Center for Global Development

SOCIAL FINANCE

# DEVELOPMENT IMPACT BOND WORKING GROUP REPORT

CONSULTATION DRAFT

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# INNOVATIVE FINANCING MECHANISMS SUCH AS SOCIAL IMPACT BONDS STAND TO IMPROVE THE EFFICIENCY OF DEVELOPMENT ASSISTANCE IN THE COMING YEARS – AND THAT IS WHAT HAS BROUGHT US TO THE WORKING GROUP. AS A VITAL COMPONENT OF THE IMPACT INVESTING SECTOR, OUTCOMES-BASED FINANCE CAN BE A POWERFUL MEANS OF ENHANCING THE EFFECTIVENESS OF AID AND DEVELOPMENT FINANCE

**Elizabeth Littlefield**, May 2012

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of suggestions and comments; it should not be considered as the final conclusion of the Working Group or its individual members.

## ACKNOWLEDGEMENTS

The Center for Global Development extends its thanks to its board of directors and funders for contributions in support of this work. Social Finance would also like to extend its thanks to the Omidyar Network and Rockefeller Foundation for their generous financial support which enables this work to happen.

We would also like to thank Working Group members for their generous contributions of time, insight and expertise over the course of three challenging and engaging meetings.

The co-chairs and members would like to thank the many individuals and organisations that have participated in meetings and discussions about these ideas, and so contributed to the thinking of the Working Group. We are also grateful to the following organisations for their support in developing the DIB case studies:

# Foreword

The way development is financed is rapidly changing. Aid now fits into a much richer and broader context of flows that are channelled to developing countries: remittances and private investment, often supported by growing development finance institutions, are now more significant than aid. The composition of aid itself is changing, with increasing flows from 'new' donors such as China and private philanthropy becoming more important. As economies grow and tax collection improves, governments – even in the world's poorest countries – are becoming less dependent on aid and are increasingly using domestic revenues to finance government spending.

As the context changes, so too does the role of aid. The challenge for traditional providers of aid is to determine how aid can be used to catalyse and complement these other flows, and the challenge for all actors on the development scene is to ensure that access to services is within everyone's reach, particularly among society's poorest and most vulnerable.

Development Impact Bonds (DIBs) – a new platform for development cooperation – have enormous potential to bring together the private sector, civil society organisations, governments and donors, in a way that captures and complements the best contributions of each player to achieve social outcomes. In a DIB, public, private and non-profit actors come together and agree on what they want to achieve and a method for measuring success. Typically, but not always, an intermediary organisation will play the role of coordinating these actors: investors, who provide funds to roll out or scale up services; service providers, who work to deliver outcomes; and outcome funders, primarily public sector agencies from developing or donor countries who pay for results achieved. Outcome payments are used to pay investors back with a premium, so that if interventions successfully achieve outcomes, the returns are social as well as financial. This structure allows each player to make a distinct contribution to the achievement of a desired social outcome more effectively than if it were acting alone.

Development Impact Bonds are being explored at a time when tightening public budgets and the shortcomings of traditional funding models have fuelled a movement towards results-based approaches. The last decade has seen donor money shift towards newer, more adaptive and more flexible results-based mechanisms such as Advance Market Commitments and GAVI Immunization Support Services. However, operational, financial and political constraints have limited their widespread adoption. Development Impact Bonds are an innovative instrument that could help overcome some of those obstacles.

We hope that this report will stimulate a dialogue among donors, partner governments, investors and service providers to consider and test the opportunities that these rich collaborations might bring.

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# Summary

As domestic revenues and private financial flows to developing countries grow, the relative importance of official aid is diminishing. Traditional donors, once dominant players, are now part of a much broader group that provides financing to developing countries, including emerging donors, philanthropic organisations and private investors. Within this group are an emerging class of impact investors, who are motivated by both social and financial returns. Growth of the impact investment market could provide not only a new way of funding development but also new ideas and private sector expertise that could help drive faster development progress.

Furthermore, the growing complexity of today's development problems requires new ways of doing business. Traditional, publicly funded social programmes can limit risk-taking and innovation by design: they are often pre-occupied with tracking inputs and processes and, because they prescribe strategies at the outset, they generally leave little room for learning and experimentation. What's more, these rigid approaches do not provide adequate incentives to focus on outcomes or even to collect information about them. Donors now need to catalyse and complement other financial flows and meet the growing demand to demonstrate effectiveness against rigorously defined and measured outcomes, in ways which respect the complexity of delivery and the need for adaptation and flexibility.

**Development Impact Bonds (DIBs)** respond to both of these imperatives. They use private investment flows to provide upfront risk capital for development programmes, only calling on donor funding to repay that capital (plus a potential return) once clearly defined and measured development outcomes are achieved.

Under a DIB, all interested parties agree a desired social outcome and a metric for measuring success. Private investors bank-roll a programme to achieve the outcomes. The programme itself is carried out by specialised service providers, and investors are paid back by an outcome funder (usually a donor agency) if – and only if – independently verified evidence shows that the programme has been successful. The greater the measured success of the programme, the greater the return to investors, up to a cap. Typically, an intermediary organisation will coordinate between investors, the outcome funder, and service

providers, representing the parties not in the room and negotiating an agreement that fits the needs of all.

DIBs have several advantages over existing funding mechanisms:

- DIBs transform social problems into "investible" opportunities, and create incentives for investors to put in place the necessary feedback loops, data collection and performance management systems required to achieve desired outcomes, resulting in a bottom-up, client-centred, and generally more effective, approach.
- DIBs could help to shift more aid to results-based contracting by overcoming some of the obstacles associated with existing results-based approaches. By having investors provide working capital - and assume risk - for interventions expected to lead to improved social outcomes, DIBs could attract funding for interventions that donor agencies and governments might not be able to fund under existing models.

DIBs hold enormous potential as a new type of outcomes-based contract that can bring together the private sector, civil society organisations, governments and donors, in a way that captures and complements the strengths which each player can bring to achieve development outcomes, and buttressing their respective weaknesses. Developing DIBs will at first take time, resources and new skills and expertise. To ensure that initial DIB pilots get off the ground and a market for this approach gradually begins to form, the Working Group makes the following general recommendations:

- Donors should establish a **DIB Outcomes Fund** and investors should establish **DIB Investment Funds**, which would enable these actors to share risks and **pilot a range of DIB models** (see p. 8).
- DIB pilots should be **evaluated rigorously** and a group of donors and philanthropic organisations should set up a **DIB Community of Practice** to share and accelerate learning (see p. 9).
- DIBs should be **open by design**. Openness will accelerate confidence in DIBs for investors, governments, service providers and taxpayers and help to build a high quality market. Donors and foundations should establish a **research data protocol** which would provide a standard of data and facilitate information-sharing (see p. 9).

- DIB parties will have to accept the high transactions costs of early DIB pilots. Foundations should consider subsidising these costs by providing funding to **catalyse the development of a DIB market** (see p. 10).

Detailed recommendations, including for each actor, can be found below.

# Development Impact Bond Working Group Recommendations

## OVERALL RECOMMENDATIONS

The Development Impact Bond Working Group makes the following recommendations to encourage the development of early DIBs and the establishment of a viable market:

### 1. ESTABLISH OUTCOMES AND INVESTMENT FUNDS TO PILOT A RANGE OF DIB MODELS

We recommend that a consortium of donor agencies establish a **DIB Outcomes Fund**. The Fund would pay for outcomes achieved in DIB contracts and enables donor agencies to pool risk – political, operational, and reputational – and help get the first transactions off the ground. The Fund could be set up as a challenge fund, from which DIB specialist intermediaries and other potential project implementers compete for funds, leading to innovation in design and the channelling of funds to the best-designed DIB proposals. A range of models – in terms of target outcomes, locations and structures – should be piloted to enable testing of different models of intervention.

Similarly, we recommend that investors set-up **DIB Investment Funds**, which provide ready pools of capital for investment into DIBs. This would help to reduce the amount of time and resources needed to raise capital for each DIB opportunity, and also would improve efficiency of due diligence and transaction structuring, catalysing the launch and implementation of a range of early DIB pilots.

2. EVALUATE RIGOROUSLY AND ESTABLISH A COMMUNITY OF PRACTICE TO ACCELERATE LEARNING

Early DIBs should be rigorously and independently evaluated. Evaluations should include information on intervention costs and pricing of outcomes and results, and assess whether and how the structure helped to lead to improved outcomes in addition to including details of any positive or negative externalities. DIB actors should use learning from evaluations to improve the future design of results-based contracts.

To ensure that learning is shared, we recommend that a group of donors and philanthropic foundations establish a **DIB Community of Practice** of potential donors, investors, DIB development intermediaries and government agencies from developing countries to share learning from early DIB pilots and advise on the development and application of the model going forward.

This group should also consider lessons from Social Impact Bonds in developed countries and from other forms of payment-by-results contracts. DIBs involve many of the same challenges including defining appropriate outcome metrics; the need for multi-year donor funding commitments; and addressing public sector agencies' need to be accountable for programmes when they are not defining the way in which outcomes should be achieved.

3. MAKE DIBS OPEN BY DESIGN

We recommend that Development Impact Bonds are open by design. DIBs are a mechanism that encourages innovation and learning in service delivery and those lessons are most valuable if they are widely shared. Openness will accelerate confidence in DIBs for investors, governments, service providers and taxpayers and help to build a high quality market.

To enable the sharing of data, we recommend that donors and foundations consider establishing a **research data protocol**, which could build on existing reporting standards and be used to collect project-related data, including data on intervention costs, value of outcomes and impact data, which should be made available upon request from the public. The protocol could be enforced on all projects that receive outcomes payments from the

DIB Outcomes Fund (as per Recommendation 1) and could become standard contractual practice thereafter.

DIB actors should accept the principles that data should be made available for free, in a timely manner, and in accordance with agreed standards that will make data comparable. More specifically, to ensure openness in the design and implementation of DIBs:

- Outcomes data should be made public when outcomes are measured to trigger payments
- DIB contracts should be publicly available
- More detailed information, such as intervention costs, additional input costs, breakdown of outcomes by different populations or areas etc. should be made available over time.

### 4. ACCEPT ONE-OFF COSTS OF BUILDING A NEW MARKET AND INTRODUCING A NEW TOOL

The first DIB pilots will involve high transactions costs as all actors involved adapt to a new model of outcomes-based contracting that is backed by private investment. DIB actors, particularly outcomes funders, will need to invest resources in understanding and assessing the feasibility of implementing DIB structures, valuing outcomes and pricing risks (described in detail in Section 3). To ensure that initial pilots are not prohibitively expensive, funding should be made available for the design costs of early DIBs. This type of catalytic funding could ensure that outcome funders and investors do not absorb the costs of "building a market" into the costs of early DIB pilots.

We recommend that foundations consider investing in the development of a DIB market, for example by providing funding to intermediaries to do this design work, as a catalytic public good. Experience from the development of Social Impact Bonds has shown that specialist intermediaries have a key role to play in pulling together early pilots. Having a specialised organisation acting as the champion of the project, undertaking crucial feasibility work, coordinating DIB actors, representing parties not in the room and negotiating an agreement that fits the needs of all those engaged in the process is likely to be just as important in the context of DIBs.

### 5. SUPPORT THE BROADER ADOPTION OF SOCIAL IMPACT BONDS (SIBS) IN DEVELOPING COUNTRIES

As economies grow and tax collection improves, governments in developing countries have a growing pool of domestic revenues to finance government spending. We recommend that governments in developing countries consider using these revenues to pay for outcomes under Social Impact Bonds, and that donor agencies or foundations encourage the effective and efficient use not only of their own development funding (through DIBs) but also that of the partner countries they support (through SIBs, as they have been designed in industrialised countries). Because we expect developing country governments to face the same – if not higher – start-up costs in getting early SIBs off the ground, we recommend that donors and foundations consider funding some of the start-up costs associated with developing SIB markets, share learning, and provide technical assistance as needed.

## RECOMMENDATIONS BY ACTOR

### A. DONOR AGENCIES

- ***Make room for new partnerships to develop DIBs:*** Development Impact Bonds are a new approach, and projects cannot be easily put together using the existing procurement systems of most public sector agencies. We recommend that donor agencies consider how current systems can be adapted to allow them to take on the role of buying outputs and outcomes, thereby creating space for local actors to be innovative in their approaches to service delivery. Essentially DIBs are about forming partnerships, and to adopt this new approach donor agencies should work collaboratively with recipient country governments, potential investors, intermediaries and service providers. This collaboration will help ensure that DIB contracts developed are attractive to investors, create the right incentives for service providers and offer good value to outcomes funders, and so establish a good starting point for future deals.
- ***Establish a DIB Outcomes Fund*:** Given the novelty of the approach and higher transaction costs likely to be associated with initial DIBs, individual donor agencies may find it easier to jointly fund outcomes for DIB projects. We recommend that a consortium of

donors set up a DIB Outcomes Fund to pool risk for initial DIB projects and to more easily share lessons learned. The Fund could be set up as a challenge fund, from which DIB specialist intermediaries and other potential project implementers compete for funds, leading to innovation in design and the channelling of funds to the best-designed DIB proposals.

