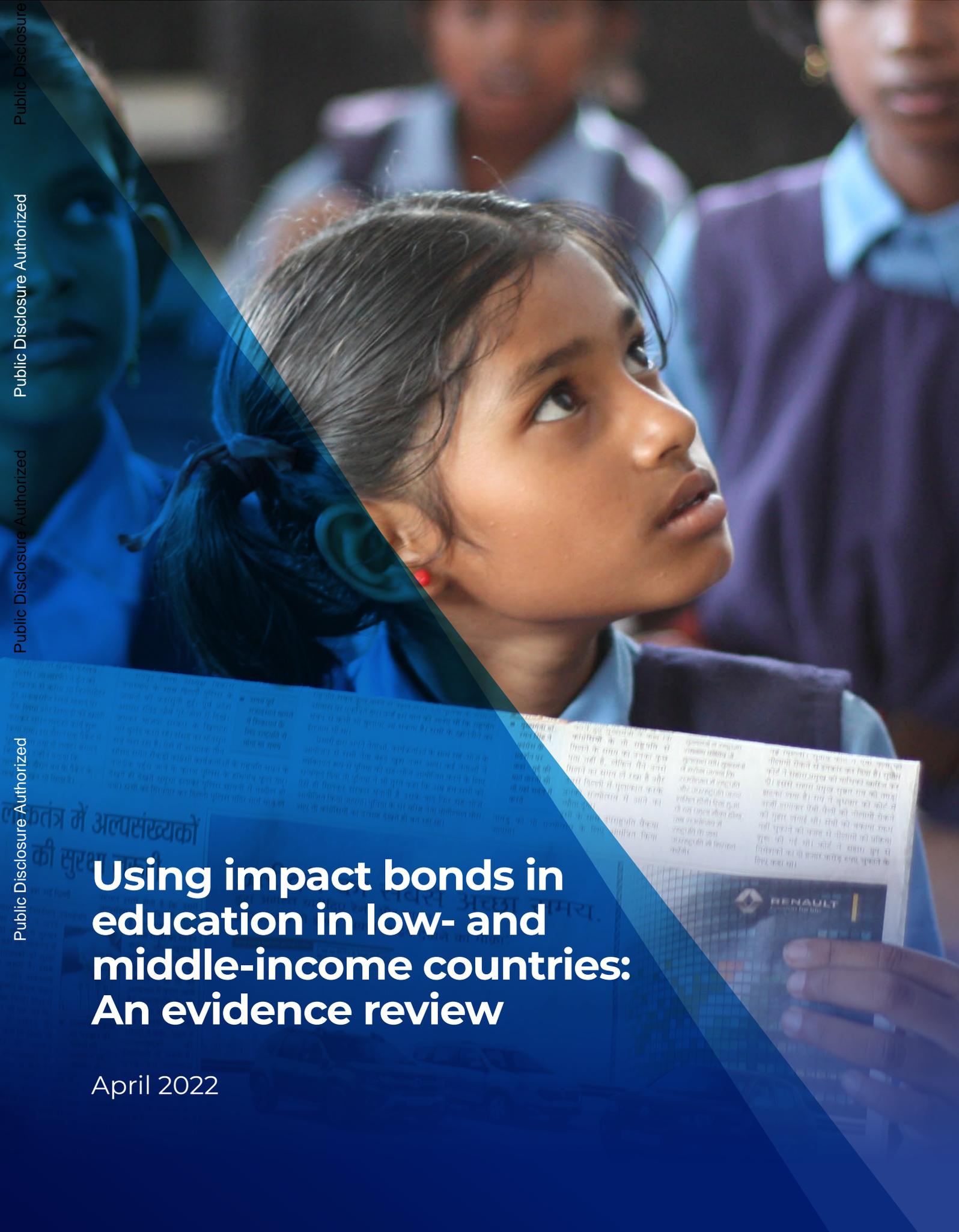


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Using impact bonds in education in low- and middle-income countries: An evidence review

April 2022



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Acknowledgments

The authors of this report were Angus Elsby, Rebecca Smith, Lilly Monk and James Ronicle. Juliana Outes Velarde of the Government Outcomes Lab (GO Lab) extracted data from the INDIGO Impact Bond dataset and provided analysis. Dr Eleanor Carter, Dr Harry Bregazzi and Vanessa Picker (GO Lab), and Dr Claire Leaver and Dr Zahra Mansoor of the Deliver Education Reforms Project (DeliverEd) reviewed and offered comments on the report.

The report builds on a systematic review into outcomes-based contracting being undertaken at the time of publication by Ecorys and the GO Lab. This has involved Rachel Wooldridge, Dr Harry Bregazzi and Vanessa Picker as the project coordinators, Dr Eleanor Carter and Dr Mara Airoidi as the academic leads, and the following individuals as researchers: Lilly Monk, Jo Llewellyn, Sophia Stone, Sam Greet, George Horton, Alex Pangalos, Cara Stoney, Valeria Miglio, Gabriela Freitas, Rebecca Smith, David Crane, Samantha Isaac, Angus Edwards, Michael Gibson, Franziska Rosenbach, Tanyah Hameed, and Dr Felix-Anselm van Lier.

For more information, please visit:

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<https://www.bsg.ox.ac.uk/research/research-programmes/delivered>

The was commissioned by the Results in Education for All Children (REACH) Trust Fund. REACH focuses on generating the evidence base around results-based financing in education and is supported by the governments of Germany, Norway, and the United States.

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Introduction

Impact bonds are a relatively new form of results-based financing (RBF) that attach payments to outcomes, and where financial risk is shared with third-party investors.

They are being increasingly used to support development in low and middle-income countries (L&MICs), including in education projects; at the time of writing this report (November 2021) the Government Outcomes Lab (GO Lab) [INDIGO dataset](#) contained five education impact bonds that had been launched in L&MICs (two in India and one in each of South Africa, Chile, and Russia), with the Education Outcomes Fund (EOF) about to launch two programmes that may include impact bonds (in Sierra Leone and Ghana). Because they are relatively new, there is still limited understanding with regards to when they are most appropriate, how they should be best designed, and what they could achieve. Some guides on impact bonds exist, but due to limited empirical research they are often conceptual and not always based on real-world examples.

This report aims to plug this gap. It provides an independent assessment of the current state and evidence of impact bonds launched to support education service delivery in L&MICs and explores where possible how they compare to other forms of results-based financing approaches used in education. It is aimed at a broad audience, and is intended to provide a general introduction to education impact bonds in L&MICs – the report signposts the reader to further guides and reading, for those wishing to find more detail on a specific topic.

This report is the first output informed by a systematic review into outcomes-based contracting being undertaken by Ecorys and the GO Lab, supplemented by four additional sources of data: 1) existing technical guides and reviews of results-based financing approaches; 2) INDIGO impact bond data; 3) stakeholder workshops; and 4) interviews with key stakeholders involved in launching education-focused impact bonds in L&MICs. A detailed description of the methodology informing this report is presented in Annex 3.

A review of the evidence available as of November 2021 highlights that, although there is useful evidence regarding the process of developing and launching impact bonds (including the key challenges, sticking points and factors leading to success), robust evidence comparing the effects of impact bonds to other types of funding mechanisms is limited. Moreover, published studies into impact bonds and other types of outcomes-based contracts in education tend to be qualitative in design and rely heavily on the testimony of stakeholders close to the projects, who may be more likely to extol the virtues of the model. In order for us to understand the effectiveness of the model further, we encourage those launching impact bonds to build opportunities for more rigorous evidence assessments into their design, such as simultaneously launching projects funded through impact bonds and other funding mechanisms, and comparing the two.

The remainder of the report is structured as follows:

- ▶ **Chapter 1** describes what impact bonds are and how they are different to other RBF contracting approaches. It also provides an overview of where and how they have been used to date, focusing on impact bonds launched in L&MICs and in the education sector.
- ▶ **Chapter 2** discusses why stakeholders might choose to implement an impact bond.
- ▶ **Chapter 3** presents some of the key steps in the process of launching an impact bond and discusses the key challenges. It includes examples of the approaches used by education impact bonds in L&MICs to overcome these challenges.
- ▶ **Chapter 4** provides an overview of the evidence regarding the positive and negative effects of studied impact bonds, as well as their costs relative to other RBF contracting approaches.
- ▶ **Chapter 5** contains conclusions and considers opportunities for international development agencies and financial institutions seeking to support the use of impact bonds in L&MICs.
- ▶ **The Annexes** include a glossary, bibliography with further reading, and a method summary.

Results-based financing overview

Here we introduce some key terms in relation to RBF and explain how an impact bond relates to other types of RBF instruments.

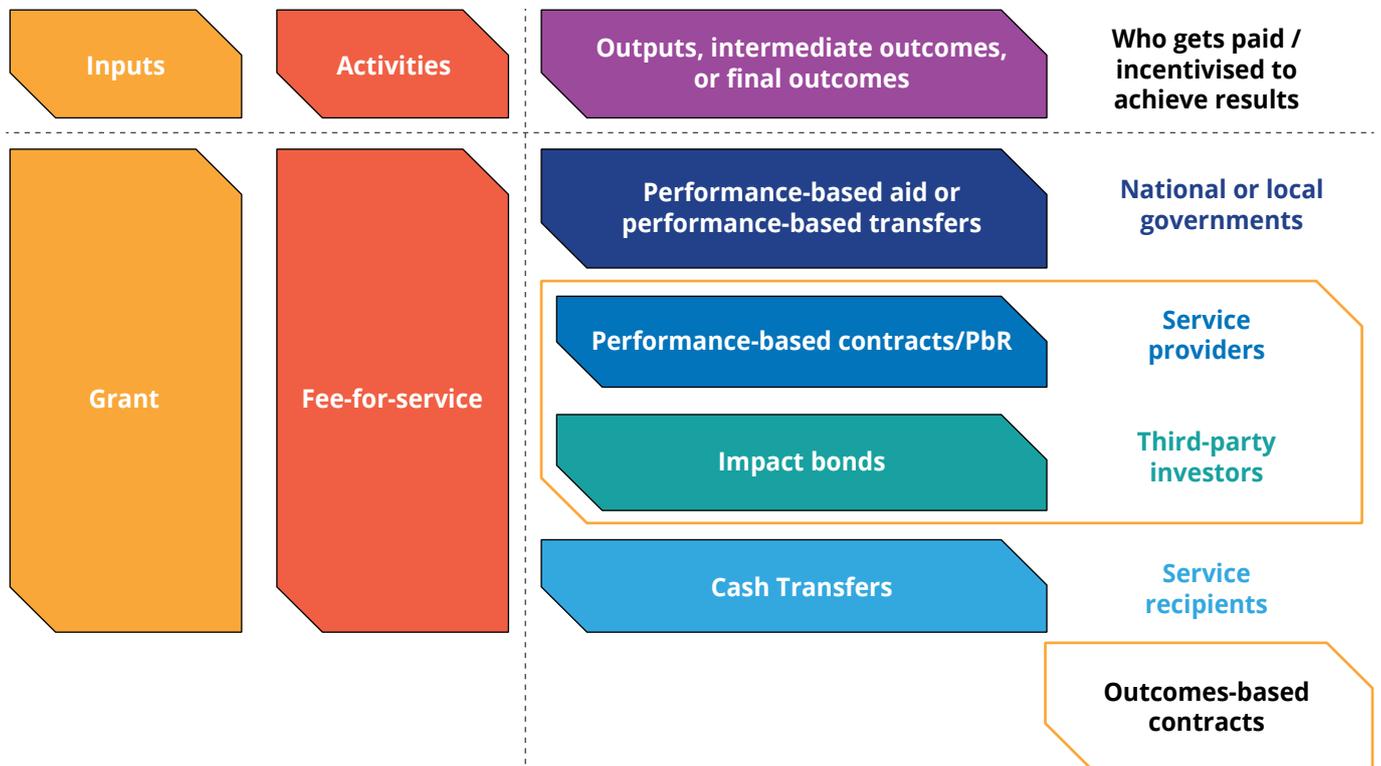
According to the World Bank, **results-based financing (RBF)** is an umbrella term referring to **any** program or intervention that provides rewards to individuals or institutions after the credible verification of an achieved result (Lee and Medina, 2018). This approach to contracting offers organisations funding aid interventions an alternative to traditional approaches (for example, grant or fee-for-service contracts) which link payments to the inputs or activities of the service. Among the most common forms of RBF are: *performance-based aid or transfers* to governments (also referred to as *cash-on-delivery aid*); *performance-based contracts* (also referred to as *payment-by-results (PbR)*) and *impact bonds* to non-governmental organisations (NGOs) and other service providers; and *cash transfers* to service users. Performance-based contracts/PbR and impact bonds

can also collectively be referred to as outcomes-based contracts (OBC) when payments are attached to outcomes. More information on these other forms of RBF can be found in: *Guide for effective results-based financing strategies* (Instiglio, 2018b). These different approaches to contracting vary across two key dimensions – as summarised in Figure 0.1:

- ▶ **What is being paid for along the results chain; and**
- ▶ **Who is being paid and, by extension, incentivised to achieve outcomes.**

The following section introduces impact bonds as a specific type of RBF instrument and describes the structure and features of the impact bond model in more detail.

Figure 0.1: Ways of contracting aid interventions



Source: Ecorys, drawing on 'Simplified Typology of RBF Instruments' presented in Instiglio (2018b, p.15)

1.0 What is an impact bond?

According to the GO Lab **impact bonds** are a type of outcomes-based contract because they attach payments to the achievement of the specified *outcomes*, rather than the inputs and activities, of a service.¹ This definition empha-

sises that the key feature that distinguishes impact bonds from all other outcomes-based contracts is the **explicit involvement of third-party investors** to provide the up-front capital needed to finance the service:



Impact bonds are outcome-based contracts that incorporate the use of private funding from investors to cover the upfront capital required for a [service] provider to set up and deliver a service. The service is set out to achieve measurable outcomes established by the commissioning authority (or outcome payer) and the investor is repaid only if these outcomes are achieved.”

The incentivised organisation in an impact bond is primarily the third-party investor² - it is they that either make a return, or lose money, depending on the success of the project. This arguably reduces the financial risks borne by organisations from the private or not-for-profit sectors – the service providers – compared to outcomes-based contracts which incentivise only service providers (for example, performance-based contracts/PbR). Another key implication of impact bond contracting arrangements is that the eventual cost of the project to the outcomes payer varies depending on service provider performance. However, impact bonds vary substantially in how they are designed, and some share the financial risk between investors and service providers (see Section 3 for more information in how they vary).

Impact bonds in which the outcome payer is the domestic government are referred to differently in different countries:



In the UK they are referred to as **social impact bonds (SIBs)**



In Europe they are referred to as **social impact partnerships**



In the US they are known as **pay-for-success (PFS) schemes**



In Australia they are often referred to as **social benefit bonds**.

