being complex to design) than others (such as providing longer-term funding and affecting the intervention design). Where these four projects quite starkly contrast with each other is in the financial risk sharing arrangements between the outcome funders, service providers and investors.

This is the first research wave of the evaluation, with two further waves planned in 2020 and 2022. The evaluation has identified some important findings in relation to the DIB effect for further exploration over the next research waves:

- The fact that we are in the pilot phase of DIBs appears to have affected the projects. Additionally, some of the effects observed seem to be due to the Payment by Results component of the DIB. The next research waves will continue to explore the effect of using the DIB mechanism, and attempt to understand the DIB effect in comparison to the 'novelty' and 'PbR' effects.
- The use of the DIB mechanism can also affect the wider system, including the organisations and broader investment and funding landscape. We will explore how the use of the DIB affected the stakeholders involved and the wider development and impact investing space.
- Stakeholders use DIBs for different reasons, and the four DIBs have been structured with different DIB effects in mind. How different DIB structures influence the materialisation of DIB effects will be further explored over the next two research waves.

Disclaimer:

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