- ***Convene and participate in a DIB Community of Practice*:** To ensure that such information is shared, disseminated, and ultimately applied, we recommend that an organisation of global reach and convening power (perhaps using the platform of the Global Partnership for Effective Development Cooperation) establish a DIB Community of Practice, consisting of donors, investors, DIB development intermediaries, government agencies from developing countries and larger service provider organisations, who would share their experiences and provide a forum for disseminating lessons that will inform the development and use of these instruments going forward. It is recommended that a Community of Practice use lessons from Social Impact Bonds in developed countries and other forms of payment-by-results contracts.
- ***Insist on credible independent measurement and/or verification***. Where possible, we recommend that donor agencies request that outcome metrics be independently measured and reported by a third party. Where this is not practicable, donors should insist on the appointment of a third-party auditor of results with a strong interest in preserving its reputation for integrity.
- ***Promote openness and transparency***: To reduce transaction costs and help build an evidence base for DIBs, pilots should be developed, implemented and evaluated in a transparent and "open source" way. Donor agencies should require that outcomes data be made public, and contracts also be published.
- ***Support SIBs in developing countries*:** Donors should support the effective and efficient use not only of their own development funds (through DIBs) but also that of the partner countries in which they operate (through SIBs). Donors could do this either by setting aside grant funding for this purpose or by knowledge sharing through the DIB Community of Practice and other vehicles.

## B. TRUSTS AND FOUNDATIONS

- ***Help lay the groundwork for early pilots:*** In the short term, designing, developing and implementing early DIBs will involve high transaction costs. Given the newness of the approach, donors and/or investors may be unwilling to be the first to invest resources into building the DIB market. Foundations can make a big difference by providing subsidies that would catalyse the development of this market. Funds could be used to generate awareness of the DIB approach and its potential value; support the technical work of specialist intermediaries who are likely to be pulling the first transactions together; and fund research to pool learning from early DIBs to help build an evidence base. The challenges that donors will face in piloting the first DIBs will also apply – arguably to an even greater extent – to governments in developing countries trying to pilot SIBs. Thus, foundations should consider subsidising some of those same start-up costs in developing countries.
- ***Invest in DIBs:*** In the longer term, trusts and foundations could consider investing more of their assets in impact investments more generally, and DIBs in particular, to gain both financial and social returns from their transactions.

## C. INVESTORS

- ***Bring discipline and rigour to DIB implementation*:** DIBs align incentives by tying investors' financial returns to the achievement of social outcomes. To ensure that this leads to more effective service delivery and improved results, investors – or investment funds or intermediary organisations on their behalf – must be actively engaged and willing to offer their expertise. For example, by bringing discipline and rigour to DIB service delivery, performance management and outcome measurement, investors can play an important role in driving performance to achieve better social outcomes.
- ***Be the early adopters of DIBs*:** The first DIBs are likely to be regarded as high risk by commercial or institutional investors as they are an unknown structure without a track record and involve implementing programmes through non-government

organisations in developing countries. Social impact investors, who may be willing to take on higher risks in order to generate greater social impact, can be the trailblazers who make the first investments into DIBs/SIBs, thereby helping to crowd-in other private investors catalysing the emergence of a deeper and broader market for investment in development outcomes.

- ***Set up DIB Investment Funds*:** Given the innovative nature of DIBs, raising capital for the first DIB transactions on a deal-by-deal basis could be a labour-intensive and time-consuming process. Set up DIB Investment Funds – ready pools of capital that invest in DIBs – investors could enable the launch and implementation of early DIBs within a significantly shorter timeframe and help catalyse market growth.

## D. GOVERNMENTS IN DEVELOPING COUNTRIES

- ***Help identify DIB suitability*:** No one knows developing country needs better than their own governments. Thus, governments, including regional and local authorities,[1] should play a key role in selecting/screening DIBs, for instance by identifying complex social issues that could benefit from results-based approaches, a greater shift of resources towards preventative efforts, and/or private sector expertise.
- ***Give space for service providers to innovate*:** DIB contracts are structured around desired programme outcomes and are designed to allow local service providers more flexibility than they would have under traditional input-oriented contracts to tailor solutions to circumstances on the ground. Partner governments should allow space for service providers to innovate and adapt interventions such that they are better able to adapt to the needs of the local population and achieve better development outcomes.
- ***Stay involved throughout the DIB lifecycle*:** The involvement of developing country governments in the design and implementation of DIBs - whether as outcome funders, co-managers of contracts, service providers and/or observers/consultants – will ensure that DIBs reflect national priorities, take into account the local context, and spread learning to other public services.

1 Taken throughout to include other public entities such as public utilities etc.

- ***Consider funding SIBs:*** Where domestic resources for funding outcomes are available, emerging economy governments, including local authorities, could develop SIBs, with funding and assistance from donors if necessary.

## E. SPECIALIST INTERMEDIARY ORGANISATIONS

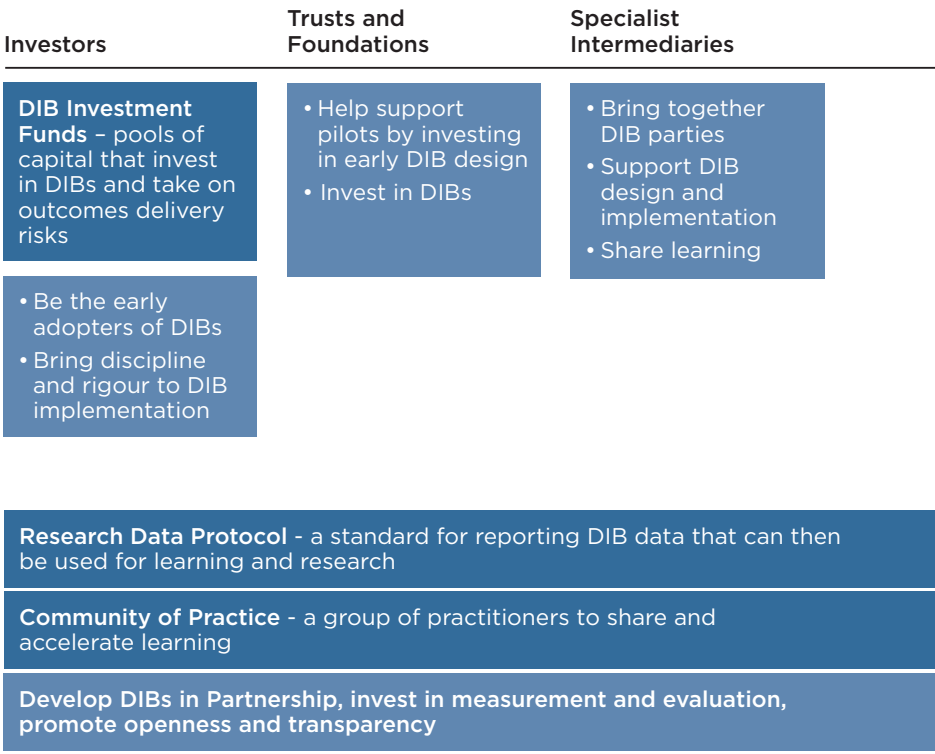
- ***Help bring together DIB parties to make transactions happen***: Intermediaries can help represent parties not in the room and support the negotiation of an agreement that fits the needs of all those engaged in the process. The experience of developing the Social Impact Bond market shows that specialist intermediaries can play a critical role in getting transactions off the ground.
- ***Support DIB design and implementation*:** Particularly in early DIBs, intermediaries can play an important part in supporting DIB design and implementation, beyond the role of intermediation. In particular, intermediaries can provide support to DIB parties in: feasibility assessment, contract development, capital raising, due diligence, performance management, service commissioning and capacity building.
- ***Contribute to the Research Data Protocol:*** Intermediaries should embrace openness in DIBs, including providing input into the design and setup of the Research Data Protocol and sharing data from DIB projects according to agreed Protocol data standards.
- ***Share learning and help further understanding of DIBs***: Intermediaries should participate in the proposed Community of Practice and help further understanding of DIBs via conferences, publications, secondments and partnership working.

## F. SERVICE PROVIDERS

- ***Contribute to development of DIB intervention models*:** Service providers hold existing relationships to service users and their communities and may be well placed to assess what intervention is needed. Where relevant, providers should collaborate with donor agencies, national and local authorities in developing countries and other DIB parties to develop the DIB intervention model to ensure its relevance to the target population.

- ***Adapt systems for results-based contracting*:** Service providers may be unfamiliar with the requirements for delivering in an outcomes-based contract. Being open to adaptations in terms of resources, processes and systems necessary for results-based contracting can help increase providers' ability to adjust their services in response to the emerging needs of the population and increase their impact.
- ***Be open to rigorous evaluation***: Rigorous evaluation of early pilots are needed to assess: whether and how interventions led to better outcomes; whether and how the structure led to greater innovation; and whether and how it resulted in greater efficiency in terms of services, stakeholders relations and value for money. Service providers should collaborate with DIB parties to ensure that lessons from early DIBs are captured and shared.

FIGURE 1. RECOMMENDATION BY ACTOR



# 1 Section One What are Development Impact Bonds and when could they be used?

The world has seen remarkable progress in achieving international development goals, but much remains to be done. The complexity and sheer scale of today's global challenges are daunting, but now more than at any other time in history, practical solutions and technologies to solve the world's problems exist, from life-saving vaccines to productivity-raising farming techniques. Often, the challenges of ensuring that these solutions and technologies reach the world's poorest people are questions of political will, leveraging limited resources, and the ability to target resources where they are most needed.

| Donor Agencies | Partner Governments | Service Providers |
|---|---|---|
| **DIB Outcomes Fund** - joint pool of capital from donor agencies to pay investors for outcomes achieved in DIBs | • Help identify DIB suitability<br>• Provide space for service providers to innovate<br>• Stay involved<br>• Consider funding SIBs | • Contribute to DIB development<br>• Adapt systems for results based contracting<br>• Be open to rigorous evaluation |
| • Insist on credible independent verification<br>• Promote transparency<br>• Support SIBs in developing countries | | |

Meanwhile, the resources and diversity of players working to address development problems has been expanding. In addition to governments and donors, a growing number of private sector actors are contributing to development, ranging from philanthropic organisations to commercially motivated investors. Within this group is an emerging class of investors – called "impact investors," who are motivated by both social and financial returns. Impact investing has begun to demonstrate that business can be a powerful force in bringing about sustainable solutions to social problems. Nevertheless, its potential is only just beginning to be realised. This is a largely untapped source of both funding and private sector expertise and could drive progress in the development of the world's poorest countries faster than ever.

Modelled on Social Impact Bonds (SIBs), which are already being implemented in many countries across the world from the UK to Australia, Development Impact Bonds (DIBs) are a new financing instrument that can help bring together the diversity of players involved in today's development scene, and use the best resources and expertise each player can offer to improve the quality and efficiency of social programmes and maximise social impact. As with a SIB, **investors** provide funds to implement social interventions, **service providers** work to deliver outcomes, and **outcome funders,** primarily public sector agencies, repay investors their principal plus a financial return if – and only if – independently verified evidence shows that outcomes have been achieved. A distinguishing feature of DIBs is that external development agencies would normally be needed to provide the outcome payment, or some portion of it in partnership with a developing country government; DIBs are therefore a tool which can improve both the efficiency of public services in developing countries and the efficiency of donor spending.

In the following section, we describe why DIBs are a timely – and potentially powerful – approach to solving complex social problems in the developing world; the main characteristics of DIBs and how they add value over existing approaches; and what it will take to develop a viable market for them.

## SOCIAL IMPACT INVESTMENT: A GROWING YET UNTAPPED MARKET

Traditional donors – once dominant providers of funding to developing countries – are now part of a much more diverse group that includes new, and increasingly private, actors. In this changing context, aid can

DIBS ARE A FINANCIAL INSTRUMENT THAT CAN BRIDGE THE GAP BETWEEN INVESTORS AND OPPORTUNITIES, AND BETWEEN FINANCIAL RETURNS AND SOCIAL BENEFITS.

be used to catalyse and complement these other flows, while taking care not to crowd them out.

Limited public resources can be used to unlock the potential of impact investors to drive social progress. Impact investments are investments that are intended to create positive impact beyond financial returns.[2] Impact investment is not new but broader considerations of risk in investment decisions resulting from the 2008–2009 financial crisis, and the growing recognition that existing resources are insufficient to address today's complex global issues, have led to rapid growth in the number and diversity of players involved. While exact figures are difficult to find, largely because there is no common definition of what constitutes an impact investment, the growth of impact investment vehicles – from Acumen Fund in 2001 to more than 125 funds and foundations supporting some form of impact investing in 2010[3] – illustrates the growing interest and activity in this sector. Today, impact investors range from philanthropic foundations to commercial financial institutions to high net worth individuals.[4]

Despite its potential, impact investing remains a new and fragmented marketplace, with surprisingly few deals given the growing number of players involved.[5] A number of challenges are slowing down the development of a thriving marketplace. First, a lack of mechanisms to connect interested investors with investment opportunities results in high transaction costs and fragmented supply and demand, making it difficult for individual investors to find investment opportunities that are of sufficient scale to justify the costs of sourcing deals and conducting due diligence. Second, insufficient information about the success (or failure) of social impact investments inhibits the flow of capital into the sector. Lastly, investors often cite a lack of financially viable social sector opportunities in which to place significant amounts of money as an obstacle to doing business.[6] In the absence of proven returns, investors will be reluctant to invest significant amounts of capital into the sector.

2 J.P. Morgan, (2010).

3 Simon and Barmeier, (2010).

4 In one attempt to try to "size" the market opportunity in developing countries, J.P. Morgan looked at the amount of invested capital that would be required over the next 10 years to fund businesses serving the "base of the pyramid" segment in emerging economies. It concluded that there is potential for invested capital ranging from $400 USD billion to $1 trillion USD and profits ranging from $183 billion USD to $667 billion USD. The Monitor Institute estimates that impact investing has the potential to mobilise USD$500 billion annually within 10 years. (J.P. Morgan, (2001); Monitor Institute, (2009)).