Development impact bonds (DIBs) are impact bonds in which the outcome payer is an external donor. Despite these titles all containing the term 'bonds', the model does not necessitate any utilization or issuance of bonds.

¹ See: <https://golab.bsg.ox.ac.uk/the-basics/impact-bonds/>

² Service providers involved in impact bonds may also supply part of the upfront capital (albeit typically not in the same proportion of the investors). In these cases, service providers have a 'skin in the game' and bear a proportion of the financial risk alongside the investors.



Students in Jaipur, Rajasthan, settle in for lunch during the Educate Girls DIB evaluation. PHOTO: RYAN FAUBER



Educate Girls Development Impact Bond

Final Evaluation Report

10 June 2018

In Partnership with Children's Investment Fund Foundation, Educate Girls, Instiglio, and UBS Optimus Foundation



Example of a Development Impact Bond: Educate Girls (2015-2018) This impact bond aimed to improve the enrolment, retention, and learning for marginalised girls and boys in Rajasthan. It is considered a DIB because the **outcomes payer** was an external donor, the *Children's Investment Fund Foundation (CIFF)*. *Educate Girls* was the **service provider** and the *UBS Optimus Foundation* was the **investor**, and recuperated their initial \$270,000 investment plus a 15% annual return.

As shown in Figure 1.1 derived from the GO Lab's 'impact bond basics', impact bonds involve at least three key partners: the **outcome payer**, the **service provider**, and the **investor**:



Outcomes payers

identify the unmet needs and express a 'willingness to pay' for the achievement of specific social or development outcomes.



Service providers

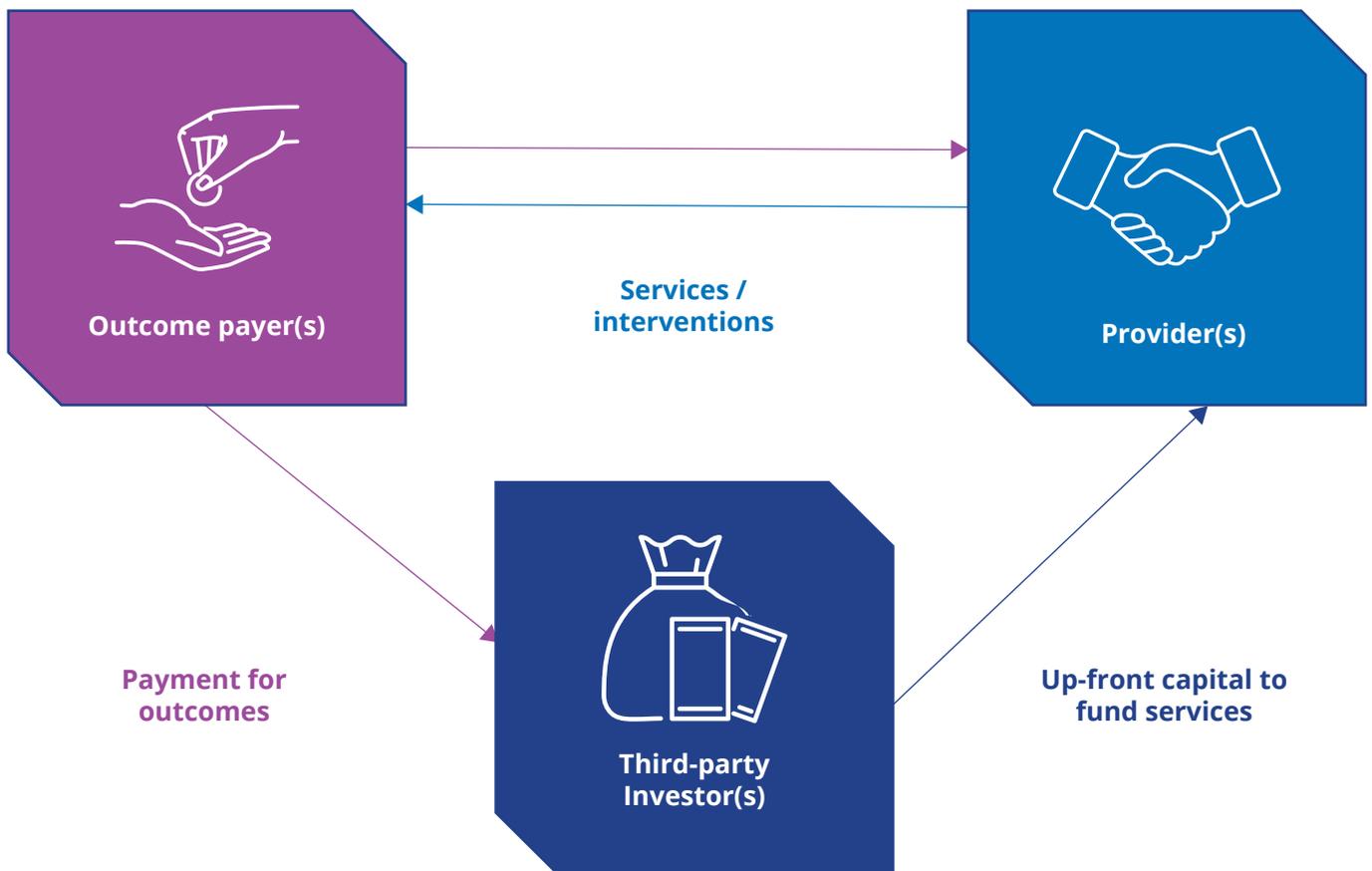
offer a service or intervention designed to meet the needs of those who receive it and achieve outcomes.



Investors

provide arrangements to finance the upfront delivery costs of the project. They get repaid either fully or in part depending on whether outcomes are achieved.

Figure 1.1: Key partners in impact bonds



Impact bonds often involve other organisations to provide specific services:

- ▶ **Consultants** often support the outcomes payer to develop an initial business case for the project before it is implemented and support it to come to fruition.
- ▶ **Investment fund managers** can manage funds on behalf of investors.
- ▶ **Intermediaries** act as a go-between and manage relationships between the key partners. **Special purpose vehicles (SPVs)** can be set up to bring together the parties in a contractual relationship and hold the contract directly with the service provider. The role of the SPV can vary; sometimes it includes performance managers responsible for ensuring the project achieves its outcomes.
- ▶ **Evaluators** conduct independent evaluations to determine whether a project has delivered the specified outcomes in order to trigger payments. Not all evaluations of impact bond projects are commissioned externally; some are conducted either partially or wholly in-house. In some cases, **learning partners** are also contracted to undertake monitoring activities that support ongoing adaptation and course-correction, or to capture the learning of funding the project through an impact bond.

Impact bonds can be launched as individual projects, or as part of a programme funding multiple impact bonds. Pro-

grammes of multiple impact bonds are often referred to as **outcome funds**. The first education-focused outcomes fund to launch was the Innovation Fund in the UK, which launched in 2012 and funded 10 impact bonds aimed at re-engaging young people aged 14 years and over with education, training and employment. An education-focused outcomes fund for L&MICs, the Education Outcomes Fund (EOF), was launched in 2018 with the aim of improving education provision for over 10 million children and young people in L&MICs through its projects.

1.1 Impact bonds across the globe

The first impact bond projects to launch in L&MICs were in 2015 in India (Educate Girls) and Peru (Asháninka). Until then, impact bonds had been used exclusively by governments in high-income countries to contract the delivery of domestic public services. This section presents data on impact bonds and impact bond investments by region, drawing on data hosted within the INDIGO Impact Bond dataset hosted by GO Lab. This dataset builds on other prominent datasets on impact bond use globally, most notably the dataset developed and hosted by [Brookings Institution](#). INDIGO was selected because it is open-source and so it is possible to provide more bespoke data relevant to education impact bonds. The data is correct up to November 2021.

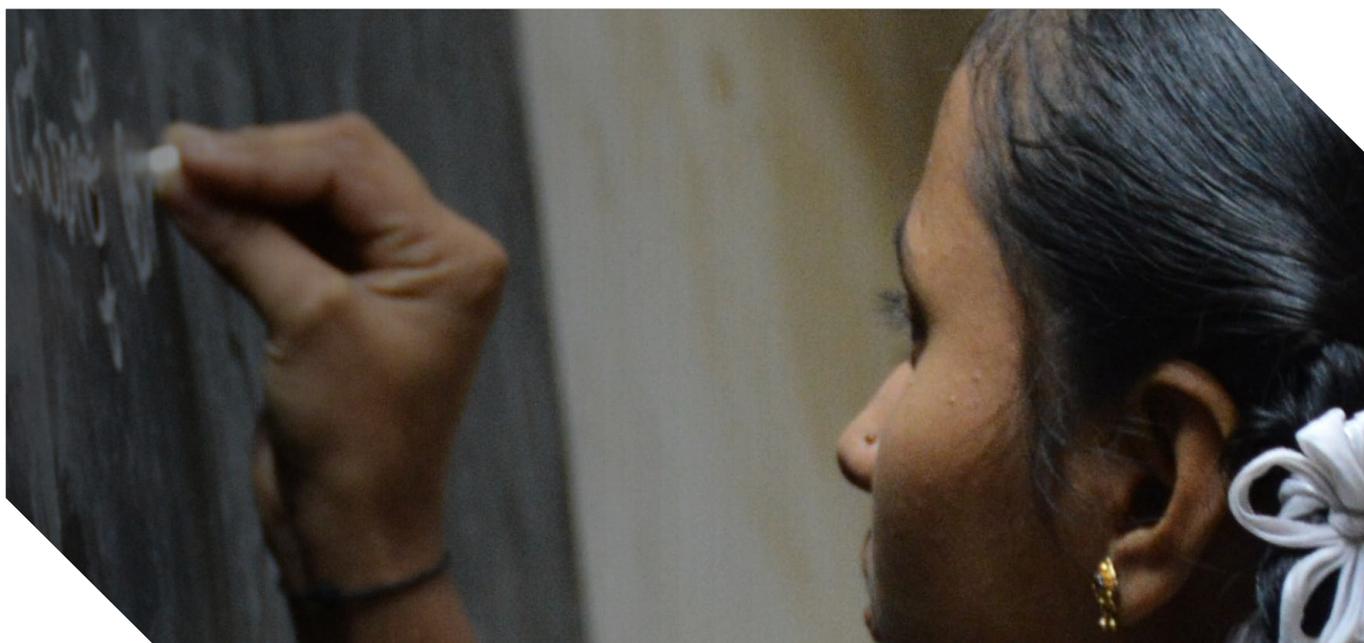


Figure 1.2 below presents the distribution of impact bonds by region. It shows that 225 impact bonds had launched by November 2021, 23 in L&MICs.

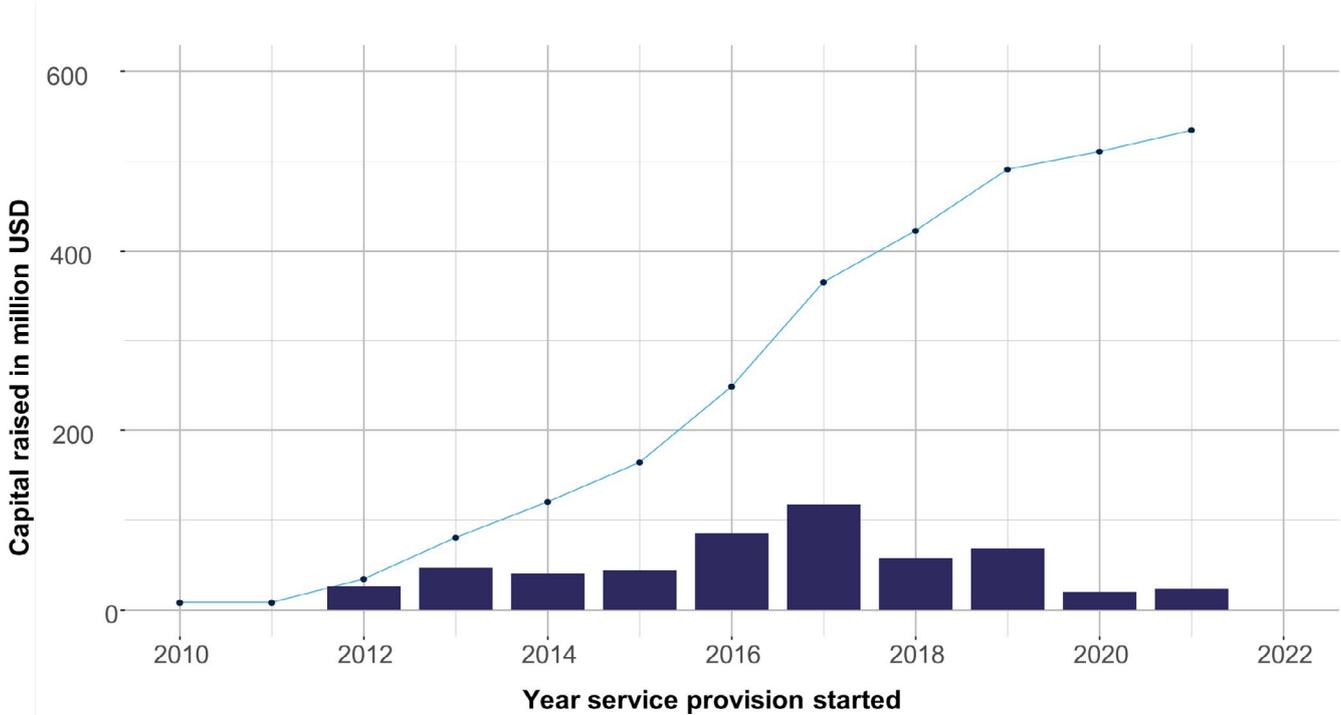
Figure 1.2: Geographic distribution of impact bonds



Source: INDIGO Impact Bond dataset (accessed November 2021). The pins represent individual impact bonds outside of a regional cluster and the colours refer to the number of impact bonds launched: Green <10, Yellow 10-100, Red >100.

Although impact bonds are present in most regions of the world, they have a particularly strong presence in Europe (151 impact bonds), a mid-level presence in North America (31), Oceania (16) and Asia (14), and an emerging presence in Africa (7) and South America (6).

Figure 1.3 below shows the evolution of investment in impact bonds globally. While impact bonds in L&MICs represent a small share (10%) of the total investment in impact bond projects, data suggests they account for over half of the service users reached by impact bonds; this is in part due to the comparatively lower levels of investment required to deliver public services in L&MICs.

Figure 1.3. Total investment committed into all impact bonds, 2010 - 2021

Source: INDIGO Impact Bond dataset (accessed November 2021). The bars represent the amount of investment committed into impact bonds in a given year (annual investment), while the line tracks the accumulation of committed impact bond investment (cumulative investment). Although the INDIGO Impact Bond dataset identifies 225 impact bond projects across the world, only 195 have published committed investment values.