5 J.P. Morgan, (2001).

6 Simon and Barmeier, (2010).

To create a thriving marketplace, more creative instruments are needed to bridge the gap between investors and opportunities, and between financial returns and social benefits.

## PUBLIC FUNDING STRUGGLES WITH COMPLEX PROBLEMS

In the last half-century the development community has achieved unprecedented improvements in health, education, gender equality, security and human rights, with aid agencies having played an important role.[7] At the same time, many believe that development spending, including the more than $2 trillion spent in official aid in 50 years,[8] could have accomplished more; money does not always flow to where it is most needed and programmes are often run inefficiently. Part of the problem is in how development programmes are funded, with traditional, publicly funded programmes often finding it difficult to tackle complex problems. Development funding problems include:

*Poor targeting of resources:* In development, money does not always flow to where it is most needed. Governments may be reluctant to fund interventions with uncertain results or where results may not be observed until many years down the line. Underinvestment in prevention is a common problem: although it is cheaper to prevent a disease from taking hold than to pay for treatment later – including direct costs as well as the indirect costs of human suffering and lost economic productivity resulting from poor health – preventative interventions often require governments to take on unacceptable levels of risk, with benefits accruing too far into the future and too difficult to demonstrate. It is often easier to justify spending scarce public resources on more tangible outputs, like treatment, than on prevention.

*Inadequate incentives to focus on outcomes:* Under standard funding models, governments and/or donors provide working capital (usually in the form of a grant) for social programmes. Money is disbursed regardless of whether or not outcomes are achieved, and never returned if the project fails. To mitigate risk, governments and donors are forced to focus on how their money will be spent – or on *inputs* – instead of outcomes. This limits the space for solutions to emerge, and often

7 Kenny, (2011).
8 *Ibid.*

means that programmes end with uncertainty about the outcomes they have achieved.

*Limited space for innovation and adaptation:* An input or process-oriented approach often involves rigid and prescriptive solutions that limit experimentation, adaptation and the emergence of locally tailored solutions. Development experts are increasingly supporting the idea that development programmes should build in more space for learning and adaptation: Andrews, Pritchett and Woolcock discuss how an idea they call "problem-driven iterative adaptation" can help countries to build state capabilities and improve performance;[9] Tim Harford has promoted the idea of churn and adaptation, that big problems can only be solved through a willingness to experiment and to fail;[10] and Ramalingam and Jones,[11] among others, have drawn on 'complexity theory' to show that the complexity and interconnectedness of development challenges make linear approaches to problem-solving wholly inadequate. There is growing support of the idea that approaches must be adaptive if they are going to be successful. But the constraints of public funding makes it very difficult for donors to create circumstances for this adaptation to occur.

*Short-term funding focus:* Governments have incentives to focus on short-term programme delivery, especially when budgets are allocated year by year, but longer-term incentives might be needed to maintain or scale-up results.

*Insufficient evidence base to inform decision-making*: Collecting and monitoring data and creating effective feedback loops to be able to adjust programmes and policies to changing circumstances and/or new information are vital for ensuring that programmes achieve the best possible results, and governments, donors, or non-government service providers are held accountable. Although slowly improving, the availability of reliable data for monitoring development remains inadequate in many poor countries and the challenge of building effective in-country capacity to produce better policy-relevant data remains huge. Traditional input-based programmes do not create incentives to put in place the necessary systems to collect, monitor and evaluate information about outcomes and impact.

9 Andrews, Pritchett and Woolcock, (2012).
10 Harford, (2011).
11 Jones and Ramalingam, (2008).

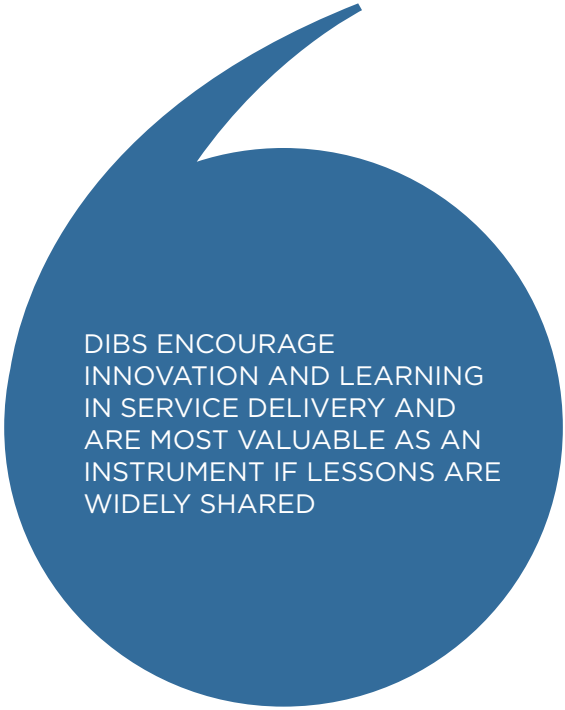
## DEVELOPMENT IMPACT BONDS: WHAT ARE THEY AND HOW DO THEY FIT IN?

### DEVELOPMENT FUNDING AND THE "RESULTS AGENDA"

To address these problems and increase the effectiveness of development funding, donors have already begun to experiment with results-based approaches to aid programmes. These approaches can take on many forms, from paying governments directly for high-level outcomes achieved ("results-based aid"), to paying service providers for completing a series of outputs or activities ("results-based financing") (examples are highlighted below in ***Box 1***). Nevertheless, they do have one thing in common; they all link funding to results achieved in some way, they all link funding to results achieved.

Results-based approaches could increase aid effectiveness by shifting the focus of development programmes away from inputs and processes, creating incentives to improve the delivery of results, and creating incentives to generate better information about these results. Moreover, results-based approaches allow for greater flexibility in intervention strategies than traditional, highly prescriptive programmes. The theory behind results-based approaches, particularly outcomes-based approaches like Cash on Delivery Aid, is that that they can more easily allow experimentation to take place because the funder is not committing the recipient to follow specific strategies and is not monitoring project inputs. Giving greater ownership and responsibility to the recipients – who have the most at stake if results are achieved – creates space for learning and innovation, which can have an impact that far outlasts the duration of a particular programme.

Understandably, it is challenging for donor agencies to be "adaptive" and to experiment with potentially risky intervention strategies using scarce public sector funds. The financial crisis and austerity measures in several donor countries have added to the pressure to demonstrate successes and avoid failure in publicly funded development programmes, and have made donor agencies even more risk averse. Results-based approaches could be a solution to this because they allow donor agencies to transfer implementation risk to a third


DIBS ENCOURAGE
INNOVATION AND LEARNING
IN SERVICE DELIVERY AND
ARE MOST VALUABLE AS AN
INSTRUMENT IF LESSONS ARE
WIDELY SHARED

party and pay only for results achieved. However, despite the potential of results-based approaches, their uptake so far has been modest at best.[12]

## WHAT ARE DIBS AND HOW DO THEY SOLVE DEVELOPMENT FUNDING PROBLEMS?

DIBs form part of the wider movement in development towards payment for results and could help to shift more aid to this type of contracting. Like other results-based approaches, DIBs aim to align development funding more directly with improved social outcomes, but unlike other approaches, DIBs provide a source of capital for interventions to be implemented in the first place, and allow governments or service providers to share risks with private investors. ***Box 1*** compares the features of Development Impact Bonds with other examples of results-based funding approaches. Further ways that DIBs can add value compared to alternative approaches and circumstances under which it makes sense to use a DIB are discussed below.

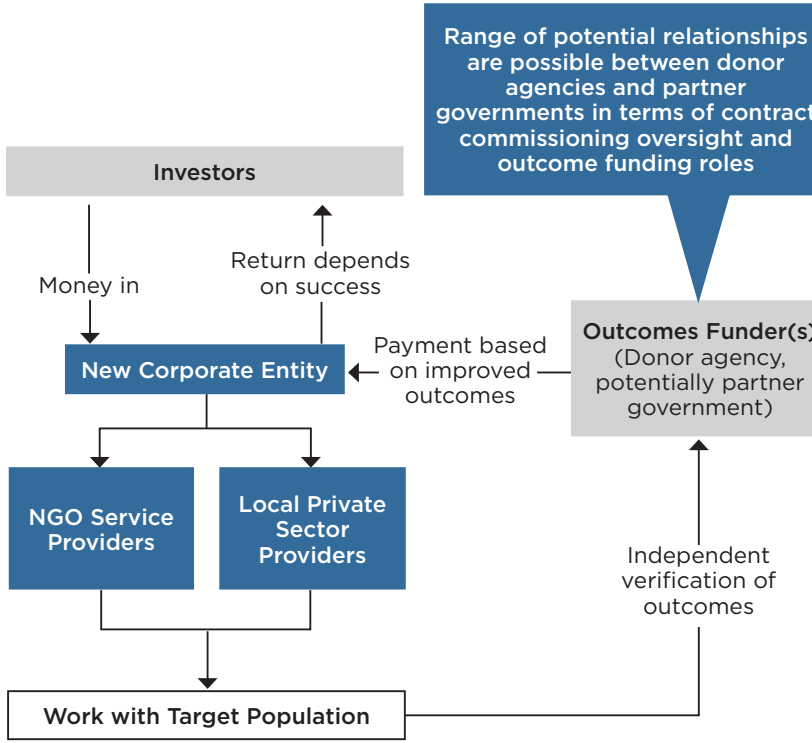
Similar to Social Impact Bonds (SIBs) first piloted in the UK in 2010, DIBs are structured around defined social outcomes; stakeholders – public, private and non-profit – come together and agree on the social outcomes they want to achieve (e.g. improved learning outcomes among school-age children) and a method for measuring success (e.g. the number of students who can read, write and count well enough to meet minimum learning standards). Private investors provide funding to roll out and/or scale up an "optimal mix" of evidence-based interventions aimed at achieving the desired outcome, through a network of high-performing service providers put together and managed by a third-party coordinating agency or performance manager hired by investors. Data is collected and progress is closely monitored, also through the coordinating agency or performance manager. If – and only if – independently verified evidence shows that these programmes succeeded in delivering the desired social outcomes, the outcome

12 According to one estimate, results-based approaches comprised just over $5 billion in 2010, or just under 4% of total disbursements of net official development assistance from members of the OECD Development Assistance Committee. Pereira and Villota, (2012).

This estimate involves a broad definition of 'results-based approaches' and does not include recent pilots such as the Payment by Results pilots by DFID which seek to test a "hands-off donor," outcomes driven approach. However, a lack of common definitions of aid modalities and standardised reporting on results-based aid flows makes it difficult to assess how large the scale of these programmes has been globally.

funders, usually public sector agencies, repay investors their principal plus a return that is commensurate with the level of success (e.g. the greater the reduction in HIV incidence, the greater the return, above a minimum threshold).[13] To give the intervention(s) enough time to generate outcomes, a DIB would ideally be structured over a period of 5–10 years.

FIGURE 2. POTENTIAL DIB STRUCTURE




By having private investors provide (and assume risk for) funding for social programmes and by introducing financial returns that are tied to the achievement of social outcomes – the distinguishing feature of the model – DIBs present a paradigm shift in how we fund social programmes:

13 A threshold would be to ensure a statistically significant result.

- *DIBs transform neglected social problems into investible opportunities*: Although this is slowly beginning to change, social services – particularly those aimed at the world's poorest, most vulnerable people – do not yield sufficiently high financial returns to attract private investment, despite their obvious benefits to society. This results in market failure. Governments, which in theory are expected to fill in gaps where there are market failures, face a different set of constraints – political, financial, and operational – that result in underinvestment in essential services, particularly in prevention. By attaching a monetary value to the achievement of social outcomes, DIBs transform seemingly intractable social problems – partly the result of both market and government failures – into "investible" opportunities for investors, while allowing governments to transfer some of the risks which prevent them from investing in tackling these problems.
- *DIBs introduce market rigour to achieving social outcomes*: Because investors' returns are tied to the achievement of social outcomes – and because the size of the return is commensurate with the level of success (i.e. the higher the social gains, the higher the financial returns) – investors are given incentives to target populations that face the greatest needs, as this is often where the greatest gains (social and financial) are to be had. They are also given incentives to deliver those services in the most efficient and cost-effective way, and put in place the performance management systems necessary to measure, track and improve outcomes
- DIBs create *incentives to make funds available for longer periods of time:* Because it takes time for social outcomes to materialise, and because investors' outcome payments are triggered by independent verification of outcomes achieved, an investment-backed structure like DIBs could create incentives to fund programmes over a longer period of time (5–10 years) than traditional development programmes, allowing service providers to lay the groundwork for scaling up interventions.

The key characteristics of a Development Impact Bond are:

- Some or all project financing is provided by **investors** who assume risk for project performance

- An **outcome funder** must be willing to pay for pre-defined results after they are achieved
- **Financial returns** to investors are tied to the achievement of social outcomes
- **Outcome funders do not specify interventions** – strategies for achieving outcomes are agreed between investors and service providers, usually through an intermediary or coordinating agency, with some flexibility for adaptation through the duration of the programme
- Contract outcomes and outputs are **independently verified** to ensure that both investors and outcome funders are confident about the extent to which results have been achieved

## BOX 1. THE LANDSCAPE OF RESULTS-BASED CONTRACTING FOR DEVELOPMENT: DIBS VS. EXISTING APPROACHES

| Instrument | Shared characteristics | Key differences |
|---|---|---|
| **Results-based aid (RBA)** involves a funding relationship between a donor and a partner government. | | |
| **Cash on Delivery Aid:** Donors agree to pay recipient governments a fixed amount (e.g. $200) for incremental progress made towards a pre-defined outcome (e.g. each additional child who completes primary school). | Funders are non-prescriptive and 'hands-off', allowing room for service provider innovation and tailoring of solutions to local contexts.<br><br>Outcomes are independently verified before payments are made. | COD Aid requires that governments use existing resources to cover programme costs and shifts implementation risk from donors to these governments. |
| **Global Alliance for Vaccines and Immunization, Immunisation Services Support (GAVI/ISS):** After receiving an initial cash grant to rollout an immunisation programme, partner countries received additional payments for incremental progress made against a baseline for the number of children vaccinated.* | Apart from the initial "start-up" grant, payments are made on an outcomes-basis, for incremental progress made. | GAVI ISS did not require independent verification of results, instead relying on the recipient country's reporting system.<br><br>GAVI provides an initial investment to governments and only links part of funds to outcomes. |

* GAVI ISS is currently being phased out, to be replaced by a new performance-based funding (PBF) scheme, approved in November 2011, which is moving toward the use of household surveys in some countries to verify results.

| Instrument | Shared characteristics | Key differences |
|---|---|---|
| **Results-based aid (RBA)** involves a funding relationship between a donor and a partner government (continued). | | |
| **Budget support with variable tranches:** In addition to receiving a "fixed" tranche upon meeting eligibility criteria, partner countries may receive "variable" tranches if they meet mutually agreed targets (i.e. public finance and Millennium Development Goal-related indicators). | Budget support programmes offer recipient countries more freedom in setting priorities and implementing programmes than traditional aid. | Budget support programmes are not structured around a single clear outcome, making 'progress' more difficult to track and less transparent to recipient country citizens. |
| **Results-based financing (RBF)** entails payments from domestic government sources and/or donors directly to beneficiaries or non-government providers. It includes output-based aid, provider payment incentives and performance-based transfers, among others. | | |
| **The Global Partnership on Output-Based Aid (GPOBA):** Contributions are channelled from donors to service providers, typically private firms and NGOs, for the delivery of specific outputs, such as schools built, or increased access to water supply. | Payments are tied to delivery of pre-agreed results.<br><br>Outcomes are independently verified before payments are made. | GPOBA is primarily focused on outputs (i.e. schools built) instead of outcomes (i.e. improved learning).<br><br>Like most RBA/RBF schemes, GPOBA does not provide pre-financing, which limits the number and types of organisations that could participate. |

| Instrument | Shared characteristics | Key differences |
|---|---|---|
| **Pull Mechanisms** are "carrots" designed to encourage private and public sector innovators to develop products and services that they would not otherwise bring to the market. | | |
| **Advance market commitments (AMCs):** By making a binding commitment to buy a technology at a guaranteed price if/when it is developed, donors create incentives for private companies to develop socially desirable technologies that would otherwise be financially unviable due to low demand. | There would be no cost to donors unless the result is achieved – i.e. the desired technology is developed. | The purpose of AMCs is to create market where they don't exist, but incentive payments are not based on measured social outcomes (i.e. reduced child mortality). |
| **Loan Instruments** usually involve a loan or credit component. | | |
| **International Development Association (IDA) debt buy-downs:** Donors agree to pay off the net present value of an IDA loan to a "least developed" country if – and only if – that country meets pre-determined performance targets. | IDA buy-downs offer recipient countries more freedom in setting priorities and implementing programmes than traditional aid.<br><br>Results are independently verified before debt is paid off. | Although IDA provides developing country governments with a credit/loan to cover programme costs, it shifts 100% of implementation risk from donors to these providers. |

## THE VALUE OF DEVELOPMENT IMPACT BONDS

By building in a source of pre-financing, shifting risk to actors outside the public sector and creating incentives to focus on development outcomes, DIBs address a number of issues associated with existing results-based approaches (***Box 1*** compares the features of Development Impact Bonds with other examples of results-based funding approaches.) They also have enormous potential to serve as a *platform for development cooperation* – an instrument that brings together the best of the private sector, civil society organisations, governments and donors and provides a way to enhance coordination among them.

The value of DIBs over alternative results-based funding approaches can be classified into three key categories: access to finance, incentives effectively to deliver results and a platform for development cooperation.

### ACCESS TO FINANCE

Results-based aid (RBA) approaches usually rely on developing country governments to supply funding for interventions and thus assume risk of failure, whereas results-based financing (RBF) approaches usually rely on service providers. However, developing country governments often find it difficult to fund social services independently (especially preventative interventions) because they have a small tax base and large informal economies. Moreover, high interest rates and low credit-worthiness can make it difficult for them to borrow in capital markets, especially to fund programmes whose outcomes are characterised by a high degree of uncertainty. Service providers, usually comprised of non-profit organisations and charities, are similarly limited in their ability to access finance. For these reasons, it is not always possible for governments and service providers to enter into traditional results-based contracts, where funding is provided only after the impact has been achieved.

DIBs solve this problem by having investors provide pre-financing – and assume risk – for interventions expected to lead to improved social outcomes. The structure can be used to pay for services to achieve outcomes where the delivery of effective interventions is not well understood, to expand programmes that have been effective on a small scale but about which there is uncertainty in scaling up, and to address other pressing social problems that require public agencies to take on unacceptable levels of risk.

## FOCUS ON RESULTS

Although provision of working capital is an essential characteristic of DIBs, involvement of the private sector provides benefits beyond just financial. For instance, the private sector can offer expertise in measuring performance data and establishing feedback loops, as businesses' survival often depends on their ability to collect (and quickly respond to) real-time data from customers. By tying investor returns to achievement of social outcomes, DIBs create incentives for investors to put in place – usually through a coordinating agency – the necessary feedback loops, data collection and performance management systems required to achieve desired outcomes, resulting in a bottom-up, client-centred – and generally more effective, innovative and flexible – approach.

Although contracting a coordinating agency is not a requirement of the DIB model, it can enhance the DIB structure's focus on results in a number of ways. Because it exists independently of any single stakeholder involved in the DIB, it can serve as an honest broker and maintain a singular focus in achieving social outcomes. For example, in the case of the Peterborough prison SIB (***Box 2***), by integrating client data and case management systems and ensuring access to robust management information, the coordinating agency allowed the programme to adapt and improve (see p. 129 in Section 3 for more on the role of the intermediary organisation). This adaptability and flexibility are key features of DIBs: coordinating agencies and private sector actors can alter interventions and manage service providers in response to changing circumstances and new information, more easily than government agencies.

## PROVIDING A PLATFORM FOR DEVELOPMENT COOPERATION

Lastly, DIBs provide a development cooperation platform that is well suited to the diversity of players – public, private, and non-profit – involved in development today. Not only does it allow these actors to work together, but also captures and complements the best of the contributions each player can make to achieve development outcomes, which none could achieve on their own.

Used appropriately in well-designed programmes, Development Impact Bonds have the potential to:

1. Enable **private investors**, whether they are looking for commercial returns or wanting to combine financial returns with social impact, to support the delivery of services which have social value but which may not – under current models - yield a financial return that is big enough or quick enough for private investors; and enable investors to inject better management based on evidence, data, and incentives;
2. Provide finance to **service delivery organisations**, enabling them to expand their services and at the same time to be responsive to local priorities, to build services around clients and not contracts, to take risks, to learn and adapt;
3. Enable **countries and governments** to invest in people for the long-term benefit of the country; to make investments in institutions, infrastructure and human capital in ways which would otherwise be unaffordable today despite the long-term social value; and enable countries to set their own priorities, and innovate with the benefits of support from donors but without the risk of excessive oversight; and
4. Enable **donors** to catalyse change with modest amounts of aid, leveraging the benefits of private finance and know-how; to focus on what is achieved rather than how money has been spent; to implement the aid effectiveness principles to which they are committed but which they have had difficulty reconciling with their own accountability needs (namely country ownership, country systems, harmonisation, mutual accountability and management for development results, etc.).

Further discussion of the role of each actor can be found in Section 3E.

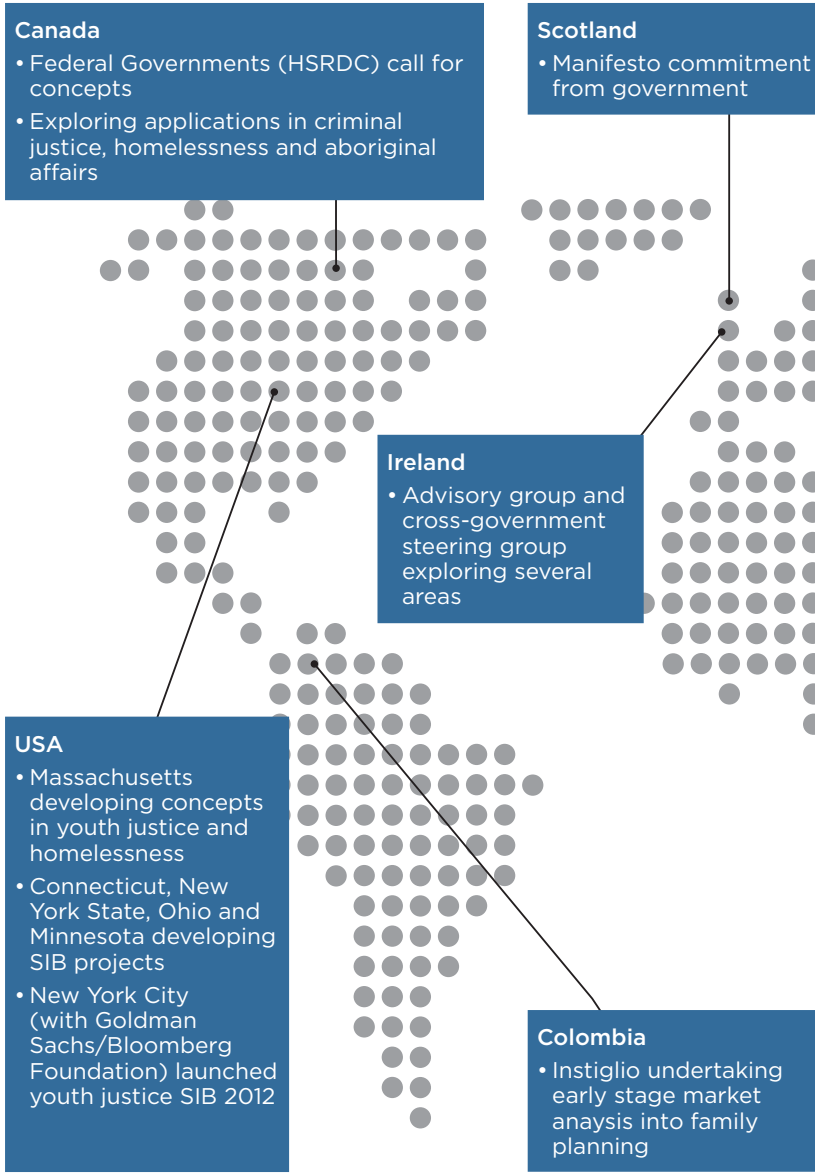
## HOW FAR HAVE DIBS PROGRESSED?

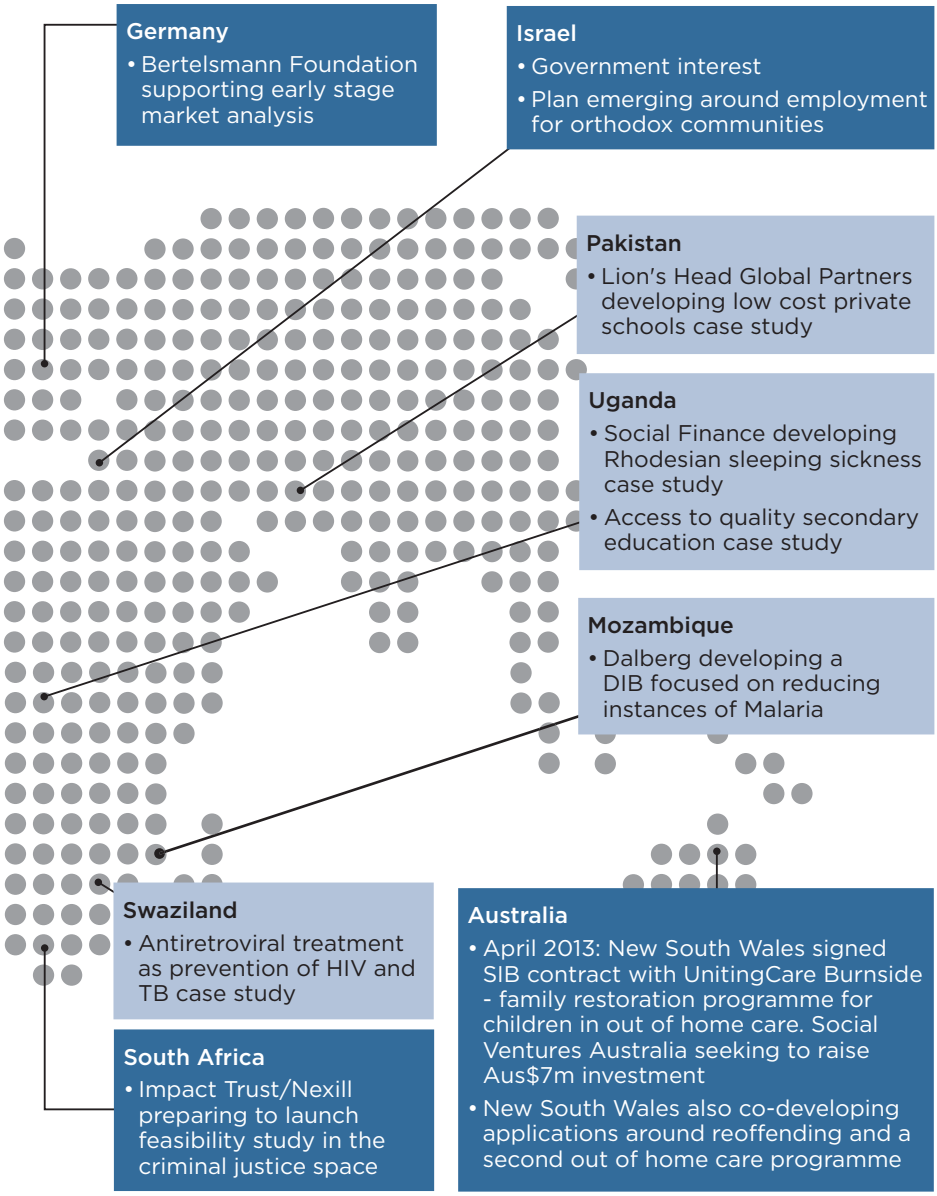
There are several SIB pilots in industrialised countries (***Box 2***) but the model has only recently gained attention in international development circles. Thus, it comes as no surprise that it has yet to be formally launched in any developing country. There are, however, a number of pilots in various stages of feasibility, development and negotiation and a number of actors working in this area.