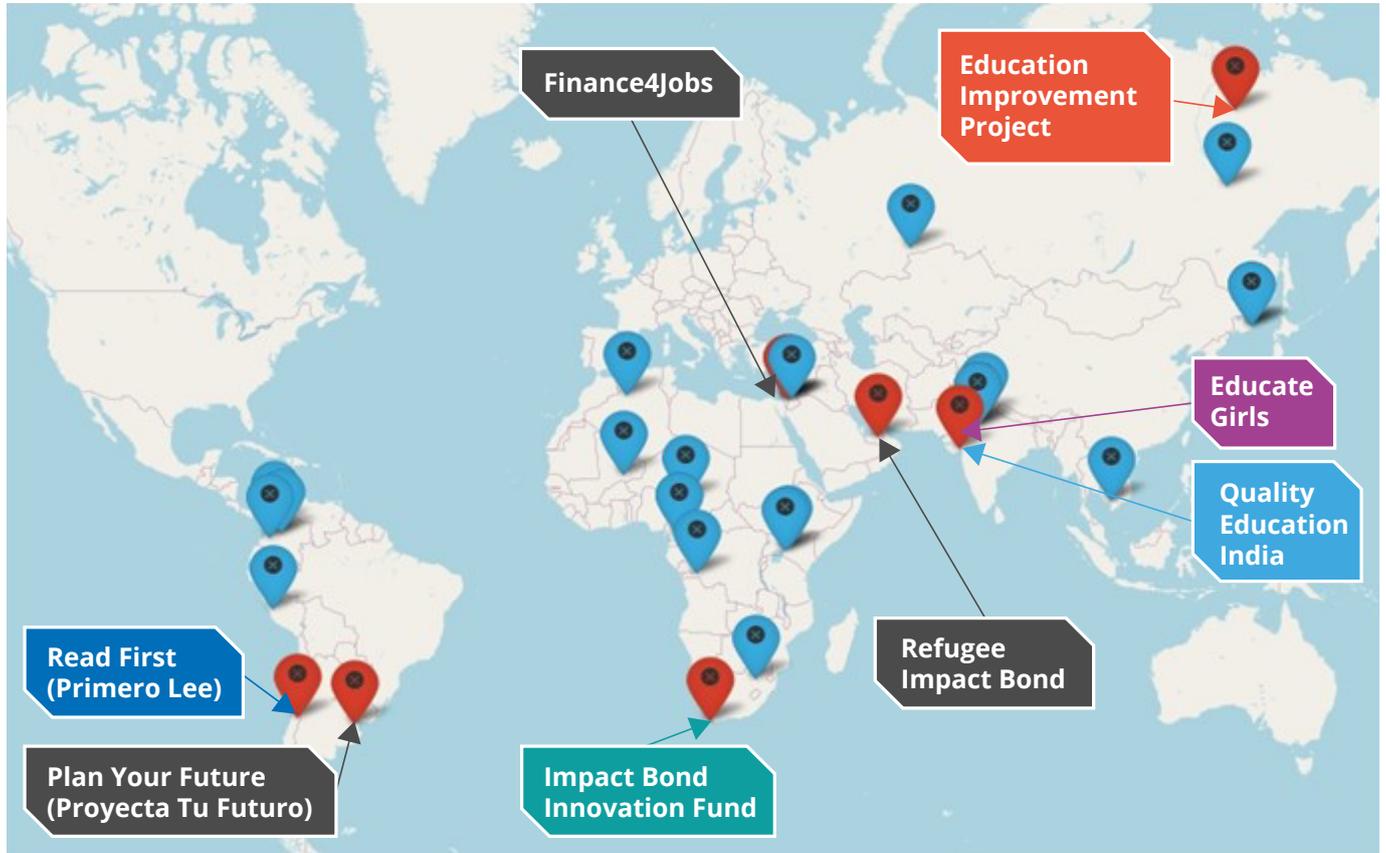
1.2 Impact bonds in education

This sub-section presents data on impact bond use in the education sector. It is based on interpretation of the INDIGO Impact Bond dataset and evidence from interviews with key stakeholders involved in launching impact bonds in the education sector within L&MICs. As of November 2021, 30 impact bonds classified by the INDIGO Impact Bond dataset as 'education' projects had launched, with others in development (see Annex 3). Of these 30 projects, only five were in L&MICs (*Educate Girls, India; Impact Bond Innovation Fund, South Africa; Quality Education India; Read First, Chile; and Education Improvement Project, Russia*). More education projects in L&MICs have been funded through other types

of outcomes-based contract: for example, the UK Government's £335 million *Girl's Education Challenge* programme was funded partly through a PbR contracting arrangement.

At November 2021 *Educate Girls* and the *Impact Bond Innovation Fund* had both closed, while *Quality Education India, Read First programme* and the *Education Improvement Project* were still in implementation. There were also a further 24 impact bonds classified as 'child and family welfare' or 'employment and training' that targeted at least one education-focused outcome (for example, early/pre-school learning or participation in further education) – bringing the total number of impact bonds with some form of education focus to 54. Three of these projects were in L&MICs (*Finance4Jobs – Palestine, Plan Your Future – Chile and the Refugee Impact Bond – Jordan*). Figure 1.4 below maps all identified impact bonds in L&MICs which include education outcome measures either as a primary or secondary focus.

Figure 1.4: Impact bonds in L&MICs



Source: INDIGO Impact Bond dataset³ (accessed November 2021). Blue pins represent impact bond projects; red pins represent impact bonds with at least one education-focused outcome.

Through consultations with the Education Outcomes Fund (EOF), this report identifies a further two education programmes (outcomes funds) in L&MICs that are in development and may include impact bonds: the Education Innovation Challenge in Sierra Leone and an unnamed programme

in Ghana. Table 1.1 provides details on the location, size and focus areas of the identified education programmes/projects in L&MICs, with more detail on each impact bond project/outcomes fund provided below the table.



Table 1.1: Education-focused impact bonds or outcome funds in L&MICs

Impact bond / Outcomes fund	Country	Cohort size (individuals)	Outcomes Funding (maximum)	Return on investment (target or actual, depending on project progress)	Status	Focus areas
Educate Girls	India	15,000 (9,000 of them girls) (target); 7,300 (actual)	\$422,000	15% actual IRR ⁴	Closed (May 2015 – May 2018)	Primary and secondary girls' learning and participation
Impact Bond Innovation Fund	South Africa	2,000 individuals (target); 4,000 individuals (actual)	\$1.04 million	14% actual IRR (capped at 16%)	Closed (2017 – 2020)	Pre-school learning
Quality Education India	India	300,000 individuals (target)	\$9.2 million	8% target IRR	Implementation (April 2018 – July 2022)	Primary school learning
Read First programme	Chile	Data unavailable	\$319,170	Data unavailable	Implementation (March 2019 – March 2022)	Primary school learning and teacher performance
Education Improvement Project	Russia	5,000 individuals (target)	Data unavailable	Data unavailable	Implementation (August 2020 – September 2022)	Secondary school learning
Sierra Leone Education Innovation Challenge	Sierra Leone	~100,000 individuals (target)	\$30.47 million	Not yet launched	Design (to be launched in 2022 and run until 2024)	Primary school learning
Education Outcomes Fund Ghana programme	Ghana	170,000 individuals (target)	\$30 million	Not yet launched	Design (to be launched in 2022 and run until 2024)	Primary school participation and learning

Source: INDIGO Impact Bond dataset (for all except Sierra Leone and Ghana) and information provided by the Education Outcomes Fund (for Sierra Leone and Ghana). Colour coding added to identify projects throughout this report.

Educate Girls was the first impact bond of any kind in any L&MIC. It focused on improving access and the quality of education for girls in one state, Rajasthan, in rural India, where 40% of girls drop out of school before reaching fifth grade. The service provider – *Educate Girls* – received an investment to run a pre-existing intervention to identify out-of-school girls and work with the community to enrol

and teach them in the classroom. This impact bond involved the *Children's Investment Fund Foundation (CIFF)* as the outcomes payer. *The UBS Optimus Foundation* provided upfront capital to *Educate Girls* and, upon verification of the achievement of predefined enrolment targets and learning measured through the Annual Status of Education Report (ASER) test in a Randomised Control Trial (RCT), *CIFF* paid

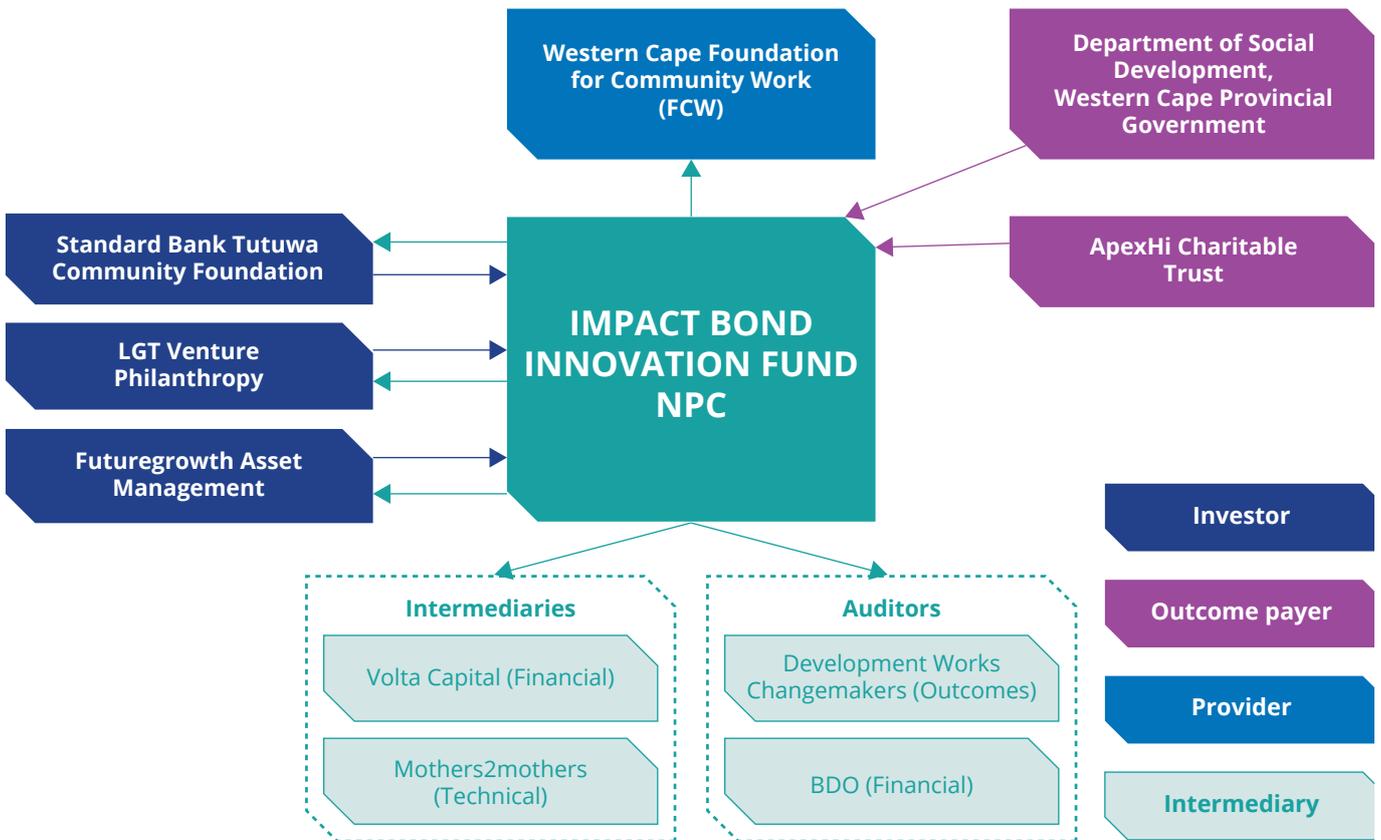
4 Internal Rate of Return (IRR) is a way of converting the total returns on an investment, for instance profits made by a business or in this case total outcome payments, into a percentage rate. The rate is calculated over the length of the investment and varies according to cash flow, impacting how quickly and soon payments are made. IRR calculations are complicated, but the earlier the money is returned the higher the IRR, because IRR takes account of the 'cost of money'

back the *UBS Optimus Foundation* their initial investment plus a return. A portion of the results payment was shared with *Educate Girls*, thus providing them a financial return rewarding success. More information on this impact bond is available in the report [Educate Girls Development Impact Bond](#) (Instiglio, 2015).

The Impact Bond Innovation Fund (IBIF) was the first impact bond launched in Africa, and one of only a handful globally that focused on early childhood development (ECD). It aimed to deliver ECD outcomes in the Western Cape, with delivery beginning in November 2017 for a three-year period ending in November 2020. *Standard Bank Tutuwa Community Foundation*, *LGT Venture Philanthropy* and *Futuregrowth Asset Management* provided the upfront capital. The service provider – *Foundation for Community Work (FCW)* – delivered their ‘Family in Focus’ (FiF) programme in two areas (Delft and Atlantis). Verification

of recruitment, attendance and Early Learning Outcomes Measure (ELOM) outcomes benchmarked against children of similar ages and backgrounds from FiF triggered payments, made by two outcome payers in a matched funding arrangement by the *Department of Social Development (DSD)* and *ApexHi Charitable Trust*. Intermediary support was provided by *mothers2mothers* (technical) and *Volta Capital* (financial). The structure of IBIF is illustrated in Figure 1.5 below. \$1.04million in outcome payments were made paid into the IBIF non-profit company (NPC), from which investors were paid with annualised rates of return up to 16%, ultimately achieving 14% IRR upon project completion. More information on this impact bond is available in the Intellidex SIBs research series, entitled [The Impact Bond Innovation Fund: The risks and returns of innovative finance for social change](#) (Intellidex, 2021b).

Figure 1.5: Impact bond structure of the Impact Bond Innovation Fund (IBIF) in South Africa



Source: Adapted from Intellidex (2021b), colour emphasis added.

Quality Education India is currently the largest education impact bond in any L&MIC. It incentivises a range of interventions run by different service providers (Gyan Shala, Kaivalya Education Foundation [KEF], Society for All Round Development [SARD], Educational Initiative, Pratham Infotech Foundation [PIF]) in three districts in India (New Delhi, Ahmedabad and Surat.). This impact bond focuses on learning improvements. The service providers deliver a mix of direct and indirect education model types: KEF delivers an indirect management programme that focuses on whole-school leader training; GyanShala delivers a direct programme, running classrooms for children in urban slums; SARD implements one direct model (remedial education) and one in-direct (teacher training). Due to underperformance in Year 1 the indirect SARD model was dropped; in its place KEF expanded their indirect model into Mumbai and a new intervention was added led by Educational Initiative and PIF. Quality Education India is funded collectively by philanthropic organisations in the US (Michael and Susan Dell Foundation and the Ellison Foundation), India (Mittal Foundation) and the UK (Comic Relief and British Telecom). The British Asian Trust (BAT) acts as outcomes convenor, raising funds from the various foundations. As with Educate Girls, UBS Optimus Foundation provides the up-front investment. Dalberg is the performance manager and CGI is the independent outcome evaluator. More information on this impact bond is available in the case study report Quality Education India Development Impact Bond produced as part of the FCDO DIBs Evaluation (Ecorys, 2021b).

Read First (Primero Lee) was Chile's first impact bond. It incentivises a local service provider, *Fundación Crecer con Todos*, to deliver an intervention building teaching capacity within kindergarten and primary school settings. With its focus on learning (literacy) outcomes this project is similar to *Educate Girls* and *Quality Education India*, but additionally it includes an outcome on teaching quality. *Read First* therefore stands out as the only education impact bond in L&MICs which includes an outcome measure for education service providers (in this case, teachers), in addition to education service users. Quality implementation of the programme by teachers will be measured by activity checklists, and children's attainment measured by pre-existing standardised tests. Five charitable foundations and philanthropists fund this impact bond, while up-front capital is provided by a consortium of five investors via impact investment platform *Doble Impacto*. Although there is little published evidence on this impact bond as of November 2021, a summary is available in the factsheet [Chile Literacy Impact Bond](#) produced by Social Finance (2020).

The Education Improvement Project is Russia's first impact bond. It was agreed to be launched during the St. Petersburg International Economic Forum in June 2019 and is scheduled for implementation between 2020 and 2022. It aims to improve the levels of Russian and mathematics amongst students in the predominantly rural province of Yakutia. The outcomes payer is the local *Ministry of Education and Science* and the service provider is *Higher School of Economics University* - a leader in Russian education provision. There is one investor who is not identifiable in published evidence. More information on the project is available on the [service provider's webpage](#).

The Sierra Leone Education Innovation Challenge is an outcomes fund currently being developed by the Education Outcomes Fund to support existing grant-funded provision in a representative sample of Sierra Leone's public schools without taking over school management. It is expected to work with a range of providers, operating at varying levels of scale, over three academic years. Service providers that need funding support upfront in order to implement interventions have the option of partnering with social investors (which would make these projects impact bonds). Under the first year of the programme, service providers will be paid for activities completed according to their workplan. Only in years 2 and 3 will payments be tied to learning improvements and competency levels. The first year of fee-for-service activity sets the impact bond apart from the other education impact bonds in L&MICs and is considered necessary by developers of the programme to enable service providers to establish and gather baseline data before any capital is 'at risk'. Details on this programme were extracted from consultations with EOF stakeholders; no information had been published by November 2021.

The Education Outcomes Fund Ghana programme is currently under development. The Education Outcomes Fund and Ghana Accountability for Learning Outcomes Project (GALOP) aims to improve the quality of education in low performing basic education schools and strengthen education sector equity and accountability in Ghana. The programme aims to broaden the market for investment in Ghana, with community organisations supporting individuals as well as additional actors driving wider improvements. The programme is currently in the early design stage, procuring social investors and government actors. Details on this impact bond were extracted from the INDIGO Impact Bond dataset and an [online learning event](#) facilitated by the GO Lab in January 2022; no further information on this impact bond had been published by time of publication.

2.0 Why consider an impact bond?

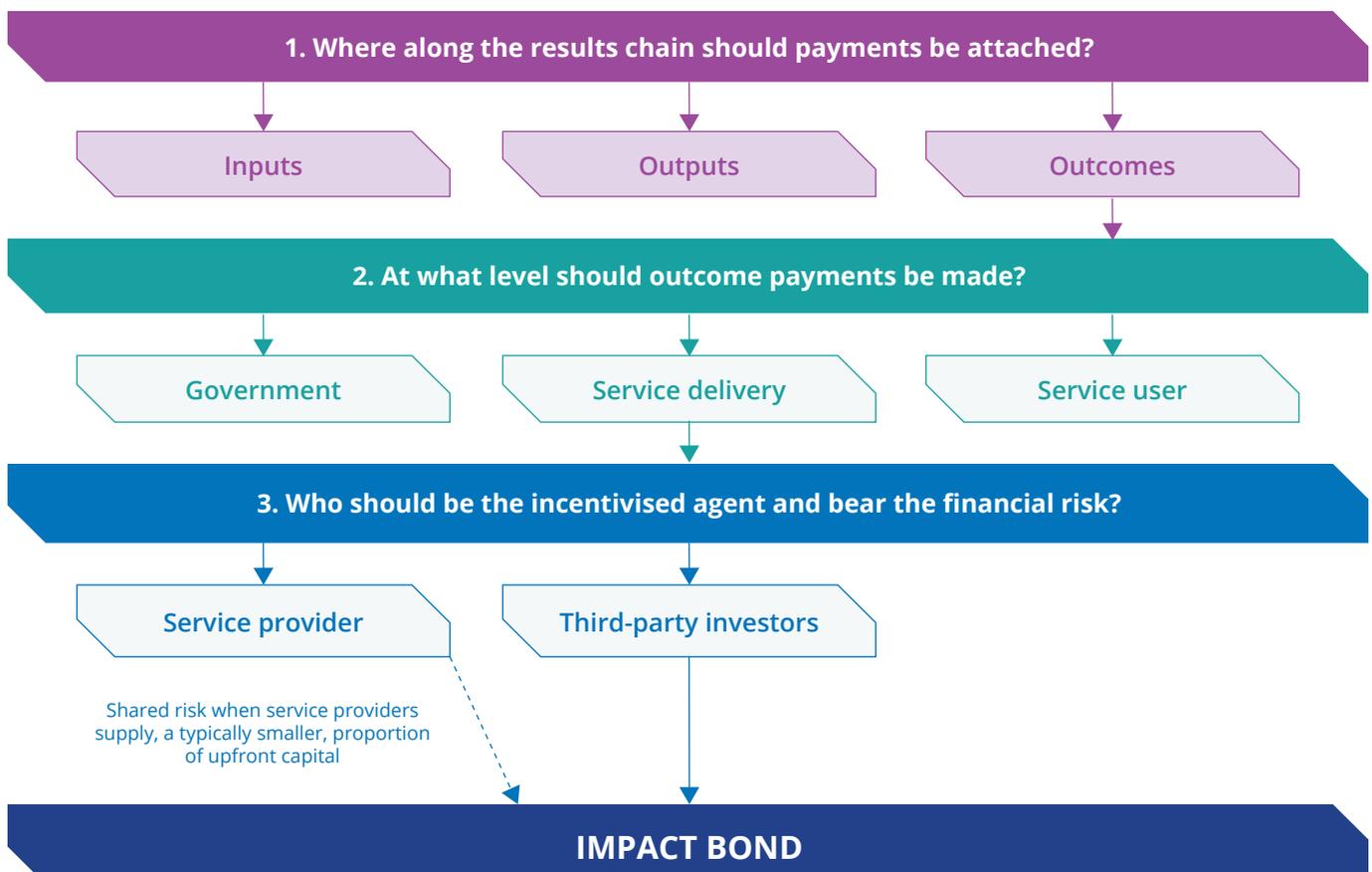
Impact bonds are newer and less-established in development contexts than other forms of RBF. Why should impact bonds be considered by organisations when there are other more widely-used RBF mechanisms available?

When consulted, key stakeholders involved in launching education-focused impact bonds in L&MICs highlighted that in considering how to fund a project, funders should undertake an options appraisal, focusing on three core areas. An impact bond could be considered if the following circumstances exist:

1. There would be benefit in linking payments to outcomes
2. Outcome payments should be at the service-delivery level
3. The service provider is unable to bear all the financial risk of non-performance.

This is summarised in Figure 2.1, and explained below.

Figure 2.1: ‘Why consider an impact bond?’ decision tree



Source: Ecorys (Based on stakeholder consultations)

1. Where along the results chain should payments be attached?

Here, a funder has several options:

- ▶ **Input-based:** Funding is provided to cover the costs of delivery. It is not contingent on achievements. This could include delivery 'in-house' – i.e. the funder providing funding within its own organisation – or through a grant or contract to an external organisation. Stakeholders interviewed described how there are a number of reasons why a funder might choose this approach – they may conclude that their own organisation is best placed to deliver the service; the context in which the service is operating might be so complex that it would not be possible to attach payments to deliverables or outcomes; or the service might be highly experimental, where it is not yet clear what could be delivered or achieved.
- ▶ **Output/activity-based:** Funding is attached to the achievement of outputs specified within a contract (such as number of education sessions delivered). A funder may choose this approach if there is a very clear evidence link between the outputs and outcomes, and so they do not necessarily need to prioritise the achievement of outcomes – they can assume that focusing on delivering the outputs well will achieve the intended outcomes. For example, this could be applied to a vaccine roll-out programme; the efficiency of the vaccine will already have been demonstrated through trials, and the priority of the intervention will be on administering a sufficient number of vaccines.
- ▶ **Outcome-based:** Funding is attached to the achievement of outcomes. A funder may choose this approach if they believe outcomes are not currently being sufficiently prioritised and a financial incentive may increase this focus; or it is not possible to attach payments to specified outputs because it is not yet clear what those specific outputs would be – this would be the case if the evidence link between the outputs and outcomes is not yet established, and so the intervention would need adapt and respond to achieve the intended outcomes.

2. At what level should outcome payments be made?

The funder will need to make an assessment of at what level outcome payments should be made. This will be context-specific, and will depend on the priorities and remit of the funding organisation, as well as an assessment of where the barriers to success currently lie. The funder has a range of options:

- ▶ National or local government
- ▶ Service delivery
- ▶ Service user

3. Who should bear the financial risk of non-performance?

If the funder decides to implement a RBF project, then the incentivised agent is taking on financial risk – they risk not getting paid if the specified results are not achieved. As a part of the options appraisal, there will need to be a consideration of who can bear this financial risk. If the incentivised agent is a service provider, and it is concluded that they cannot or should not take on all of the financial risk, then a third-party investor could share this risk with the service provider.

This decision may be reached if it is concluded that:

- ▶ the service provider does not have the resources available to cover the upfront running costs before outcome payments are made;
- ▶ the service provider is unable to take on the financial risk of an outcomes-based contract; and/or
- ▶ service provider financial risk has a strong likelihood of driving perverse incentives.

For example, these challenges were faced in *Girls Education Challenge* Phase 1 (2012-2017), which utilised a PBR structure. Despite only 10% of payments being contingent on results this still posed issues for *Girls Education Challenge* projects. Notably, not all projects adhered to the 10% PBR element, opting to reduce the percentage (Holden and Patch, 2017). In this situation, an impact bond could have been appropriate to share this financial risk.

It is important to note, however, that no single organisation has to take on all of the financial risk – it can be shared between parties. For example, in the ICRC Humanitarian Impact Bond, the financial risk is shared between numerous stakeholders; in the case of non-performance, the investor will lose 40% of their upfront capital, with the outcome payers paying back 50% of the capital and the service provider (ICRC) paying back 10% (Ecorys, 2019). The funder does not necessarily have to consider this question in their options appraisal – they could decide that the service provider should be the incentivised agent, and allow service providers to determine whether they can bear the financial risk themselves, or whether they should seek external risk-bearing finance; this is the process being adopted by the Sierra Leone Education Innovation Challenge.

2.1 Use cases for education impact bonds

This sub-section explores the reasons why existing education impact bonds in L&MICs were introduced, with a particular focus on this chosen finance mechanism as opposed to another form of RBF.

As described in Annex 3, all studies identified through the systematic review were coded to identify the use case for the chosen financing mechanism. However, the question on impact bond use cases is difficult to answer succinctly, as this is not often articulated explicitly in published research, and the justification is often intertwined with wider efficiencies, innovations and performance management adaptations that are not necessarily unique to impact bonds but RBF more generally. Indeed, stakeholders can sometimes decide to develop an impact bond because of its innovative nature and the attractiveness of accessing private finance, without necessarily considering all of the options available to them. For example, the evaluation of the FCDO DIBs Evaluation found that the four DIBs examined were all designed ‘DIB first’; there was first an interest in testing the DIB mechanism, and then a suitable project was identified (Ecorys, 2021a). The evaluation warned that this may mean that not all options were considered, and the impact bond may not necessarily have been the most appropriate tool.

Where use cases were clearly articulated, these focused primarily on using an impact bond to access external investment to fund what stakeholders perceived to be an under-resourced area (IBIF), or to support NGOs to be involved in outcomes-based contracting that lack access to capital (QEI). These use cases are articulated below, taken from the relevant reports:



Government’s ability to pay is declining due to the economic recession and falling tax revenues. This calls for innovative financing mechanisms – like SIBs – to mobilise private capital. In the IBIF, the potential of drawing in private investment capital represented a welcome injection of funds into an under-resourced area. Although it is the outcome funders who ultimately pay for successful programmes, the investors here catalysed the innovations in early learning service delivery that have improved the quality of services received by children and their caregivers.”

Intellidex (2021b) emphasis added



To galvanise the market of high performing NGOs in India to support the learning crisis. Despite promising evidence of increased enrolment at school, there is ongoing concern that children in India perform lower than expected in their literacy and numeracy skills due to low quality primary school education. While there is an established market of service providers in India, and a number of high performing NGOs with viable solutions, they are often limited by the availability in capital, inadequate performance management systems and poor coordination between stakeholders. The flexible outcomes-focused financing mechanism in the DIB model offers the opportunity to test a range of proven models, at scale, with the opportunity to compare their performance within a shared framework of monitoring and evaluation.”

Ecorys (2019) emphasis added

However, deciding on whether to launch an impact bond not only dependent on the above factors, but also on the local context. As the next section shows, there are a set of

pre-conditions that determine how easy or difficult it can be to launch impact bonds within particular contexts.