Social Finance is working with partners to develop a number of potential models, some of which are included in the six case studies

considered by the DIB Working Group (see Section Two - Applying Development Impact Bonds) and some of which are described further below. Instiglio, another intermediary organisation which is focused on implementing DIBs in low and middle-income countries, is currently exploring the application of the model in several emerging economies and is in the feasibility stage of developing a SIB to reduce teen pregnancy in the state of Antioquia, Colombia. Dalberg (via D. Capital) is also currently working with partners to explore how this model could be used to fight malaria in Mozambique.

FIGURE 4. DIBS AND SIBS AROUND THE WORLD.
**There are 14 SIBs up and running in the UK in the areas of: criminal justice, homelessness, workforce development and youth services**




Germany
• Bertelsmann Foundation supporting early stage market analysis
Israel
• Government interest
• Plan emerging around employment for orthodox communities
Pakistan
• Lion's Head Global Partners developing low cost private schools case study
Uganda
• Social Finance developing Rhodesian sleeping sickness case study
• Access to quality secondary education case study
Mozambique
• Dalberg developing a DIB focused on reducing instances of Malaria
Swaziland
• Antiretroviral treatment as prevention of HIV and TB case study
South Africa
• Impact Trust/Nexill preparing to launch feasibility study in the criminal justice space
Australia
• April 2013: New South Wales signed SIB contract with UnitingCare Burnside - family restoration programme for children in out of home care. Social Ventures Australia seeking to raise Aus$7m investment
• New South Wales also co-developing applications around reoffending and a second out of home care programme

## BOX 2. SOCIAL IMPACT BONDS IN DEVELOPED ECONOMIES

To date DIBs are in the early stages of development; however a similar investment backed model is being increasingly piloted in more developed countries. The UK pioneered the creation and development of SIBs in 2010 with the launch of the world's first SIB pilot in the UK criminal justice sector, described in detail below. A number of developed countries, including the U.S., Australia, Canada, Ireland and Israel, are now in varying stages of exploring, developing and/or implementing SIB pilots. To date these have been focused mostly on criminal justice, homelessness, workforce development and youth services, but work is underway to develop applications in new sectors like health, social care and drug rehabilitation.

A number of factors have contributed to the rapid spread of the SIB model in developed countries. First, in times of economic recession and austerity, governments are under pressure to do more with what they have. Early intervention programmes focused on reducing recidivism and homelessness, helping troubled teens to remain safely with their families, and keeping individuals stably employed, can achieve value for money, as an investment today can generate considerable public benefit later down the line. SIBs provide working capital to fund these services, transferring the risk away from the public sector should the implementation of these interventions prove unsuccessful in improving outcomes. Second, an international precedent, as pioneered by the UK, has made SIBs a more viable opportunity for other countries, pointing to the potential for reduced transaction costs as more pilots get off the ground. It is our hope that once a handful of DIBs start to be implemented, other developing countries will similarly follow suit.

### Criminal Justice

In 2010, Social Finance UK raised £5 million from 17 investors to provide comprehensive assistance to 3 cohorts of 1,000 men (3,000 in total) released after serving short-term jail sentences in Peterborough Prison. Their recidivism rates are tracked for 12 months following discharge and compared to the rates of a matched control group. If rates fall by at least 7.5 per cent across all three cohorts compared to the control group, the British government will repay the investors their principal plus interest. The higher the drop in recidivism rates, the higher the government payment to investors, capped at 13 per cent per year. If the threshold is not met, investors will lose their investment.[i] Although the Peterborough SIB will take 8 years to complete, investors can expect to receive their first payment as early as 2014, when results for cohort 1 will become available.[ii]

The financial crisis and pressure on budgets have pushed U.S. leaders to consider adopting SIBs, or "Pay for Success" contracts, to cut costs. The Justice Department, which gave priority consideration in the 2012 Second Chance Act grant programme to applicants who incorporated a SIB model into their programme design, has made two Pay for Success awards: an implementation award to Cuyahoga County, Ohio, and a

planning award to Lowell, Massachusetts.[iii] The Second Chance Act, passed into law on April 9, 2008, is designed to improve outcomes for people returning to communities from prisons and jail.

New York City has also launched a SIB, also in the area of criminal justice. Announced in August 2012, the New York City SIB will use a $9.6 million investment from Goldman Sachs to fund a programme targeted at reducing recidivism among annual cohorts of 3,000 young men discharged from Rikers Island prison.[iv] Currently, nearly 50 per cent of young men released from Rikers reoffend within a year.[v] If recidivism rates drop by 10 per cent over 4 years, Goldman Sachs is repaid its investment and - if the programme achieves a greater success rate - could receive a return on its investment not exceeding $2.1 million in total. If the programme fails to achieve a 10 per cent reduction in recidivism, Goldman Sachs stands to lose part of its investment. However, its maximum loss is capped at $2.4 million due to a $7.2 million loan guarantee from Bloomberg Philanthropies.[vi] Results are expected in 2016.

In the same week that New York announced its SIB agreement, Massachusetts announced the selection of initial successful bidders for SIBs to address juvenile justice and chronic homelessness.[vii] It has also adopted legislative backing for "Pay for Success" contracts and has announced a desire to sign up to $50 million in contracts under the programme.[viii] Jay Gonzalez, Massachusetts's secretary of administration and finance, indicated that if the pilots are successful, Massachusetts will expand into other areas, perhaps higher education.[ix] The ultimate structure of the Massachusetts programmes are currently under development and yet to be announced.

The Government of New South Wales, Australia, is also developing three SIBs (using the local terminology 'Social Benefit Bonds'), one of which focuses on reducing reoffending.[x] This SIB pilot is currently at a Joint Development Phase, to be finalised between Government, preferred proponents, service providers and potential investors.

### Homelessness

In 2012, the Greater London Authority (GLA) awarded SIB contracts to two providers to pay for interventions to tackle rough sleeping in London. The Department of Communities and Local Government (DCLG) will transfer funding to the GLA for the SIB outcomes payments worth up to £5 million. The 3-year programme, to be delivered by London-based homelessness charities St. Mungo's and Thames Reach, will provide intensive support to a cohort of 831 entrenched rough sleepers who have been recorded rough sleeping and/or have stayed in a London rough sleeping hostel in the last three months, and who have been recorded rough sleeping at least six times over the last two years.[xi] If service providers deliver improved outcomes, including achieving sustained accommodation, reducing visits to A&E hospital departments and helping to place individuals into volunteer or paid positions, they will receive up to £2.4 million each to repay investors and

provide a financial return.[xii] Investors will receive single-digit financial returns and the charity will receive all remaining profit.

The governments of Massachusetts, Ireland, and the United States are also exploring the potential of SIBs to address chronic homelessness, among other social issues. However, this work is still in the early stages of development.

### Workforce development

The UK Department of Work and Pensions (DWP) has made up to £30 million available to pay for improved employment outcomes for young people. This money comes from the DWP's Innovation Fund, which backs new payment-by-results schemes to tackle youth unemployment. To date, ten investment backed contracts have been awarded to providers across the UK. The DWP has identified a number of outcomes against which programmes will be measured, including improved behaviour, school attendance, educational qualifications and employment opportunities.

Similarly, the U.S. Department of Labor has made up to $20 million, funded by the Workforce Innovation Fund, available for SIB programmes that focus on employment and training outcomes.[xiii] Successful bidders will be announced in spring 2013.

### Youth services

Essex County Council (ECC) in the UK has recently backed a SIB that focuses on 11-16 year-olds at the edge of care or custody in Essex, with the objective of improving their long-term social outcomes through providing support to them and their families so that they can safely remain at home.[xiv] Social Finance UK, the organisation contracted to deliver the SIB, has raised £3.1million from investors, who can expect a return if the scheme succeeds in reducing number of days spent in care by adolescents in the programme. Broader outcomes measured by the SIB include school attendance and attainment, offending and measurements of emotional wellbeing. The scheme will provide interventions for around 380 adolescents and their families, with the aim of diverting around 100 from entering the care system by funding a series of evidence-based programmes.[xv] Initial results are expected at the end of 2013.

It was announced in April 2013 that the first SIB contract in New South Wales, Australia, has now been signed with UnitingCare Burnside - a family restoration programme for children in out of home care. Social Ventures Australia is seeking to raise Aus$7million investment. The Government of New South Wales, is also continuing to co-develop a second SIB targeting improved out-of-home care for children.[xvi]

[i] Disley, Rubin, Scraggs, Burrowes, and Cully, (2011).

[ii] There are two targets for reducing reconviction rates, both of which can trigger outcome payments if they are reached. The first target is a 10 percent reduction in each cohort of 1,000 prisoners (the minimum required to achieve statistical significance in a cohort of this size). If a 10 percent reduction is not detected for any of the 3 cohorts at the end of the entire SIB period, the cohorts will be evaluated together, resulting in the second trigger – a 7.5 percent reduction across all 3 cohorts. If this threshold is achieved, investors will be paid an agreed fixed sum per reconviction event avoided. The pay-out year 2014 is based on the estimate that it takes approximately 2 years for a cohort of 1,000 unique offenders to be discharged from HMP Peterborough, a further year to assess their re-offending behaviour and a final year to process reconvictions in court, confirm data, verify outcomes and calculate outcome payments.

[iii] U.S. Department of Justice, (2010).

[iv] Office of the Mayor, NYC, (2012).

[v] Chen, (2012).

[vi] Preston, (2012).

[vii] Executive Office for Administration and Finance, State of Massachusetts, (2012).

[viii] Costa and Kohli, (2012).

[ix] Rosenberg, (2012).

[x] Social Finance UK website. http://www.treasury.nsw.gov.au/site_plan/social_benefit_bonds

[xi] Social Finance UK website http://www.socialfinance.org.uk/homelessness

[xii] As the rough sleeping cohort has multi-dimensional needs, five outcome metrics were identified to assess the effectiveness of Social Impact Bond-funded interventions in sustaining the cohort to live off the streets. The metrics are intended to incentivise substantial additional progress beyond the core outcome to reduce rough sleeping. They include:

1. Reduction in the number of individuals with a bedded down street contact each quarter;
2. Confirmed sustainment of tenancy in a non-hostel setting;
3. Confirmed reconnection to a country in which individual enjoys local connections;
4. Sustained volunteering, part-time or full-time employment; and
5. A decrease in the average number of A&E episodes per person per year.

[xiii] U.S. Department of Labor, (2012).

[xiv] Social Finance website http://www.socialfinance.org.uk/vulnerable-children

[xv] Action for Children have been contracted to deliver Multi-Systemic Therapy (MST), an evidence-based programme delivered in the home by highly qualified therapists, focused on improving parenting and rebuilding positive relationships within the family and between the family and the wider community.

[xvi] New South Wales Treasury website , http://www.treasury.nsw.gov.au/site_plan/social_benefit_bonds

## CREATING A VIABLE MARKET FOR DEVELOPMENT IMPACT BONDS

Development Impact Bonds have the potential to improve the impact of development funding. For DIBs to reach scale and become a normal tool for achieving results in development, a viable market of investors and outcome funders will gradually need to form. A mature market will require: (1) a robust supply of investors, (2) confident demand from outcome funders, and (3) market infrastructure, or mechanisms that facilitate the investors and outcome funders doing business together. Over time, a well-functioning market for DIBs would improve the quality of social services and increase the quality of funding, both by providing a clear indication of the results achieved by development programmes and by channelling resource allocation towards services that generate the highest impact.

Developing DIBs – and implementing them at scale – will take time, resources and new skills and expertise. Partner governments and donors will need to adapt their commissioning capabilities to fit the needs of results-based contracting, think creatively about valuing outcomes and decide what risks to transfer to the private sector and which to keep for themselves. Private investors, many of whom will be relatively new to investing in outcomes-based contracts, must be able to assess risks that are unfamiliar to them. Coordinating agencies, also new to the scene, will need to develop the capabilities to support governments and investors in structuring DIBs, bridging the gap between different institutional cultures and providing technical support to determine outcome values, risk premiums and payment schedules that will be attractive to both investors and outcome funders. Lastly, service providers must develop the necessary tools and capacity, potentially with the support of specialist intermediaries, to measure, track and ultimately deliver social outcomes effectively and at good value for money.

In the short term there will be costs to introducing and refining these DIB structures. Interested outcome funders, investors and service delivery organisations will need to work in partnership and devote resources to understanding and developing the approach in order to determine whether and how they can implement it. For example, there will be transaction costs associated with assessing the feasibility of a DIB approach in solving specific social problems and with monitoring and verifying outputs and outcomes more closely than would otherwise

be required. Because of these additional costs associated with putting together the first deals, donors, partner governments and private investors may be hesitant to be the first to put their money on the line to test the approach. Unless someone is willing to bear the costs of catalysing the new market, the potential long-term benefits of a more effective partnership which achieves better development impact at lower cost may never be realised.