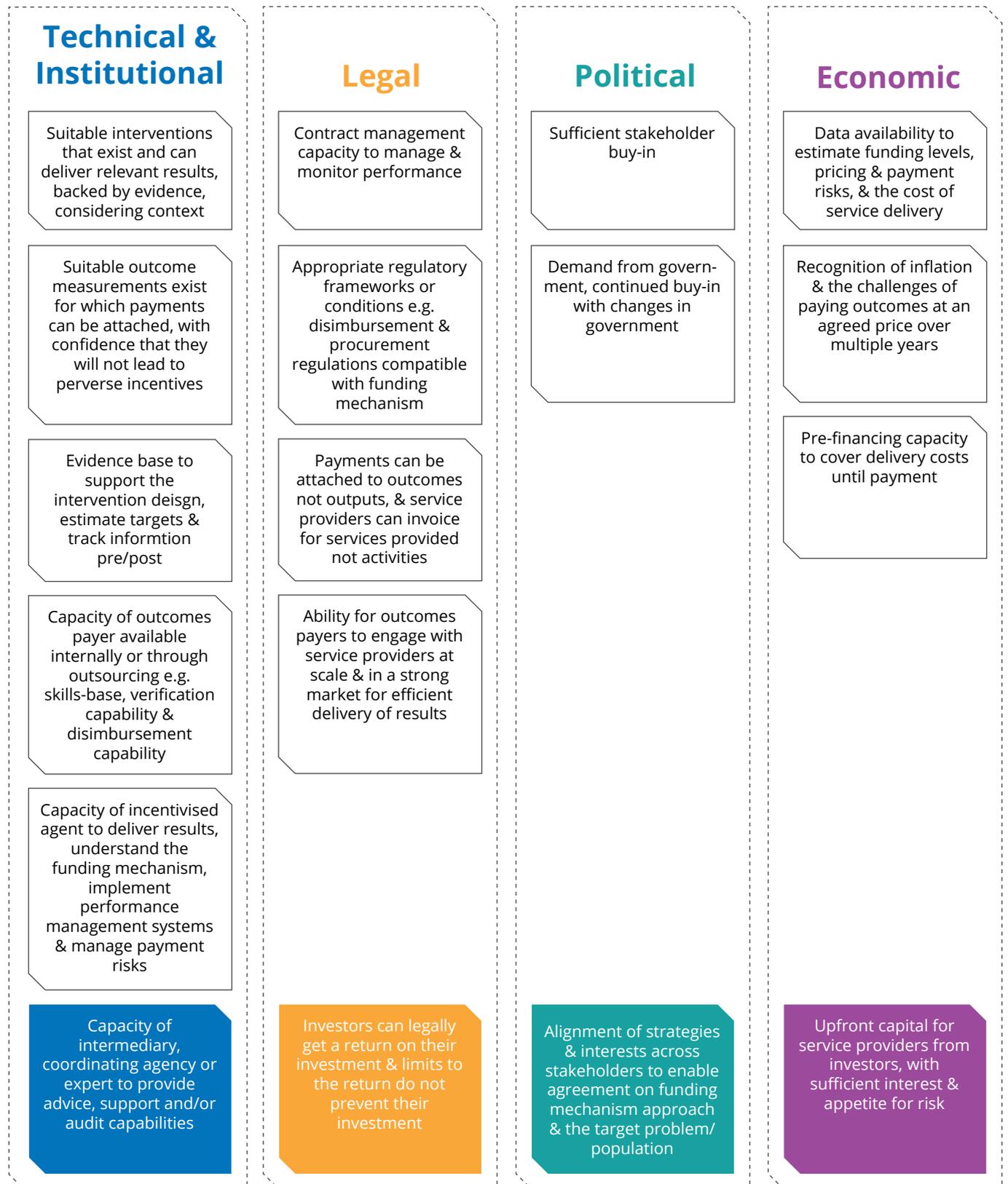
2.2 Assessing the feasibility of launching an impact bond

Various considerations should be made when assessing the applicability of impact bonds in certain contexts. A number of research projects have examined the pre-conditions that support the effective launch of impact bonds. For example, Ecorys research into the pre-conditions that determined whether social impact bonds launched in Latin America concluded that five conditions were necessary, the DREAM framework (Augusti Strid and Ronicle, 2021):

- ▶ Demand from government
- ▶ Supportive **R**egulatory framework
- ▶ Supportive **E**conomic and political context
- ▶ **A**vailability of data
- ▶ **M**arket capacity.

Figure 2.2 outlines the pre-existing technical, institutional, legal, political and economic aspects that should be considered when implementing RBF, drawn from Instiglio's (2018) prior work on RBF, which built upon Pritchett's (2005) elements of policy design. The considerations in applying impact bonds (highlighted in colour) are shown in Figure 2.2, informed by the evidence gathered through the systematic review and from consultations undertaken with key stakeholders involved in education-focused impact bonds in L&MICS. The degree to which these elements are absent or present will help determine how easy or difficult it will be to launch an impact bond. We provide detail on the most critical elements below.

Figure 2.2: Conditions that determine the feasibility of an impact bond



Source: Adapted from Instiglio (2018b, Table 4.2) and Augusti Strid and Ronide (2021, DREAM framework), colour emphasis added and informed by the studies identified through systematic review and stakeholder consultations for this report.



Technical and institutional

Sufficient **service provider capacity** within education and country systems appear important to support the implementation of impact bonds and other RBF projects (Results for Development Institute, 2016b). Having credible and experienced service providers is important for successful delivery and for attracting investment (Can-

ning, 2017). However, experienced service providers may be challenging to find in L&MICs due to the demanding technical and evaluation requirements of an impact bond project. Intermediaries with focused expertise in impact bonds can sometimes help to plug gaps in technical capacity (see box below).

Success factor: capacity-building.

Technical support in the form of training, follow-up visits, data management support, or other capacity-building is usually required for education outcomes-based contracts (Lee and Medina, 2018). Previous outcomes-based contracts in education and health have successfully incorporated Quality Assurance Specialists (Lee, 2021) or regular review meetings (Wilhelm et al., 2016) into their programmes to this end. Building capacity support into the design of a programme, or securing a grant to cover this, can improve delivery effectiveness and increase the credibility of a project to investors and outcomes funders (Ecorys, 2021a). For the *Impact Bond Innovation Fund*, an intermediary (mothers2mothers), provided technical assistance and capacity building services, and Volta provided monitoring and evaluation capacity building support to the service provider to maximise the potential of achieving outcomes and improve processes (Intellidex, 2021b).

A robust **evidence base** underpinning the level of demand, cohort characteristics, and intervention theory of change is also considered a desirable precondition for successful implementation of both impact bonds and outcomes-based contracts (NAO, 2015). Having a strong evidence base about the needs of a cohort enables the development of credible and realistic outcomes metrics and targets, fundamental to the success of social outcomes

contracts. It also enables investors to assess the financial risk of the investment. When this isn't the case, it can inhibit the ability to launch the impact bond, result in the re-profiling of outcomes targets in social outcomes projects, education or otherwise (ICF Consulting Services, 2017; Olken, Onishi and Wong, 2012), or simply not meeting targets which can result in the early closure of a project.



Legal

There is also evidence that the existing **legal, financial and regulatory framework** is critical for the success of impact bonds. In some contexts, outcomes payers may not have the mechanisms to directly transfer, or disburse, funds to participating organisations. This can create delays due to the significant time resource required to establish new financial and regulatory structures tailored for impact bonds and other RBF projects (Lee and Medina, 2018; Wilhelm et al., 2016).

A study into the use of impact bonds in Latin America found that the legal framework in Colombia, for example, posed a barrier to disbursing funds through an impact bond contract (Augusti Strid and Ronicle, 2021). Consultations with the Education Outcomes Fund for this knowledge product highlighted that an unsupportive regulatory framework is common when implementing impact bonds for the first time in a new context and also that the rigid procurement rules often used by governments and development agencies to reduce risks of corruption can take time to update for impact bond procurement contracts. This particular issue reportedly delayed the launch of an impact bond in Ghana by over a year. Since in-country legal frameworks and government/development agency procurement templates may not be suitable, time for establishing and pioneering new legal frameworks should also be factored into decisions on whether to launch an impact bond in L&MICs. It can also take time to explain what an impact bond entails to lawyer and fiduciary specialists. More bespoke contract templates from existing impact bond projects, such as the Educate Girls' Framework Contract and the UK Government's SIB Template Contract are available in the [Technical Guidance page](#) of the GO Lab website.



Political

Stakeholder buy-in is a critical element in determining the likelihood of whether an impact bond is feasible or not. Many of the other challenges outlined here are surmountable provided there is sufficient buy-in and willingness to tackle them. Clear role definitions supported by strong governance and early and frequent communication can facilitate positive relationships, ongoing engagement between stakeholders and collective leadership in outcomes-based contracts (Ecorys, 2021a, Nonprofit Finance Fund, 2019; Social Research and Demonstration Corporation, 2017).

Evidence suggests that **government engagement** in the project can be a critical precondition for success, whether the government are contractually involved in the impact bond or not (Gustafsson-Wright et al., cited in Andreu, 2019; Gustafsson-Wright, Gardiner and Putcha, 2015). For example, when the outcomes payer is non-governmental, within the context of L&MICs it is critical to ensure that outcomes-based contract projects align with the administration's policy priorities to ensure success and sustainability (Results for Development Institute, 2016b; Gustafsson-Wright et al. cited in Andreu, 2019).

To ensure ongoing government buy-in, impact bonds should be designed and launched within a single electoral cycle to prevent loss of engagement when staff and priorities change, and/or there should be a strong sense that the likely future government will also support the project. Learnings from a performance-based loan project in Pakistan (the *Benazir Income Support* programme) highlights the challenges of losing government support due to elections during the implementation of a performance-based loan project; the project was closed early and trainers and trainees did not receive payments they were owed (In-stiglio, 2018a). Interventions led by the government, or with **key senior stakeholder buy-in**, are essential to ensure impact is embedded and wider system change supported for sustainability.



Economic

Impact bonds require external investors willing to **provide upfront capital** and take on (all or some of) the financial risk of non-delivery. The rate of return an investor will want to see will need to be aligned with the **level of financial risk** in order for them to invest. It can be challenging to launch an impact bond if investors think the financial risk outweighs the level of return outcomes funders are willing to pay. For example, the Cameroon Cataract Bond initially struggled to raise investment because of this challenge

(Ecorys, 2020). This challenge can be overcome by 'stacking' together different investors, with investors more willing to take financial risks to achieve high levels of social impact acting as 'first loss' capital, which reduces the financial risk of other investors. This has been quite common in impact bonds in the United States, such as the Rikers Island SIB, in which part of the Goldman Sachs investment was underwritten by Bloomberg Philanthropies (Nonprofit Finance Fund, 2019).



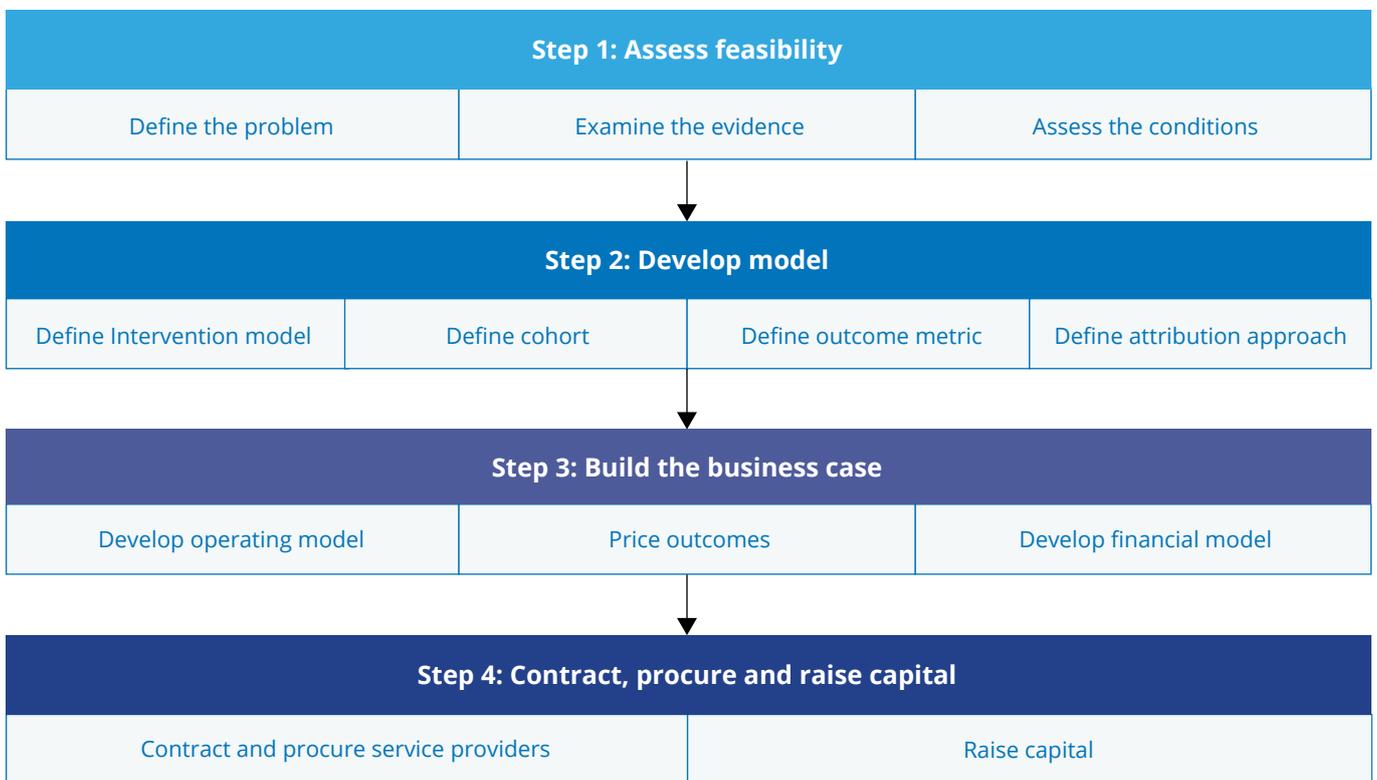
3.0 Challenges and successes in designing impact bonds

This sub-section presents some of the key steps in the process of launching an impact bond and discusses the key challenges, drawing on evidence from papers identified in the systematic review. It includes examples of approaches used by education impact bonds in L&MICs to overcome these challenges, some of which were explored during consultations with key stakeholders. This body of evidence suggests that, relative to traditional forms of contracting, impact bonds can be complex arrangements that can be difficult to design and develop. Delays in the set-up phase before launching impact bonds are common and can result in reduced implementation periods, putting outcomes achievement at risk and potential frustration amongst stakeholders.

Figure 3.1 presents four of the key steps that shape an impact bond's design (drawn from Centre for Global Development, 2013). Although impact bonds differ significantly in their structures, these four steps towards launch generally capture the design processes used by impact bonds identified in the literature. The remainder of this section summarises the evidence regarding approaches taken by impact bonds for steps 2-4, including the key challenges, preconditions and approaches leading to success (The 'Assess feasibility' step was covered in Chapter 2).

More detailed guidance on how to design and implement impact bonds is available in the [Technical Guidance](#) page of the GO Lab website.

Figure 3.1: Designing an impact bond



Step 2: Developing the model

Define cohort

In an impact bond, as with other forms of RBF, it is important to clearly define the target population. While this is also important for interventions funded through grants and fee-for-service arrangements, there is a danger in an impact bond that the payment structure will perversely incentivise organisations to prioritise the easiest to help; a clear cohort definition can overcome this (FitzGerald et al., 2019).

A common approach is to develop a set of inclusion/exclusion criteria designed to describe potential programme participants who have unmet needs but also could realistically capitalise on the benefits of the service and achieve outcomes. Some impact bonds, as found by Andreu (2019), exclude the most disadvantaged as it risks becoming too difficult for providers to achieve outcomes (and thus becomes too risky to attract external investment). Others, such as Educate Girls, design the incentive framework to compensate providers for the additional difficulty of achieving outcomes with more disadvantaged groups. Further detail on how this is achieved is provided in step 3.

Education projects funded through performance-based contracts often use allocation formulas to select relatively poor-performing schools to work with (Lee and Medina, 2018). In some cases, formulas specify that only schools in the bottom range of a socioeconomic or performance indicator are eligible to participate. In others, the weighting of the different indicators in the allocation formulas are adapted to benefit disadvantaged schools.

A key question for impact bonds when developing their inclusion/exclusion criteria is also at what level to sample (often referred to as the 'unit' of sampling). In the L&MIC education context, projects often sample at the school, community or district-level rather than at the individual level, perhaps due to the greater availability of data on schools and communities with which to make assessments. This is the case for all of the identified education projects in L&MICs except Educate Girls which, due to its focus on out-of-school girls, conducted a door-to-door survey to assess suitability for the service at the individual level (IDinsight, 2018).

Define outcomes metrics

A pivotal decision in the design of impact bonds, as with other forms of RBF, is the selection of outcome metrics tied to payments. Lee and Medina (2018) classify RBF outcomes metrics into three distinct types: level, piece rate, or rank. A **level-type** outcome metric will reward service providers for the number of students, teachers etc. hitting a specified level. A **piece-rate** outcome metric rewards relative improvements (that is, distance travelled) per individual. A **rank-type** metric rewards service providers for achieving a higher ranking relative to others. Table 3.1 below presents the outcome metrics used by the existing education impact bonds identified in L&MICs. Levels-type measures risk creating perverse incentives (i.e. service providers could prioritise those that are closest to the level) – as was found in the Youth Engagement Fund Evaluation (Ronicle and Smith, 2020); piece-rate measures that track the distance travelled for each individual, rather than the proportion achieving a certain level on a test, was preferred by *Educate Girls*, *Quality Education India* and the *SL Education Innovation Challenge* to incentivise service providers to focus on achieving improvements with all young people, rather than cherry-picking high performers.

Table 3.1: Outcome metrics used by education impact bonds

Impact bond	Outcome	Metric	Type
Educate Girls	Enrolment	Percentage of out-of-school girls (between age 7 and 14) enrolled in a school by the end of the third year	Level
	Learning	Difference between a baseline and endline score on a standardised test, at the start and end of the 3-year intervention	Piece-rate
Impact Bond Innovation Fund	Recruitment and retention	Proportion of service users recruited onto the programme per year	Level
	Attendance	Proportion of service users attending over 50% of the programme per year	Level
Quality Education India	Learning	Difference between a baseline and endline score on a standardised test, at the start and end of each school year	Piece-rate
Read First programme	Teacher/headteacher performance	Proportion of teachers/headteachers that achieve a minimum threshold level in a Fidelity Standard Test	Level
	Learning	Proportion of children that achieve a minimum threshold level on a standardised test	Level
SL Education Innovation Challenge	Learning	Difference between a baseline and endline score on a standardised test, at the end of each school year	Piece-rate
	Learning	Number of children that achieve minimum threshold levels on standardised tests	Level

Source: INDIGO Impact Bond dataset and information provided by the Education Outcomes Fund.



Challenge: avoiding tunnel vision while maintaining simplicity.

In the education sector, critics of RBF often argue that narrow learning and attainment metrics are not adequate proxies for educational quality or development (Ecorys, 2021b). A recent review of the literature on DIBs concluded that payments attached to learning outcomes leads to service providers focusing on preparing students for standardized tests (often referred to as ‘teaching to the test’) which only capture part of a student’s overall educational development (Alenda-Demoutiez, 2020). Concerns have also been raised regarding the validity of the learning outcomes reported by education impact bonds in high-income countries. For example, the *Utah Pre-K* impact bond faced criticism over the validity of the outcome measures used to determine their ‘risk level’, with little correlation shown between aptitude scores and the direct need for special education (Corporation for National and Community Service, 2016). Tse and Warner (2020) suggest using multiple outcome criteria to reduce the risk of distortion of results. However, lessons from the wider outcomes-based contracting evidence base from the health sector have shown that the introduction of additional outcomes measures can add complexity (Willhelm et al., 2016), presenting practical challenges associated with verifying outcomes and attracting investors.

It is widely believed that outcome simplicity is especially important for impact bonds relative to other forms of RBF, in part because impact bonds must also attract external investment. All of the identified L&MIC education projects selected only one or two outcomes metrics, to keep their models simple and practical. When consulted, key stakeholders involved in *Educate Girls* and *Quality Education India* reported that both projects considered including a wider set of metrics but chose not to: in *Educate Girls* this was to prioritise keeping the model simple as it was the first impact bond in a L&MIC, but also due to a lack of availability of a robust measurement approach to capture wider education, wellbeing and service user experience outcomes. The *Impact Bond Innovation Fund* attempted to develop a third outcome metric for early childhood development but dropped this; stakeholders consulted reported this was because it was too ambitious.

Define attribution approach

Not all of the outcomes that occur within a cohort will be attributable to the intervention – some would have been achieved anyway. Establishing attribution (that is, the causal link between the intervention and the outcomes changes observed) is therefore an important component of impact bond design. The most commonly used approaches for establishing attribution and the relative merits/drawbacks of each are presented in Table 3.2 below. As with other design choices, precisely which approach is most suitable depends on the priorities for the programme (i.e. a more rigorous approach will be selected if the priority is to understand ‘what works’) and the local context (i.e. a RCT may be necessary if data are not available to identify a comparison group).

Challenge: Establishing a baseline.

Evidence from studies into education impact bonds and wider outcomes-based contracts suggests that evaluating outcomes metrics can be more challenging in contexts with underdeveloped systems or capacity to rigorously assess outcomes (Social Research and Demonstration Corporation, 2017). A particular challenge concerns the gathering of baseline data on outcomes at the outset of the project. The outcome indicators selected for use in impact bond contracts are rarely measured by existing systems and therefore it is necessary to collect additional data in order to conduct any kind of counterfactual (that is, pre-post, quasi-experimental or experimental) analysis. *Educate Girls* did not initially plan to conduct a baseline but subsequently needed to due to poor national data availability. The *Sierra Leone Education Innovation Challenge*, when launched, will seek to overcome this challenge by incorporating a ‘year zero’ where payments are attached to inputs and activities for the first year of the project. This is to ensure that activity is funded while service providers gather baseline data and therefore, with a baseline established in year zero, outcomes in years one and two can be more rigorously attributed to the project.

In addition to the questions of *what* outcomes to measure and *how* to measure them, there is also the question of *who* measures. There are often concerns around models which enable service providers to directly measure the outcomes which then determine their levels of financial reward. All of the identified L&MIC education impact bonds, and many studied impact bonds in other sectors/contexts, include an independent outcome validator to measure outcomes on behalf of the service providers.

Table 3.2: Approaches to establishing attribution

Approach	Description	Pros	Cons	Practice examples from education impact bonds in L&MICs
Randomised Controlled Trial (RCT)	Randomly allocates participants to receive the intervention or not. Differences in outcomes (or treatment effects) are compared between groups.	Controls for known and unknown factors	Requires prospective randomisation, which is often unethical (because it involves randomly withholding an intervention). Sensitive to risk of the control group being affected by the intervention indirectly. Can be a challenge to achieve the aim of adaptation and flexibility in an impact bond within the fixed parameters required for a RCT.	<i>Educate Girls</i> measured learning gains through a RCT and enrolment of out-of-school girls through a pre-post comparison.
Quasi-experimental (QE) methods	Constructs a convincing comparator group that matches the intervention group on known relevant factors. Differences in outcomes are compared between groups. There are many possible designs.	Controls for known factors. Does not require prospective randomisation (often more feasible than RCT).	Does not control for unknown factors (more biased than RCT). Requires a baseline, rich data and specific timing conditions. Requires the 'treatment' intervention to be quite fixed, which is not always the case in an impact bond trying to encourage flexibility and adaptation.	<i>Quality Education India</i> used a quasi-experimental method comparing the assessment scores of students receiving the intervention to a constructed comparison group (expressed in standard deviation). The <i>SL Education Innovation Challenge</i> proposes to use a similar attribution approach.
Pre-post analysis	Outcomes before and after the intervention are compared.	Controls for some known factors. Does not require randomisation, rich data or specific timing conditions (often more feasible than RCT or QE method).	Does not control for all known nor unknown factors (more biased than RCT or QE method). Requires a baseline.	The <i>Impact Bond Innovation Fund</i> compared recruitment, retention and attendance rates of the intervention at baseline and follow-ups during implementation. Education SIB projects in the US ⁵ and <i>Girls Education Challenge</i> PBR projects also used a pre-post outcome attribution approach.
Simple ex-post verification	Outcomes after the intervention are assessed.	Does not require randomisation, rich data, specific timing conditions or a baseline (i.e. often more feasible than RCT, QE method or pre/post analysis).	Unable to control for known or unknown factors (more biased than RCT, QE method or pre/post analysis).	None of the education impact bonds in L&MICs used a simple ex-post verification approach to outcome attribution.

Source: Adapted from UK Central Government Guidance on evaluation, Magenta Book (HM Treasury, 2020). Colours reflect colour-coding in the report to show links to relevant education impact bonds.

Step 3: Build the business case

Building the business case involves developing the operating model for the project (including undertaking due diligence on potential service providers and developing a governance structure), pricing outcomes and modelling of the financial costs and benefits of the intervention. The latter is important to form the basis of the ‘investor proposition’ used to attract investment at stage 4.

Evidence from studies of *Educate Girls* and *Quality Education India* suggests that it is desirable to include service providers with proven track records and validated business models (Gallucci et al., 2019). The three service providers included in the *Quality Education India*, for example, were selected following a competitive process with over 70 applicants and an in-depth due diligence process considering track record alongside other criteria such as:

- ▶ Focusing on primary education for low-income populations
- ▶ Ability to scale
- ▶ Service costs
- ▶ In-house monitoring and evaluation capabilities
- ▶ Government relationships at the local level.

Conducting due diligence and competitively procuring service providers prior to seeking investment (stage 4) was considered key to the success of *Quality Education India*. However, the optimal impact bond sequencing and procurement approach is likely to vary depending on the context. For example, other projects have achieved success through procuring service providers and their investors concurrently. The Evaluation of the Life Chances Fund, undertaken by ICF Consulting (2021), discusses challenges around the procurement of impact bonds in further detail.

When it comes to **pricing outcomes**, a 2019 report produced by the Global Partnership for Results-Based Approaches (GPRBA) summarises a range of approaches that could be used – see Table 3.3 (there is not enough information available to describe how the outcomes were priced across the education impact bonds in L&MICs). It states that the specific method will depend on the outcome payer’s preferences and on a number of deal-specific factors, such as data availability, procurement strategies, and the level of sophistication of the service provider market. Further guidance in pricing outcomes is also available on the GO Lab website⁶.

Table 3.3: Approaches to pricing outcomes

Approach	Summary
Cost-plus pricing	A floor price that is determined by the current/expected costs of the product or service, plus a specific mark-up to the product or services’ unit cost. This effectively serves as the additional return to investors
Historical cost of outcomes	Outcome payers may be able to define prices based on the historical cost of delivering outcomes
Net savings	Outcome payers define outcome values based on the expected fiscal benefits (savings) that result from a specific project. This approach is more common in high-income countries
Quantified public value	Outcome values are fully or partially defined based on the public value of benefits that are created by the programme
Market-determined	Outcomes prices are suggested by service providers during a competitive bidding process

Source: Drawn from information in GPRBA (2019).

6 See: <https://golab.bsg.ox.ac.uk/toolkit/technical-guidance/pricing-outcomes/>

Step 4: Raise capital, contract and procure

Once the business case is developed, it is possible to approach investors again with a detailed proposition. Evidence from the studies of *Quality Education India* and *Educate Girls* suggests that a strong evidence base developed during stage 1 helps to achieve this. Moreover, investors interviewed as part of an in-depth review of the *Be the Change* impact bond in the UK commented that they analysed the evidence underpinning the interventions' theories of change in significant detail (ATQ Consultants and Ecorys, 2020). As the first early education SIB in the USA, the *Utah High Quality Preschool Programme* used a particularly high interest rate during the first cohort to compensate investors for taking on the risk of an outcomes-based contract within an untested context and sector, before reducing the interest rate for subsequent cohorts once the investor could be more confident in their investment (Tse and Warner, 2020). However, caution should be taken in offering excessively generous interest rates in outcomes-based contracts; the *Chicago Child-Parent Center Pay for Success Initiative* has been criticised for disproportionately compensating investors (Tse and Warner, 2020).

With investment secured, the final step is to develop and finalise the outcomes contract and service agreements with service providers. This can be done in various ways; some impact bonds involve direct contracts between the outcome payer(s) and service provider(s), whereas others involve contracts between these parties and an intermediary or Special Purpose Vehicle (SPV). Within these broad categories there is also significant variation. The optimal approach is not clear from the evidence examined (and is likely to depend on the context an impact bond operates within).



4.0 What have impact bonds achieved?

This section discusses the evidence regarding the achievements and harmful or unintended effects of impact bonds to date (November 2021), concentrating on those identified in L&MICs and focused on education.

This section draws on evidence from the studies identified through the systematic review, supplemented by evidence (that is, interview data and project information) gathered through consultations with key stakeholders involved in education impact bond projects in L&MICs.

The evaluation inherent within impact bonds means that there is often evidence available on the extent to which different impact bond projects achieved their outcomes targets. Table 4.1 below presents this evidence for the established education impact bonds in L&MICs for which results data was available as at November 2021. It shows that *Educate Girls*, the *Impact Bond Innovation Fund* and *Quality Education India* all achieved outcomes success in terms of service providers outperforming predetermined learning,

enrolment, and attendance targets. However, judging projects by this evidence of their performance against targets is potentially problematic, since different projects set targets according to different levels of ambition, and deploy different evaluation methods with varying levels of robustness to assess when outcomes are achieved. Such biases should be considered when interpreting the results presented in Table 4.1 below.

In terms of returns on investment, *Educate Girls* generated a 15% average annual return and the *Impact Bond Innovation Fund* a 14% average annual return. As of November 2021 return on investment figures for the remaining education impact bonds in L&MICs was not available.

Table 4.1: Outcomes achieved by education impact bonds

Impact bond	Outcome	Metric
Educate Girls	Enrolment	Exceeded targets: By the end of the 3-year project, 92% of identified out-of-school girls had been enrolled, exceeding targets by 16 percentage points (ID Insight 2018).
	Learning	Exceeded targets: RCT found that students in project schools gained additional learning levels compared to students in control schools (ID Insight, 2018).
Impact Bond Innovation Fund	Recruitment and retention	Exceeded targets according to project documentation shared by stakeholders consulted (no results published as yet).
	Attendance	Exceeded targets according to project documentation shared by stakeholders consulted (no results published as yet).
Quality Education India	Learning	Improved learning outcomes observed for two years in a row: All the service providers who were evaluated in Year 2 exceeded learning targets and recorded a better performance than comparison groups (Ecorys, 2021b).