To ensure that initial DIB pilots get off the ground, funding should be made available to cover the costs of developing initial pilots, which will lead to the development of a viable market. The DIB Working Group recommends that external organisations willing to take on higher levels of risk in return for achieving high social impact, such as trusts and foundations, provide this funding to catalyse the formation of a market for DIBs. This funding could be used to: generate awareness and understanding of DIBs and the potential benefits they can bring, support the intermediation that is needed to bring different parties together and negotiate an agreement that fits all those engaged, as well as to support the more technical work of intermediaries in the design of early DIB pilots, including tackling some of the key challenges related to valuing outcomes and pricing risk (the role of intermediaries is discussed in detail in Section III). This initial funding could also be used to fund research to assess the benefits of the DIB structure as compared with alternative approaches, thus building an evidence base for DIBs as an instrument.

As potential outcome funders, investors, government agencies in host countries and service providers become aware of this approach and the potential value that it could bring, these parties should convene in partnership to explore potential DIB pilots and ways that the model can address challenges that are not adequately addressed by current funding mechanisms. Working collaboratively will ensure that early DIB contracts are attractive to investors, create the right incentives for service providers and offer good value to outcomes funders, thereby leading to the implementation of pilots that can provide examples and lessons about how the approach works.

Particularly while DIBs are a new approach, various outcome funders should strongly consider creating a mechanism that would allow them to share risks as well as lessons learned. They could set up a **DIB Outcomes Fund** to provide joint funding of development outcomes.

This could, for instance, be set up as a challenge fund, where DIB specialist intermediaries and other potential project implementers compete for funds to be used as outcome payments, leading to innovation in design with funding flowing to the best-designed DIB proposals.

As pilots develop, in order to determine whether DIBs are an effective approach to solving development problems and if so to take the approach to scale, it will be important that lessons from DIB design and implementation are shared.

First, a rigorous evaluation design should be built into pilots. Evaluations should assess whether and how interventions led to better outcomes; whether and how the structure changed incentives and led to greater transparency around the impact of donor funding; whether and how the structure led to greater innovation; and whether and how it resulted in greater efficiency in terms of services, stakeholder relationships and value for money. This will help build the evidence base for DIBs and allow good approaches to emerge and spread, and bad ideas to "fail quickly." These evaluations should be made public as soon as they are available to ensure that lessons from past evaluations can be used to inform the design of future programmes.

Second, to promote and accelerate learning about DIBs, donor agencies and philanthropic foundations could also establish a **DIB Community of Practice** of potential donors, investors, DIB development intermediaries and government agencies from developing countries to share experiences and learning from early DIB pilots and advise on the development and use of these instruments going forward, possibly using lessons from Social Impact Bonds in developed countries and from other forms of payment-by-results contracts.

Lastly, it is important that DIB pilots are sufficiently transparent so that these lessons are shared and used to advance the development of a market. DIBs should be developed, implemented and evaluated in a transparent and "open source" way. Donors and governments that are parties to DIB contracts should make all contracts publicly available as part of a broader movement towards more open government processes. Publication of contracts is important because (1) citizens have a right to know how their tax money is being used and (2) it can increase

the quality of government investment decision-making by exposing decisions about how funds are being used to public scrutiny.[14]

When pilots are underway, data on outputs or outcomes should be made public when they are measured as the basis for payments, for the benefit of local stakeholders and beneficiaries as well as taxpayers in donor countries. More detailed information, including on the design and costs of specific interventions and pricing of outcomes, should be made available over time as the results of independent evaluations are released. Openness will help to generate evidence of the effectiveness of the approach, accelerate confidence in DIBs for investors, governments, service providers and taxpayers, and reduce transactions costs over time.

Detailed recommendations are set out on p. 8.

# 2 Section Two - Applying Development Impact Bonds

The Development Impact Bond Working Group has been exploring potential Development Impact Bond models through six case studies developed in collaboration with a range of partners. These case studies span a number of sectors including health, education, business development services and energy efficiency in a range of countries, from Uganda to Pakistan. They are in various stages of development and may or may not ultimately be developed into DIB contracts, but were discussed by the Working Group and included here to illustrate the breadth of social issues to which DIBs can be applied and to explore potential models and considerations for their design.

14 These ideas are explained more fully in Kenny and Karver, (2012).

## CASE STUDY 1:
## Reduction of Rhodesian sleeping sickness in Uganda

### THE SOCIAL ISSUE

Rhodesian sleeping sickness threatens 9 million people in Uganda, mostly in poor, rural areas. It is expensive and difficult to diagnose and treat in humans; as a result it is often fatal. Historically, cases have been limited to the south-east of the country, however the affected area has been expanding over recent years, driven by the movement of cattle.

Two forms of human sleeping sickness exist, Rhodesian and Gambian. Uganda is the only country where both forms are found. Gambian sleeping sickness is a chronic illness that is transmitted from person to person via tsetse flies. Rhodesian sleeping sickness is the acute form of the disease - cattle act as the main reservoir for the human infective parasite, also transmitted via tsetse flies.

### THE OPPORTUNITY – WHY IS A NEW FINANCE MODEL NEEDED?

Without intervention, there is a significant risk of convergence of the two strains of disease within the next 10 years. The public health consequences are potentially large with significant cost implications. There is an established government infrastructure in Uganda for coordinating and monitoring sleeping sickness interventions. However, due to a lack of resources, current control efforts are insufficient to effectively control the transmission of zoonotic sleeping sickness and to halt overlap of the two strains of disease.[15]

Cost effective, preventative measures to reduce instances of Rhodesian sleeping sickness through the targeting of cattle have been developed and piloted.[16] Treating cattle reduces the prevalence of the human infective parasite unlocking human health benefits. It also reduces the prevalence of the animal infective parasite, unlocking animal health and cattle productivity gains. However, to maintain this reduction, cattle in the areas in which sleeping sickness is prevalent need to be sprayed regularly with insecticide to ensure that gains in the short term and sustained over the longer term.

There is an existing network of local partners focused on sleeping

15 Picozzi, Fèvre, Odiit, Carrington, Eisler, Maudlin and Welburn, (2005).
16 Welburn, Picozzi, Fèvre, Coleman, Odiit, Carrington and Maudlin, (2001)

sickness in Uganda and the DFID funded Research Into Use (RIU) programme supported delivery of a number of small scale interventions through the Stamp out Sleeping Sickness (SOS) Alliance. A DIB could rapidly scale interventions to reduce Rhodesian sleeping sickness and make gains sustainable in the longer term - potentially eliminating Rhodesian sleeping sickness in Uganda.

### TARGET LOCATION AND POPULATION

To quickly reduce prevalence of the human infective parasite in Uganda and prevent overlap of the two strains of disease, interventions must be implemented rapidly and at scale. A total of 32 high risk districts and 18 lower risk districts would form the target area.

### OUTCOMES METRICS AND PROPOSED INTERVENTION

The aim of the programme would be to reduce the level of the human infective parasite in cattle – a strong proxy for reduction in the incidence of Rhodesian sleeping sickness in humans. It is envisaged that success payments would be triggered by:

1) Effective delivery of the mass treatment programme in years 1-3; and

2) A sustained reduction in the human infective parasite prevalence rate in cattle in years 4-8.

By triggering payments relatively early in the contract, the cost of capital can be minimised, offering better value for money for outcomes funders. Investors are rewarded partially for the operational risk they assume in delivering the cattle treatment programme, but are fully compensated for ensuring that the resultant impact on parasite levels is sustained – for example, through sustainability activates such as the establishment of a community based insecticide spray network to sustain reduction of the human infective parasite in cattle.

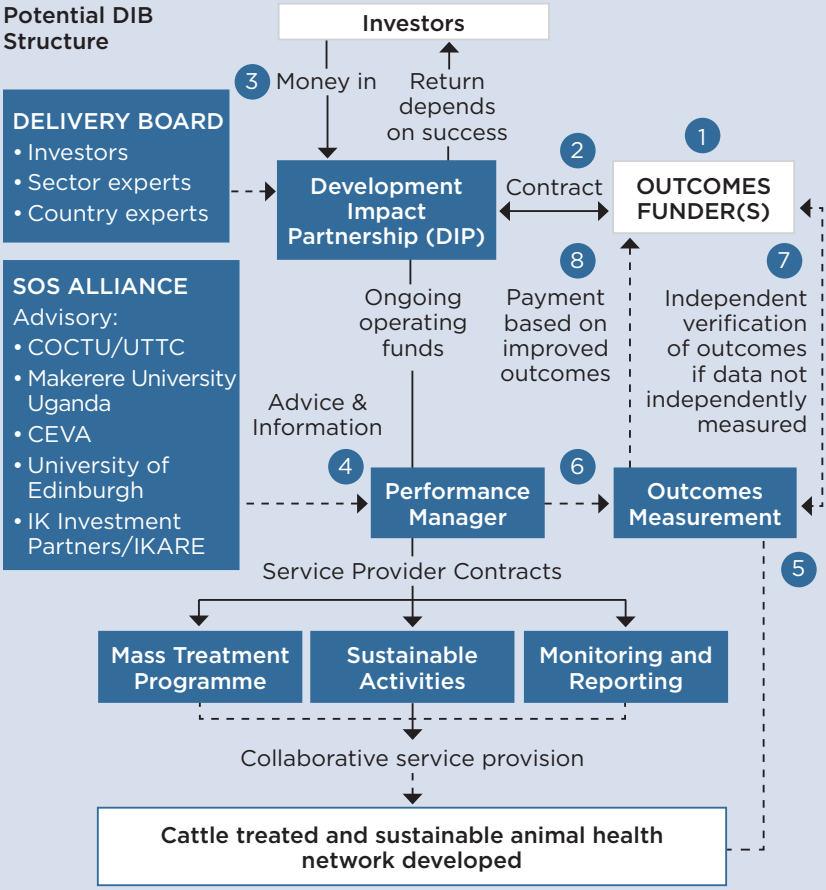
### DIB VALUE ADD

The DIB model differs from traditional aid approaches and other results-based approaches in a number of important ways. The following table highlights the value of applying a DIB in the context of reducing sleeping sickness in Uganda.

| | Value of a DIB | Other aid approaches |
|---|---|---|
| **Rapid scaling up of intervention requires a large large investment at the outset and significant operational and delivery risks** | To maximise the impact of the programme and prevent overlap of the two strains of sleeping sickness, the interventions have to be implemented at scale (mass treatment of 8 million cows across 50 districts in Uganda). Within a DIB structure, private investors provide the working capital necessary to roll out and scale up interventions before the two strains of disease merge. As a key part of sustaining reduction in the human infective parasite will be regular spraying of cattle with insecticide in the at-risk districts, investors not only take on the operational and delivery risk associated with a mass treatment intervention but also those associated with setting up sustainability activities to prevent reinfection of the cattle. Donors do not pay unless outcomes are successfully verified. | **Traditional Aid:** Although donors could directly fund interventions, they would have to pay regardless of whether or not the intervention was successfully delivered. To successfully sustain reductions in the human infective parasite, a flexible and innovative approach is required. A results based structure enables donors to transfer delivery risk to a third party (partner government, service provider or investor) better suited to manage this risk.<br><br>**RBA/RBF:** Other results-based approaches could be used to contract on an outcomes basis, however this would require access to working capital, which prevents participation by many, particularly smaller, service providers. |

| | | |
|---|---|---|
| **Large-scale and complex intervention requires successful stakeholder coordination** | The intervention has not previously been implemented at the proposed scale and success depends on coordination of multiple actors working together to achieve a common outcome. The DIB model offers a clear management and governance structure, with a specified DIB coordinator (e.g. a performance manager) having overall responsibility for bringing actors together to deliver the intervention. Detailed data management and analysis of service provider performance will ensure that delivery remains on track. | **Traditional Aid:** Although funding could potentially be provided through a number of traditional service contracts, success still relies on a number of individual stakeholders working together. There is limited incentive for them to do so in a traditional service contracts.<br><br>**RBA/RBF:** Other results-based approaches will not necessarily have a specified coordinating role, so getting multiple stakeholders to work together to deliver outcomes may still be a challenge. |

| | | |
|---|---|---|
| **Discipline in delivery crucial to achieving and sustaining desired outcomes** | A minimum number of cattle need to be treated to enable significant reduction in sleeping sickness cases. As payment back to investors is dependent on successful delivery, investors have a strong incentive to monitor performance and intervene if necessary to ensure effective delivery. This drives efficient and effective service delivery. The payment structure also creates investor incentive to sustain impact in later years. | **Traditional Aid:** Payment from donors in traditional service provider contracts is not necessarily dependent on ability to deliver interventions, nor success in achieving outcomes.<br><br>**RBA/RBF:** These approaches do not necessarily leverage the skills and expertise of the private sector to drive efficient and effective service delivery – an essential component for successful delivery in this example. |
| **Greater transparency around the impact of funding** | Outcomes would be independently verified before payments are released. This process is central to a DIB contract and ensures that outcomes funders only pay for outcomes which have been achieved. This mechanism should improve accountability in terms of development spending and outcomes achieved. | **Traditional Aid:** As traditional service provider contracts do not automatically require recording and verification of results, there is often limited understanding about the impact of development spending and outcomes achieved. |




1. **A range of potential relationships are possible between donor agencies and partner governments** - where donor agencies and partner governments co-fund the outcomes payments, they will both act as an Outcomes Funder
2. **Development Impact Partnership (DIP), a new corporate entity, contracts with Outcomes Funder(s)***
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6. **Performance manager reports additional management information and data to outcomes funders as appropriate**
7. **Independent verification of contracted outcomes/outputs**
8. **Outcome Funder(s) pay according to outcomes/outputs achieved**

Financial Flows
Information/Service Flows

* See section 3F for further details on DIB structures

## ROLE OF PARTNER GOVERNMENT

The cross ministerial body Uganda Trypanosomiasis Control Council (UTCC) (and its secretariat the Coordinating Office for Control of Trypanosomiasis in Uganda (COCTU)) has responsibility for coordinating sleeping sickness interventions and managing all related data in Uganda. As such, it would be important to ensure that the UTTC/COCTU are involved with the data collection and tracking process and well informed about operational developments to maintain coordination between different levels of government during the mass treatment intervention – for example this could range from ensuring continued ministerial buy-in to enabling coordination between district veterinary officers and local council members.

## POTENTIAL OUTCOMES FUNDERS

It is anticipated that donor agencies, like DFID, who have a long history of investing in understanding and piloting solutions to address Rhodesian sleeping sickness, would be the most likely bodies to pay for outcomes within this contract. While there is significant potential benefit to the programme in terms of both humans and livestock it is unlikely that this will be cashable in the short-term. A large part of the benefit of this programme would be avoiding potentially costly and catastrophic cross-over of the two sleeping sickness strains.

## POTENTIAL INVESTORS

Potential investors may include:

- Health and agriculture focused trusts and foundations
- High net worth individuals and Africa focused impact investment funds

**The Development Impact Bond Working Group would like to thank H20 Venture Partners and the DFID Research Into Use programme for their support in developing this case study.**

## Sleeping sickness: illustrative investor proposition

**Geography:** Uganda – 50 districts at risk of Rhodesian sleeping sickness

**Capital requirement:** $20-30m

**Range of outcome payments:** $0-40m

**Investment term:** 8 years

**Impact objectives:**

- Years 1–3: ≥65% of cattle in high risk districts treated
- Years 4–8: significant reduction in human infective parasite prevalence from Y0 baseline

Base case:

- Assumes that in Year 1, 85% of cattle treated in high and lower risk target districts and in Years 2 and 3, 85% of cattle treated in the high risk districts only;
- Assumes parasite prevalence reduced from 5% to 1.5%;[i]
- >80,000 DALYs averted;[ii]
- >$70m of social benefit (animal and human health).[iii]

**Payment mechanism:**
Payments at the end of years 1, 2 and 3 could be capped at the cost of intervention plus a modest return. Payments would be triggered by an independent audit of the cattle mass treatment programme. This recognises and rewards the significant operational risk in this phase of the programme.

Payments at the end of years 4-8 provide a risk-related return to investors in the event of success. Payments could be triggered by reductions in cattle parasite prevalence in high risk areas. This creates an investor incentive to sustain the impact of the mass cattle treatment programme.

**Threshold:** Delivery payments only triggered once 65% cattle treated in high risk districts

[i] Figures estimated based on Muhanguzi, Welburn, et al. (2013 in preparation); and the results of previous smaller scale interventions under the Stamp Out Sleeping Sickness campaign http://www.stampoutsleepingsickness.com

[ii] Figures estimated based on: Odiit, Coleman, Liu, McDermott, Fèvre, Welburn and Woolhouse, (2005); Fèvre, Odiit, Coleman, Woolhouse and Welburn, (2008); and Shaw, (2013 in preparation)

[iii] *Ibid.*

## CASE STUDY 2:
## Antiretroviral Treatment as Prevention of HIV and TB in Swaziland

Treatment as Prevention (TasP) could be a potentially revolutionary way to improve health outcomes for HIV-infected people and to reduce the number of new infections, saving both lives and scarce government resources. However, more evidence is needed to show if/how TasP could be implemented at scale and whether it could be a cost-effective way to help tackle the HIV crisis. Rolling out a TasP implementation study would require a significant front-loaded investment to test the intervention more widely. Given the global financial crisis and the levelling off of funding for HIV more generally, donors and local governments are interested but reluctant to fund outright before the model has been more widely tested. A Development Impact Bond could help mobilise the financing necessary to implement a TasP implementation study and test its scalability. Swaziland, which has the highest HIV prevalence rate in the world, shows potential as a good place to start.

### THE SOCIAL ISSUE

Despite remarkable progress in HIV treatment and prevention over the last decade, there were still an estimated 1.7 million AIDS-related deaths in 2011 and the global AIDS epidemic continues to spread more quickly than it can be treated,[17] with about two new HIV cases for every one person placed on treatment in 2009.[18] Furthermore, international funding for HIV has flat-lined, while costs continue to rise and patients require more sophisticated treatments.

Swaziland has the highest HIV prevalence rate in the world at 26% of the population aged 15-49 (approximately 200,000 individuals are estimated to be living with HIV).[19] Pregnant women are a particularly vulnerable population: 41% are HIV-positive. Swaziland also has the world's highest TB incidence rate per capita (1,317 cases per 100,000

17 UNAIDS, (2012).
18 Over, (2011).
19 UNAIDS, (2011).

people in 2011),[20] with escalating rates of multi-drug resistant TB and individuals co-infected with HIV.

To date, 80% of those individuals in need of treatment (as defined by the national guidelines) in Swaziland are receiving it and the government is committed to continuing to expand access to treatment.[21] This is a remarkable achievement given the scale of the epidemic in Swaziland and the current global financial crisis. Nevertheless, despite this success, estimates show that the number of new infections per year is still too high to turn around the epidemic without a new and significant intervention.

## THE OPPORTUNITY

Treatment as Prevention (TasP) is a new approach that has the potential to dramatically decrease the number of new HIV infections while improving the lives of individuals living with HIV – but one that has not yet been implemented at scale. TasP uses early anti-retroviral treatment (ART) to reduce morbidity and mortality among people living with HIV, as well as to prevent transmission.

Positive results from the groundbreaking HPTN 052 trial have caused many in the HIV/AIDS sector to regard TasP as an exciting new approach to improve the health of individuals living with HIV/AIDS and to reduce new HIV infections.[22,23] However, questions surrounding the feasibility and scalability of the approach still remain. For example, further work is needed to explore how TasP could be implemented within a national health system (e.g. analysing the effect of increasing ART patient numbers on other health services and looking at how TasP could work in combination with other HIV prevention strategies such as medical male circumcision) and assess the cost effectiveness and sustainability of the approach in specific country contexts.

20 World Bank, World Development Indicators, (2011).

21 UNAIDS, (2011).

22 HIV Prevention Trials Network, (2003).

23 Results from this trial demonstrated that early ART for HIV patients reduced transmission of the virus by 96% among heterosexual couples where one partner was infected and the other was not. Results from the same trial also demonstrated a 30% decrease in morbidity and mortality and an 83% reduction in the incidence of tuberculosis. Because of the potential of this approach to change the response to the AIDS epidemic, in 2011 Science magazine chose the discovery as its "Breakthrough of the Year".

## WHY IS A NEW FINANCING MODEL NEEDED?

Rollout of a TasP implementation study would require significant funding in advance. The MaxART programme in Swaziland (*Maximizing ART for Better Health and Zero New HIV Infections)*[24] which is being implemented through a consortium of partners with the support of the Ministry of Health (MOH) estimates that $10 million USD would be needed for an initial 3-year implementation study of TasP in a selected community in Swaziland. This would pay for the intervention costs, including mobilisation and testing activities, anti-retroviral medicines for individuals who will receive treatment earlier than currently prescribed, and research into the feasibility, acceptability and scalability of the approach. It would also cover costs associated with measuring outcomes and impact. If an implementation study proves successful in improving health outcomes and demonstrating a return on investment, an additional investment (not yet determined) would be needed to scale up TasP to all individuals living with HIV in Swaziland.

In addition, TasP is relatively new and untested at scale, making the funding of an implementation study difficult for donors to justify. Donors may be more willing to fund this approach if they are able to transfer some of the risks associated with implementation and scale-up to private investors, as they may be better suited than traditional donors to oversee the complex nature of coordination efforts and to manage performance and risks. A Development Impact Bond could provide the pre-financing needed to implement a TasP implementation study and enable the kind of risk transfer that could make it easier for donor funders to participate.

## TARGET LOCATION AND POPULATION

An initial 3-year implementation study is proposed, which would involve offering treatment to all individuals diagnosed with HIV in a selected community. This would involve a minimum sample size of approximately 3400 individuals enrolled on ART in the intervention community and the same number in a comparison community. If the implementation study is successful – and generates support for

24 *Max*ART is supported by a number of different partners including the Clinton Health Access Initiative (CHAI) and STOP AIDS NOW!, as well as the local and global Networks of People Living with HIV, University of Amsterdam, South African Centre for Epidemiological Modelling and Analysis (SACEMA), and Southern Africa HIV/AIDS Information Dissemination Service (SAfAIDS).

NOW MORE THAN EVER, PRACTICAL SOLUTIONS AND TECHNOLOGIES TO SOLVE THE WORLD'S SOCIAL PROBLEMS EXIST. DIBS CAN HELP ENSURE THAT THESE SOLUTIONS AND TECHNOLOGIES REACH THE WORLD'S POOREST.

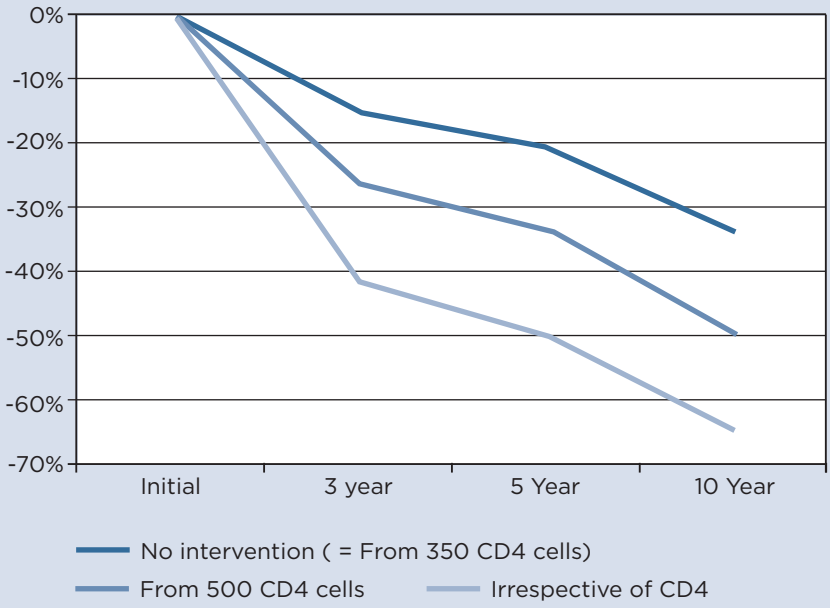
changing national policies, which would likely involve eliminating treatment thresholds and therefore putting more HIV-infected individuals on ART at an earlier stage – TasP could be scaled up nationally and treatment could be offered to all individuals diagnosed with HIV in Swaziland. At that point in time, estimates are that this would be approximately 100,000 additional individuals.

## POTENTIAL OUTCOME METRICS

A TasP DIB would aim to increase the proportion of HIV-positive individuals alive and on antiretroviral treatment and ultimately to reduce HIV incidence. Partners within *Max*ART are currently working to refine an epidemiological model for the country that projects both reductions in HIV incidence and reduced mortality. In addition to demographic data and assumptions about the nature of Swaziland's HIV epidemic, the model will take into account indicators linked to impact on transmission including: uptake of HIV testing, acceptance of ART, retention of individuals in care, and viral suppression.

Analysis from the MaxART team projects that as a result of continuing with the current national guidelines we would expect to see a reduction in HIV incidence of 34% over a 10 year period and that if we were to introduce treatment for all irrespective of CD4 cell count we would expect to see a 65% reduction over the same time period. Based on the actual incidence we measure at 10 years, the reduction in incidence for all as compared to the reduction in incidence for current situation can be seen as a 47% reduction (*Figure 4*).

**FIGURE 4. THIS PLOT MODELS HOW CHANGING THE THRESHOLD FOR TREATMENT COULD IMPACT ON HIV INCIDENCE REDUCTION IN SWAZILAND.**
**It shows the percentage reduction for three scenarios: treatment from 350 CD4 cells (current national policy), treatment from 500 CD4 cells and a Treatment as Prevention strategy (where treatment is given irrespective of CD4 cell count), keeping many of the other factors within the treatment continuum the same. The model – and therefore the estimated impact of the intervention – will continue to be updated as more is learnt about the different components of care and how they are impacted by a change in CD4 cell treatment threshold.**




**Source: SACEMA May 2013.**

It is expected that the model will be sufficiently sensitive to the impact of interventions to form the basis of a DIB contract, although further work will be needed. While there will be multiple prevention efforts on-going within the country, the model would enable an understanding of the estimated contribution of treatment to a reduction in new HIV infections. Investors and outcome funders would need to be comfortable that they were being adequately paid / paying only for the impact of DIB-funded activities.

It may also be desirable, in the implementation study phases, to measure the impact of the TasP programme on other outcomes for patients including indicators of treatment failure, mortality and TB infection rates.

## POTENTIAL INTERVENTIONS

An initial investment could fund:

### INNOVATIVE INTERVENTIONS TO OVERCOME CHALLENGES OF IDENTIFYING PEOPLE LIVING WITH HIV AND ENSURING THEY ARE RETAINED IN CARE AND TREATMENT:

One factor contributing to the HIV/AIDS crisis is that too many individuals do not know that they are HIV-positive and do not seek treatment until they fall ill and are highly infectious.[25] A TasP approach would involve a concerted effort to identify all individuals in a population living with HIV and offer them treatment upon diagnosis, with the goal of treating many more individuals at an early stage of the disease. Interventions could include community mobilisation efforts, home-based testing programmes, or developing systems for following up with people diagnosed with HIV who do not return for regular treatment.