More widely, evidence suggests that impact bond projects in other contexts and sectors have been generally successful in terms of achieving agreed-upon outcomes. A 2016 review of the earlier impact bonds in the US (referred to as Pay-for-Success programmes) found that four of the five projects with published results achieved success in these terms (Non-profit Finance Fund, 2019). Moreover, a 2016 evaluation conducted by SRI Education (Gaylor et al, 2016) found that the Chicago Child Parent centres programme achieved above national trends for school readiness amongst children from low-income backgrounds.

Whilst the progress of these impact bonds against their outcome targets is encouraging, this does not necessarily convey the success of the *impact bond mechanism*; these projects may simply deliver effective interventions. A crucial aspect of evaluating impact bonds is, therefore, to separate the effect of the bond as a contracting mechanism (that is, the impact bond effects) from the effect of the intervention (the intervention achievements). However, a systematic search of the literature (described in full in Annex 3) yielded no quantitative research convincingly investigating the effect of education impact bonds compared to other commissioning mechanisms. Part of this is related to the lack of impact bonds launched to date alongside comparable interventions funded through other contracting approaches; some studies have attempted to isolate the impact bond effect but then found it was impossible due to the absence of a suitable comparator.

A 2010 study of the *Foundation Assisted Schools* programme in Pakistan is a rare example of research which convincingly managed to explore the effect of an outcomes-based contract (though not an impact bond). In this Public Private Partnership, a range of incentive structures were at play for low-cost private schools. One high-powered school-level outcomes contract operated by ejecting schools from the programme and removing their subsidy if they failed to achieve a minimum pass rate in two consecutive, independently administered tests. An innovative regression discontinuity design showed that this outcome-based incentive – which compared the threat of programme exit on schools that barely failed the test for the first time to those which just passed – induced large learning gains. The authors concluded that the large change in learning was likely attributable to this accountability pressure (Barrera-Osorio and Raju, 2010).

Some more recent studies have looked to examine the impact bond effect qualitatively. For example, the 2018-2021 Evaluation of the FCDO DIBs pilot programme compared four impact bonds (including *Quality Education India*)

against a set of similar non-impact-bond-funded projects, to examine the existence of a set of pre-determined ‘positive and negative impact bond effects’, which were derived from prior research and conventional wisdom on how impact bonds are *supposed* to affect service delivery (Ecorys, 2019). This sub-section provides an overview of where these effects have been detected across the body of literature on outcomes-based contracts, with a focus on education impact bond projects in L&MICs.

Supporting wider set of service providers to deliver PBR contracts

As set out in Section 2.1, the main argument for using an impact bond over standard PBR contracts is that the impact bond enables a broader set of organisations to deliver PBR contracts – most notably those that would not be able to take on the financial risk of a PBR contract. The FCDO DIBs pilot programme found that, in three of the four impact bonds examined, service providers noted it was unlikely they would have participated in the project if they had been required to provide the upfront capital to deliver the intervention (Ecorys, 2019); therefore the impact bond mechanism achieved its aim of supporting a wider set of service providers to deliver PBR contracts.

Shifts focus to outcomes

A common theme within the body of evidence on impact bonds is that they lead to a greater focus on outcomes. The four DIBs studied by the 2021 Evaluation of the FCDO DIBs pilot programme were found to have contributed to a shift in focus on outcomes. However, this is also true of other forms of RBF; a review of PBR in international development found that other forms of RBF in education (in this case performance-based contracts) successfully increased a focus on learning outcomes over the decade 2008-2018; NGOs acting as service providers in the studied programmes reported being highly motivated by the monetary incentive to achieve outcomes (Clist, 2018).

Drives performance management

Many qualitative studies of impact bonds report that they lead to stronger evaluation, learning and performance management approaches. The FCDO evaluation, for example, found that the four DIBs studied introduced stronger measurement approaches and there was more regular scrutiny of performance, compared to similar grant-funded projects (Ecorys, 2019). Similarly, the evaluation of the *Impact Bond Innovation Fund* conducted by Intellidex (2021a) found that the service provider improved their monitoring and evaluation systems via the intermediary involved in the project.

Service providers deliver greater adaptive management and course correction

Numerous qualitative studies of impact bonds conclude that service providers were given greater flexibility to adapt their intervention models and implemented many changes to align their service delivery to the needs of service users. For example, *Educate Girls* service providers rolled out a new curriculum and, after initially finding it more difficult to get older girls back into school, adjusted their techniques and efforts to focus more on this group, conducting additional home visits for persistent absentees (Saldinger, 2017; Gustafsson-Wright and Boggild-Jones, 2018). Moreover, service providers involved in an impact bond in Colombia focused on workforce development offered evening and weekend classes to accommodate trainees who had daytime obligations (Instiglio, 2018a). Impact bonds therefore appear to give service providers flexibility to use funds in ways that reflect their ongoing learning about the needs of their cohorts and practicalities of service delivery.

Greater collaboration between stakeholders

Many qualitative studies of impact bonds report evidence of them fostering more effective collaboration between stakeholders. Stakeholders interviewed as part of the 2nd wave of the evaluation of the FCDO DIBs pilot programme (Ecorys, 2021a) reported that the four studied DIBs fostered new and strengthened existing working relationships. *Quality Education India* stakeholders, in particular, commented on the positive effects of the impact bond on collaboration and this sentiment was also shared by *Educate Girls* stakeholders (Ibid.).

Unintended effects

Overall, there is weak evidence of education impact bonds in L&MICs having unintended effects such as perverse incentives, tunnel vision and lower staff morale. Few qualitative studies of education impact bonds report evidence of 'teaching to the test' or cherry-picking, but the evidence of unintended effects is more mixed in other sectors (Results for Development Institute, 2016b). This could be because the *Educate Girls*, *Quality Education India* and the *Impact Bond Innovation Fund* projects all made considered efforts to reduce the risks of gaming through their design choices. However, the minimal number of studies into impact bonds in the education sector in L&MICs is likely to have limited the degree to which the unintended effects of projects are captured.

4.1 At what cost?

This sub-section summarises the evidence on the costs of impact bonds relative to other forms of contracting, drawing on evidence from the studies identified through the systematic review and supplemented by evidence gathered through consultations with key stakeholders involved in education impact bond projects in L&MICs.

Several qualitative studies on impact bonds have found evidence of additional costs to design and implement impact bonds (Gustafsson-Wright et al., 2017; Canning, 2017). Compared to if the projects had been funded through a fee-for-service contract, the four DIBs studied as part of the evaluation of the FCDO DIBs pilot programme were found to have additional costs of approximately \$1.2 million per project (ranging individually from \$570,000 to just over \$2 million). This accounts for around an additional 10% on project budgets (average project budget \$11.6m). Approximately \$400,000 of these additional costs per project were for designing and setting up the DIBs, which the study attributed to the additional legal and financial services necessary (Ecorys, 2019a). In addition to this, there were median maximum potential investor returns of \$750,000 (ranging from \$649,333 to \$6,464,000). Table 4.2 provides more information on the additional costs of setting up the DIBs.

Costs for the *Impact Bond Innovation Fund* were more expensive than what outcomes payers had paid for previously in a similar input-based programme. In other words, 'they paid more to reach fewer children' (Intellidex, 2021b). The qualitative evidence regarding additional costs of impact bonds during implementation is more mixed; the *Bonds4Jobs* impact bond incurred higher-than-expected costs during implementation and Intellidex (2021b) attributed this to the unbudgeted costs of managing the project's various stakeholders. On the other hand, the evaluation of the FCDO DIBs pilot programme found that costs during implementation stage were broadly on par with traditional funding models (Ecorys, 2019a).

In any case, many of the factors that appear to drive up costs for impact bonds are also common in other forms of RBF (for example, the requirement for more intensive monitoring and evaluation). Although there is evidence that impact bonds have additional costs, whether they are more cost-effective (i.e. the additional costs are justified due to their benefits) is inconclusive. This evidence gap is due largely to the limited number of impact bonds implemented alongside comparable projects contracted through other mechanisms.

Table 4.2: Additional costs of setting up and implementing impact bonds

Cost categories	Costs (including actual, budgeted, in-kind and pro-bono)	Costs (including actual, budgeted, in-kind and pro-bono)
Design and set up (estimated costs already incurred)		
Staff time set up	Where estimated, this ranged from USD 150,000 to USD 490,000. Otherwise, stakeholders described the significant time commitment e.g. staff time over two years.	Generally funded by organisations (investors, outcome funders, service providers) providing staff time 'in-kind', as well as advisors and intermediaries providing pro-bono time. In some cases funded by a separate grant, e.g. ICRC received a grant for the set up phase from the Government of Netherlands.
External advice on contract design	Three out of the four DIBs estimated to be just over USD 250,000, while one DIB estimated this to be USD 687,000.	Paid for by the outcome funder or funded by a separate grant except for QEI where Investor funded these costs.
Legal and financial advice	Not all these costs were included in budgets. Where costs had been captured, these ranged from USD 50,000 to USD 120,000. However, in most cases this underestimated the full cost as not all the pro-bono hours had been recorded.	In general, these were pro bono. Where services were procured rather than provided pro bono, the costs were funded by the outcome funder or funded by a separate grant.
Implementation (projected costs, not fully incurred)		
Contract management costs	These costs were reflected in budgets and ranged from between USD 52,500 to USD 670,000	Paid for by the outcome funder or funded by a separate grant. In one case performance management costs are (QEI) co-funded by investor.
Verification	These tended to be contracts with third parties but varied in size with two DIBs using validated administration data having lower verification costs e.g. around USD 50k and two with larger costs around USD 500-600k (involving experimental / quasi-experimental approaches).	Paid for by the outcome funder or funded by a separate grant.
Investment vehicle related costs e.g. Escrow and legal fees	The types of costs under this category varied between DIBs depending on how they have been set up. Total costs under this category range from USD 30k to USD 105k.	Paid for by the outcome funder or funded by a separate grant.
Maximum payments to investors (projected costs, not yet incurred)		
Maximum payments	These ranged from USD 650k to USD 6.4m.	Paid for by the outcome funder.

Source: Cheaper by the Dozen: Reducing Costs in Development Impact Bonds. Ecorys, 2019a.

5.0 Conclusions

This report has examined the evidence base of impact bonds used in education in L&MICs. This chapter draws together the key points and considers the implications and opportunities for international development agencies and financial institutions seeking to support the use of impact bonds in L&MICs.

Why consider an impact bond?

Impact bonds are newer and less-established in development contexts than other forms of RBF, but they offer potential value over performance-based contracts and PBR because they shield the service providers in these arrangements from some financial risk. This in turn can widen the pool of service providers that can be involved in RBF, and also carry the potential to foster more risk-taking, experimentation and adaptation in delivering performance-based contracts (provided investors have a reasonable risk-appetite).

International development agencies and financial institutions seeking to improve the effectiveness of aid should therefore consider contracting interventions through impact bond mechanisms when payments work best when attached to outcomes; when outcome payments are best made at the service-delivery level; and when service providers are unable to bear all the financial risk of non-performance.



Where are impact bonds applicable?

Setting up and launching an impact bond can be greatly aided by: sufficient buy-in from stakeholders; a legal and financial framework conducive to impact bond arrangements; and availability of data necessary to develop a robust business case. There should also be sufficient capacity within the local markets of service providers and intermediary organisations to deliver effectively and meet the specific demands of impact bonds. Although these conditions may not always be present in L&MICs, there is scope to develop them through effective stakeholder engagement, capacity building and data collection prior to launch.

International development agencies and financial institutions could be well-placed to leverage their technical knowledge, convening power and established links to partner governments in L&MICs to plug some of these capacity and data/evidence gaps, thus supporting the use of impact bonds in L&MICs. International development agencies and financial institutions could also support the use of impact bonds in L&MICs by generating accessible knowledge and technical materials on 'best practice' approaches to key design choices such as cohort definition, outcome selection, attribution and pricing, and contracting.

What have impact bonds achieved?

Education impact bonds in L&MICs have succeeded in terms of service providers largely achieving participation and learning outcomes to the extent specified by the outcome payers. However, it is unclear whether these outcomes would also have been achieved had the interventions been funded through fee-for-service or PBR contracts, due to the lack of empirical research convincingly isolating the effect of the impact bond mechanism from that of the intervention as a whole. Qualitative evidence suggests that impact bonds could shift the focus to outcomes, drive performance management, support adaptive management and lead to greater collaboration. Impact bonds appear to cost more in absolute terms, mainly because of the additional staff time and consultancy required to design and set them up. However, measuring cost-effectiveness is complicated by the limited number of impact bonds and the absence of comparable outcomes performance data for conventionally funded projects; therefore evidence on their cost-effectiveness is inconclusive.

International development agencies and financial institutions could plug this crucial evidence gap by funding more experimental programmes which involve impact bond and comparable non-impact bond projects in L&MICs.

Annex 1: Glossary

Below we list definitions of terms used within the report. The sources for these definitions are noted below, and the source is listed at the end of each definition:

- ▶ Global Partnership for Results Based Aid
- ▶ National Audit Office⁷
- ▶ GO Lab⁸
- ▶ Other source (source listed at end of definition)
- ▶ Own definition

Actual investment: Actual investment is the total amount that has been invested in the social outcomes project to date. Note that this definition does not include any recycled outcome payments (that is, financial return that is then re-invested into the project). (own definition)

Attribution: Ability to link a specified intervention with the achievement of a specified outcome. (NAO)

Baseline: The level of performance measured before the intervention begins, against which the intervention's impact can be assessed. (NAO)

Cohort: Group of people identified to receive the intervention. (NAO)

Committed investment: Committed investment is the amount of investment contractually agreed upfront for a social outcomes contract. Note that this should not include any recycled outcome payments. Due to some contractual flexibilities, it is often more applicable to provide a range, minimum to maximum, for the committed investment. (adapted from GO Lab)

Fee-for-service contracts: Payment based on service levels or outputs delivered, rather than outcomes. (NAO)

Gaming: where an individual or an organisation behaves opportunistically, deciding to choose a path that benefits themselves over the interests of their clients. There are different types of gaming, such as cherry-picking: (adapted from GO Lab)

- ▶ **Cherry-picking** (also referred to as '**creaming**): A perverse incentive whereby service providers, investors or intermediaries select beneficiaries that are more likely to achieve the expected outcomes and leave outside the cohort the most challenging cases. (GO Lab)

Intermediary: Impact bonds are often supported by experts that provide specific advice. These are typically all referred to as "intermediaries" but encompass at least four quite different roles:

- ▶ A consultant who supports the commissioner to develop a business case for the project that secures internal and external approval to proceed to procure and implement the new service.
- ▶ A social investment fund manager who manages a fund [and sometimes project performance] on behalf of social investors and manage the project with commissioners.
- ▶ A performance management expert (sometimes referred to as an evaluator) works together with service providers, reporting the performance of the impact bond and providing an independent source of information and scrutiny to investors and the commissioner. This might be required if there is a perceived conflict of interest in the service provider measuring and reporting on their own performance, or if the service provider lacks the skill to deliver the standard of reporting required by stakeholders.
- ▶ A special purpose vehicle who brings together other parties in a contractual relationship and holds the contract directly with the commissioner. (GO Lab)

7 NAO (2015)

8 <https://golab.bsg.ox.ac.uk/knowledge-bank/glossary/>

Internal rate of return (IRR): a way of converting the total returns on an investment into a percentage rate. The rate is calculated over the length of the investment and varies according to cash flow, impacting how quickly and soon payments are made. IRR calculations are complicated, but the earlier the money is returned the higher the IRR, because IRR takes account of the 'cost of money'. (own definition)

Investors: provide arrangements to finance the upfront delivery costs of an impact bond project. They get repaid either fully or in part depending on whether outcomes are achieved. (own definition, adapted from GO Lab)

Outcome: A result or change experienced by a person, family or community, for example improved parenting. (NAO)

Outcomes-based contracts: a mechanism whereby service providers are contracted based on the achievement of outcomes. This can entail tying outcomes into the contract and/or linking payments to the achievement of outcomes. It is the broader umbrella of contracts within which social impact bonds sit. They are broader than impact bonds because they do not necessarily require external investment. (GO Lab)

Outcomes funds: Outcome funds pool capital from one or more funders to pay for a set of pre-defined outcomes. Outcome funds allow the commissioning of multiple impact bonds under one structure. Payments from the outcomes fund only occur if specific criteria agreed ex-ante by the funders are met. (GO Lab)

Outcomes-payers: identify the unmet needs and express a 'willingness to pay for the achievement of specific social or development outcomes. (own definition, adapted from GO Lab)

Perverse incentives: An incentive to act in a manner that goes against the desired outcome or aims of a service or programme. (GO Lab)

Procurement: Acquisition of goods and services from third party suppliers under legally binding contractual terms. Public sector procurement is normally achieved through competition and is conducted in line with each government's policy and regulation. In impact bonds, the procurement process identifies the partners, namely the services provider(s) to deliver the selected intervention. (GO Lab)

Results-based financing (RBF): an umbrella term referring to any program or intervention that provides rewards to individuals or institutions after the credible verification of an achieved result. (Lee & Medina, 2018⁹). Includes:

- ▶ **Performance-based aid:** an RBF instrument which involves a transfer of funds between a bi/multilateral donor to a national government. (GPRBA)
 - ▷ **Performance-based loans:** a type of performance-based aid, financed through a loan. (GPRBA)
 - ▷ **Cash-on-delivery aid:** a type of performance-based aid, financed through a grant. (GPRBA)
- ▶ **Performance-based transfers:** involve local governments receiving grants conditioned on certain results. (GPRBA)
- ▶ **Performance-based contracts** (also referred to as payments-by-results [PBR]): an umbrella term for financing agreements in which payments to service providers are based on results (adapted from GPRBA).
- ▶ **Impact bonds:** impact bonds are outcome-based contracts that incorporate the use of private funding from investors to cover the upfront capital required for a service provider to set up and deliver a service. The service is set out to achieve measurable outcomes established by the commissioning authority (or outcome payer) and the investor is repaid only if these outcomes are achieved. (GO Lab)
 - ▷ **Development impact bonds (DIBs):** impact bonds in which the outcome payer is an external donor - an aid agency of a government or multilateral agency, or a philanthropic organisation. (GO Lab)
- ▶ **Conditional Cash Transfers:** involves transferring cash to eligible individuals or households when they complete defined actions (such as enrolling their children in schools, getting regular medical check-ups, or taking nutritional supplements). (GPRBA)
- ▶ **Service providers:** offer a service or intervention designed to meet the needs of those who receive it and achieve outcomes. (own definition, adapted from GO Lab)

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Annex 3: Methodology

Stakeholder workshops

The study began in October 2021 with a scoping phase of the study. The research team held an exploratory on-line workshop with World Bank stakeholders to inform the structure of the report and contextualise the findings of the analysis. Workshop attendees included World Bank stakeholders, and team leaders and practitioners involved

in launching impact bonds in Palestine, Ghana, Uzbekistan and Cameroon. The scoping phase was also informed by interviews with impact bond and RBF experts. The research team used the workshop and expert interviews to further enhance the **research framework** developed during the project bidding stage. This is shown in Figure A3.1 below.

Table A3:1: Research framework

	Evidence sources				
	Systematic literature review	Previous/ongoing Deliver Ed research	Stakeholder workshops & expert interviews	Additional document review	Key informant interviews
What is an impact bond?					
What are the main ways to contract an aid intervention and how do they differ?	X				
What are the main RBF instruments used to contract aid interventions and how do they differ?		X	X		
What are IBs and how do they differ from other RBF instruments used to contract aid interventions (PBA, PBT, PBC)?		X	X		
In what geographies/sectors have IBs been used to contract aid interventions and by which donors?	X				
What key stakeholders are involved in IBs used to deliver aid interventions in developing countries?	X				
What sources of finance have been made available for education IBs and what are the main motivations of financiers to invest?	X				
When and how did IBs emerge as a vehicle for education provision in developing countries?	X				
What is the potential for impact bonds?					
What are the relative merits and trade-offs of IBs compared to other RBF instruments (PBA, PBT, PBC)?		X	X	X	X

	Evidence sources				
	Systematic literature review	Previous/ongoing Deliver Ed research	Stakeholder workshops & expert interviews	Additional document review	Key informant interviews
Which barriers to education provision or development assistance are or could IBs be used to address compared to other RBF instruments (PBA, PBT, PBC)?		X	X	X	X
Where are impact bonds applicable?					
What are the prerequisites for effective RBF implementation and to what extent are they also required for IBs?		X	X	X	X
How should stakeholders (including from the World Bank and other IFIs) assess the applicability of an IB to a given intervention context?	X			X	X
What are the successes and challenges of implementing impact bonds?					
What are the key challenges stakeholders (including from the World Bank and other IFIs) have experienced when implementing IBs and how can these challenges be mitigated?	X		X	X	X
What are the key factors critical to the successful launch and delivery of education IBs?	X		X	X	X
How are impact bonds designed and implemented?					
What are the key differences between different education IBs that stakeholders (including from the World Bank and other IFIs) should consider?	X		X	X	X
How should stakeholders (including from the World Bank and other IFIs) approach critical IB design and implementation choices? (e.g. commissioning, outcome selection, contracting)				X	X
What have impact bonds achieved (what is the 'IB' effect)?					
Which IB effects materialised across previous education IBs and, if available, how do they compare to the effects of other RBF instruments (PBA, PBT, PBC)?				X	X
Effects on service delivery (e.g. adaptation to an educational protocol, 'flexibility' or personalisation of education services, testing and learning around an intervention)				X	X

	Evidence sources				
	Systematic literature review	Previous/ ongoing Deliver Ed research	Stakeholder workshops & expert interviews	Additional document review	Key informant interviews
Effects on person-level educational outcomes (e.g. on enrolment, attendance, transition, learning/ attainment... etc)				X	X
Effects on resource use				X	X
Effects on participant satisfaction (e.g. pupil, teachers) and provider satisfaction (e.g. education NGOs)				X	X
Effect on management information (MI) systems				X	X
Effect on equity considerations (e.g. differential effects on girls' learning/ attainment compared to boys)				X	X
Effect on relationships between contracted parties (e.g. between donor, provider, educational setting)				X	X
Effect on the education 'ecosystem' (e.g. ability to track and pay for outcomes in other educational settings, other education agencies reforming processes)				X	X
Effect on changes in provider performance or culture (e.g. achievement of 'KPIs' for providers, wider culture change around outcomes-focus)				X	X
Unintended effects (e.g. motivating teaching to the test and other unwanted distortions, cherry-picking/ cream-skimming, gaming)				X	X
What are the additional costs of IBs?					
How much do IBs cost to launch and deliver and, if available, how do these costs compare to other RBF instruments (PBA, PBT, PBC)?				X	X
What are the key cost drivers of IBs relative to other RBF instruments (PBA, PBT, PBC)?				X	X
What happens after impact bonds?					
To what extent are education results achieved by IBs sustained?				X	X
In what ways have IBs been scaled or replicated and to what degree of success?				X	X

Landscape mapping

To map the landscape of impact bonds in education, a review of existing education impact bonds was conducted by extracting and interpreting relevant data from the INDIGO dataset. INDIGO¹⁰ is the most comprehensive open access global dataset of impact bonds. The INDIGO impact bond dataset is populated by the impact bond community and

collates data from a range of sources including internationally recognised datasets. At the time of writing this dataset included 227 impact bonds (November 2021). Table A3.2 below presents the impact bonds extracted from the dataset which had an education outcome as a primary focus.

Table A3.2: Education impact bonds

GO Lab INDIGO ID Code	Impact Bond	Country of Implementation
INDIGO-POJ-00017	Mother Teresa Middle School	Canada
INDIGO-POJ-00026	Article 1 CIS	France
INDIGO-POJ-00032	Integrativer Schulcampus Pestalozzischule (The Integrative Campus Pestalozzi School)	Germany
INDIGO-POJ-00035	Educate Girls	India
INDIGO-POJ-00036	Quality Education India Development Impact Bond	India
INDIGO-POJ-00039	Aluma SIB	Israel
INDIGO-POJ-00063	Academia de Codigo Junior (Junior Code Academy)	Portugal
INDIGO-POJ-00066	Sapie (Alentejo)	Portugal
INDIGO-POJ-00067	Sapie (Centro)	Portugal
INDIGO-POJ-00068	Sapie (Norte)	Portugal
INDIGO-POJ-00069	Spot Evora	Portugal
INDIGO-POJ-00070	Aprender e Ensinar Matematica Com a Khan Academy (Centro)	Portugal
INDIGO-POJ-00071	Aprender e Ensinar Matematica Com a Khan Academy (Norte)	Portugal
INDIGO-POJ-00072	Programa Integrado de Promocao da Literacia (Integrated Literacy Programme)	Portugal
INDIGO-POJ-00076	Seoul Welfare Facilities Children Education SIB	Korea
INDIGO-POJ-00077	Norrkåping SIB	Sweden
INDIGO-POJ-00079	Education Improvement Project in the Republic of Sakha (Yakutia)	Russia
INDIGO-POJ-00082	Utah High Quality Preschool Program	USA
INDIGO-POJ-00086	Chicago Child-Parent Center PFS Initiative	USA
INDIGO-POJ-01027	HCT Independent Travel Training SIB (Norfolk)	UK

GO Lab INDIGO ID Code	Impact Bond	Country of Implementation
INDIGO-POJ-0128	HCT Independent Travel Training SIB (Surrey)	UK
INDIGO-POJ-0160	HCT Travel Training (Lambeth)	UK
INDIGO-POJ-0162	West London Zone	UK
INDIGO-POJ-0168	Big Picture Learning in Doncaster	UK
INDIGO-POJ-0174	ParentChild+	UK
INDIGO-POJ-0184	West London Zone, placed-based support for children and young people: scale-up	UK
INDIGO-POJ-0202	Living Learning (Victoria)	Australia
INDIGO-POJ-0206	Gamezone Lisboa	Portugal
INDIGO-POJ-0209	UBBU: Learn to code	Portugal
INDIGO-POJ-0219	Side by side	Australia

Source: INDIGO Impact Bond dataset. Accessed November 2021.

Systematic literature review

To critically appraise and review the evidence base for impact bonds and outcomes-based contracting more broadly in the education sector, the research team identified and extracted published studies from an ongoing, global, mixed-methods systematic review of outcomes-based contracting which is currently being prepared by Ecorys and GO Lab. To be included in the systematic review, academic and grey literature such as reports, policy papers, white papers and other non-academically published documents were reviewed by a skilled research team and assessed against stringent inclusion and exclusion criteria. To be included, studies had to:

- ▶ be underpinned by empirical evidence;
- ▶ feature an outcomes-based contract with an independent, non-statutory contracted agent (i.e., the organisation incentivised to achieve outcomes); and
- ▶ include a sufficient level of detail about the outcomes contract to be able to foster meaningful conclusions about the evidence.

The research methods of each study were then critically quality appraised by the research team. This appraisal was informed by the widely adopted 'Critical Appraisal Skills Programme' Checklists¹¹. We do not exclude any studies on the basis of the critical appraisal but use this assessment to add qualifiers to the interpretation of evidence. The full systematic review protocol¹² is publicly available on the *Social Science Protocols* journal, for further detail.

The research team then used key search terms to identify literature from the systematic review relevant to this policy-specific review of education. Search terms (for example, school; education; teaching) included truncations (e.g. teach*), wildcards and language translations. This yielded 28 articles specific to outcomes contracting in education which the team analysed for this report. The team then applied the research framework from Table A3.1 to systematically review the articles. The team coded all studies identified through the systematic review to identify: the type of contracting mechanism used (classified according to the Principal-Agent framework¹³); the use case for the chosen financing mechanism; pre-conditions to development and launch of each project;

11 <https://casp-uk.net/casp-tools-checklists/>

12 Picker, V., Carter, E., Airolidi, M., Ronicle, J., Wooldridge, R., Llewellyn, J., Monk, L., Stone, S., Gibson, M., Rosenbach, F. and Hameed, T. (2021) 'Social Outcomes Contracting (SOC) in Social Programmes and Public Services: A Mixed-Methods Systematic Review Protocol', *Social Science Protocols*, 4:1-21. [Available online.](#)

13 Clist & Verschoor (2014)



key design and implementation choices; successes and challenges; effects associated with the specific financing mechanism; costs associated with the financing mechanism; and sustainability.

In addition to the systematic review process, we also reviewed other highly relevant publications which did not meet our inclusion and exclusion criteria to inform this report. This included an additional 15 papers which were excluded from the systematic review due to not meeting the requirement for making an empirical contribution. These were often practitioner guides and frameworks on the use of outcomes-based contracting and impact bonds. These guides, reports, reviews and publications informed the structure of this review of impact bonds in education, including the analysis framework and structure of outputs, and supported the interpretation of findings from the analysis of literature obtained through the systematic review process.

Key Informant Interviews

Finally, the team conducted five interviews with key stakeholders involved in the education impact bonds launched in L&MICs to date. These key informant interviews enabled a deeper dive into existing impact bond projects and filled gaps in the evidence base presented by the systematic review of the literature. All interviews took place in November-December 2021 and were conducted remotely. Interviewees included:

- ▶ UK Director, Educate Girls
- ▶ Social Finance Manager, British Asian Trust
- ▶ Co-founder and Chief Programmes Officer, Education Outcomes Fund
- ▶ Impact and Performance Manager, Volta Capital
- ▶ Director, Government Agent Office VEB.RF.



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