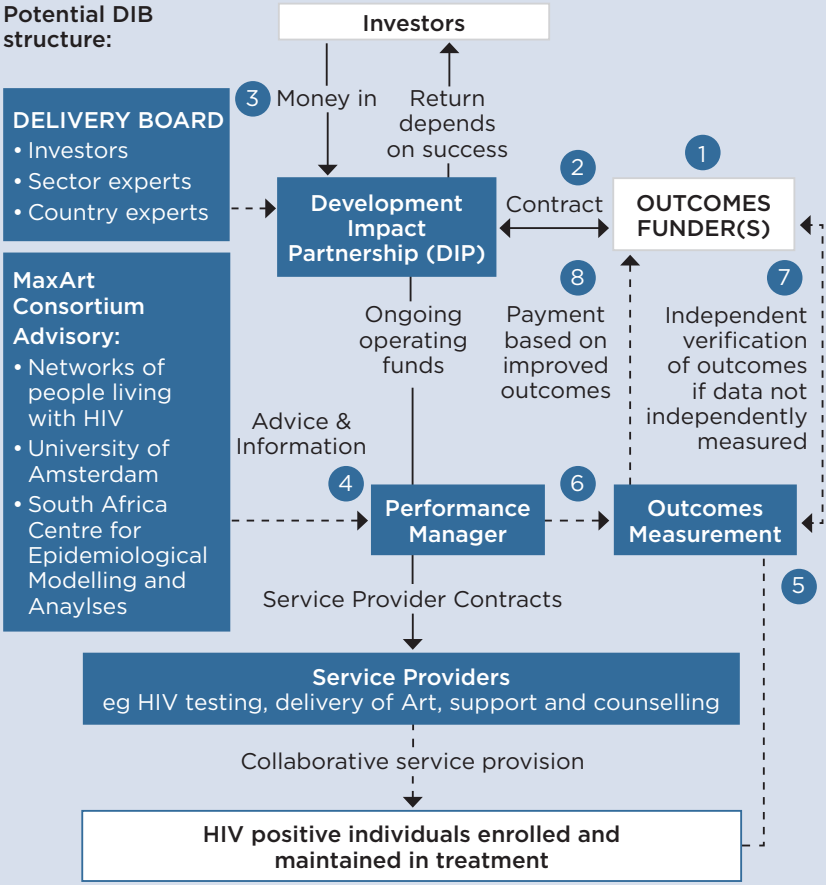
### TRAINING AND TECHNICAL ASSISTANCE FOR THE NEW CHALLENGES OF ROLLING OUT TREATMENT FOR PEOPLE AT EARLIER STAGES OF INFECTION:

Whilst there is some evidence from clinical trials demonstrating the potential impact of TasP on projected reduction in HIV incidence, limited practical experience identifying what is really required to implement earlier treatment within a government system currently exists. For example, there are potentially unique considerations in terms of the acceptability of treatment for individuals with HIV who are asymptomatic as well as additional challenges around retaining them on treatment. It will be essential to support Swaziland in responding to the specifics that arise, including training of HIV counsellors and nurses on how best to communicate new factors related to rolling out earlier treatment.

25 For example, despite substantial efforts to expand access to voluntary HIV testing, nearly 80% of HIV-infected adults in Sub-Saharan Africa are unaware of their status and more than 90% do not know whether their partners are infected with HIV, Granich, Gilks, Dye, De Cock and Williams, (2009). Effective TasP rollout would require innovative interventions to overcome some of the challenges associated with identifying HIV-positive individuals.

### OPERATIONAL COSTS OF INDIVIDUAL CLIENT CARE, INCLUDING ART AND LAB MONITORING:

One significant component of the investment is procuring ARVs for many more individuals both now and for their lifetime. The expectation is that this will enable Swaziland to get out in front of the epidemic – investing in treatment now so that there will be fewer new HIV infections each year, thereby reducing the people in need of treatment each year rather than adding them incrementally over time. As with most new interventions, it is essential to understand individual outcomes and to monitor a variety of different factors to ensure that the intervention is beneficial and is not causing harm. Due to the new nature of early ART, Swaziland will need to strengthen its laboratory monitoring systems to ensure it has the evidence it needs to understand the outcomes for individuals who start ART upon diagnosis.

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8. **Outcome Funder(s) pay according to outcomes/outputs achieved**

→ Financial Flows
- - - → Information/Service Flows

* See section 3F for further details on DIB structures

## ROLE OF THE PARTNER GOVERNMENT

The Government of Swaziland is leading efforts to employ new tools for HIV treatment and prevention, including this TasP implementation study. CHAI, the MaxART Consortium, and other partners in Swaziland, have been playing a strategic and technical support role to the government to strengthen the HIV response.

If outcomes funders and /or investors take interest in a DIB approach to solve any funding gaps in implementing TasP, they can explore with the Government its role in a DIB contract, for instance in design and management of the DIB or as a potential co-funder.

**How a Development Impact Bond structure could add value**

| | Value of a DIB | Other aid approaches |
|---|---|---|
| **TasP roll-out requires significant investment at the outset** | An estimated $10 million would be needed to roll out an initial 3-year implementation study of TasP in Swaziland. With a DIB, private investors could provide the working capital necessary to roll out the study and as donors only pay for success, investors assume risks associated with implementation, innovation and delivery which donors are less able to control and manage. Because the repayment of their principal plus a financial return is tied to successful delivery of the programme, investors would be incentivised to put in place the performance management systems necessary to manage these risks and ensure efficient and effective delivery of the project. | **Traditional Aid:** Although an implementation study could in theory be directly funded through traditional aid, uncertainties surrounding the scalability of the intervention have deterred potential funders, especially given the size of the investment required. If funded through a traditional input-based model, donors and/or governments would have to pay regardless of whether or not the interventions are successful (for example in increasing uptake of testing, treatment, retention, viral suppression etc.), thus potentially making it too risky for donors and/or governments to justify funding on their own.<br><br>**RBA/RBF:** Other results-based approaches, while focused on outcomes, would require service providers, or the Government of Swaziland, to fund the implementation study upfront. Service providers – particularly the smaller ones – are often unable to assume such risks; even if they could, they often find it difficult to secure commercial working capital loans due to uncertainties surrounding their ability to repay such loans. Although the Government of Swaziland could co-fund outcomes, it is unlikely to be able to fund (and assume risk) for a programme of this size on its own. |

| | | |
|---|---|---|
| **Discipline in delivery is crucial to achieving and sustaining desired outcomes** | By linking private investor returns with desired outcomes, a DIB could introduce a strong incentive towards cost control, intervention effectiveness and outcome delivery, usually through a coordinating agency. As outcomes are independently evaluated before payments are released, a DIB could also increase transparency around the impact of funding. | **Traditional Aid:** Insufficient information about which interventions work and which service providers are effective in delivering results limit donors' ability to drive discipline in delivery. Moreover, because donors pay regardless of whether or not the intervention succeeds, there are insufficient incentives to measure and track outcomes. |

| | | |
|---|---|---|
| **Reducing HIV incidence through TasP requires successful coordination of a complex mix of interventions tailored to the local context** | Successful implementation of TasP to ensure positive outcomes for HIV positive individuals and the broader population, including a reduction in new infections, requires coordinating a mix of interventions such as: diagnosis of people living with HIV,[i] ensuring acceptance and uptake of earlier treatment, retaining all individuals in care and treatment,[ii] and maintaining adherence to lifelong treatment.<br><br>This requires an integration of community and facility-level interventions, a focus on specific individual client care, establishing robust systems within the health system, and understanding behaviour and perceptions of earlier treatment. Through the performance manager, hired by investors to oversee operational delivery of the intervention(s), the DIB structure provides a flexible coordinating mechanism which helps stakeholders work together to achieve common outcomes, creates incentives to collect and react to performance management data, and brings flexibility to the intervention approach, allowing for change and adaptation to improve programme efficiency and effectiveness. | **Traditional Aid:** Traditional aid models are often highly prescriptive, inhibiting service providers' ability to tailor solutions to local contexts.<br><br>**RBA/RBF:** Even though RBA/RBF approaches are similarly focused on outcomes, they do not necessarily employ a coordinating agency singularly focused (and incentivised) on achieving outcomes. |

## WHAT MIGHT THE INVESTOR PROPOSITION LOOK LIKE?

Returns to investors would initially be based on interim metrics of testing, treatment, retention and viral suppression, which assist in estimating the reduction in new HIV infections over the 3-year implementation study, as well as projecting the potential impact of new HIV infections on a national level, if scaled up. It may also be possible to base payments on improved health outcomes for existing HIV positive individuals.

Because HIV creates economic as well as societal burdens (for example, orphaned children, marginalisation of people living with the virus, as well as significant hospitalisations for related infections), there are potential significant reductions in future financial burdens as well as quantifiable social savings to be gained from providing earlier ART.

The value of outcomes could be based on some combination of estimated future financial savings (from reduced HIV-related mortality and morbidity, and associated medical costs including inpatient care), and quantifiable social benefits (such as DALYs averted or a nominal value of a healthier, more productive workforce). Investors and outcome funders would have to be confident that gains can be attributed to the TasP approach in order for the strategy to be considered successful and worth bringing to scale.

**The Development Impact Bond Working Group would like to thank CHAI for its support in developing this case study.**

i For example, despite substantial efforts to expand access to voluntary HIV testing, nearly 80% of HIV-infected adults in Sub-Saharan Africa are unaware of their status and more than 90% do not know whether their partners are infected with HIV. Effective TasP rollout would require innovative interventions to overcome some of the challenges associated with identifying HIV-positive individuals.

ii In order for TasP to be effective in reducing HIV transmission and to avoid problems related to drug resistance, patients must adhere to a strict drug regimen over the course of a lifetime. This can be challenging, particularly among people who show no symptoms of HIV (usually in earlier stages of infection), especially if patients show adverse effects related to medication. Effective TasP scale-up would therefore require careful programme monitoring to ensure high levels of adherence, while at the same time guarding against coercion or infringement of human rights.

## CASE STUDY 3:
## Low Cost Private School Sector in Pakistan

### THE SOCIAL ISSUE:

Pakistan is home to one in ten of the World's out of school (OOS) primary aged children.[26] It is the country with the highest share of OOS children in South Asia, with UNESCO estimating in 2005 that as many as 8 million of its almost 20 million primary school-aged children (or 40%) were out of school. The dropout rate is also extremely high; it is estimated that only 1% of children entering kindergarten in Karachi will graduate from secondary school.[27]

Low cost private schools are an integral part of Pakistan's education system comprising about 25–35% of enrolment and are increasingly a first choice for many poor families.[28] Research has shown that the cost adjusted for quality (the cost per percentage correct in a test) of educating children is three times higher in government than in private schools. By the time children in private schools are in class three, they are 1.5–2.5 years ahead of government school students. The government-private learning gap in Urdu is 18 times the learning gap between children with literate and illiterate mothers. Yet, as observed by Lina Vashee of Dalberg last year, there remain many complications, including *"a fragmented, highly rural customer base, pervasive poverty, and unclear returns on educational investments."* [29]

Low cost private schools in Pakistan – run by owner-entrepreneurs responding to local needs who charge between $2-$20 per student per month – have demonstrated that even low income families value and are prepared to pay for quality education for their children and will vote with their feet if they do not believe schools will offer their children the chance of a better future.

However, there remains much to be done in terms of both the availability and quality of education delivered by low cost private schools. With better access to finance, the low cost private school sector could potentially offer a scalable and sustainable solution to education in Pakistan.

26 World Bank, World Development Indicators, (2010)
27 Pakistan Education Task Force, (2011)
28 Figure of 23.1% students enrolled in private schools from ASER, (2011; Figure of 34% from Government of Pakistan and USAID, (2011)
29 Vashee, (2012 June 8)

**FIGURE 5. ENROLMENT FOR CHILDREN AGED 5–9 (%) IN PUNJAB PROVINCE**


## THE OPPORTUNITY – WHY IS A NEW FINANCE MODEL NEEDED?

Low cost private schools in Pakistan are micro-businesses operated by local entrepreneurs and generally operate on a fairly healthy financial basis in terms of their cashflow.[30] Low operating costs mean that adding additional children is profitable (10-20% margins) meaning that expansion can make the overall school more sustainable. Nevertheless, these schools have historically struggled to access the capital they would need to expand and improve their facilities to meet unmet demand.

The returns to investment in education are often regarded as too uncertain to attract mainstream lenders into the market. At the same time,

30 International Finance Corporation & the State Bank of Pakistan, (2011)

donors can be unwilling to lend to low cost private schools without a mechanism for accountability in terms of the resulting education access and quality. While lack of access to capital is not the only constraint on these schools, if the overall profitability could be raised, many of the other constraints, like hiring teachers and improving textbooks, could be addressed.

Development Impact Bonds could potentially be used to create a low cost private school loan fund to significantly improve access to investment capital for low cost private schools while also creating an incentive to ensure education access and quality for low income populations.

If the Pakistani government and / or donor agencies were willing to pay for improved education outcomes in terms of access and quality, this could be used to provide full or partial loan forgiveness to schools borrowing from the facility providing they meet the key education outcomes.

Such a model would potentially be attractive to low cost private schools, donor agencies and potential investors:

- Low cost private schools would have both access to capital and the potential to expand sustainably if they deliver improved education outcomes;
- Donor agencies have a mechanism for impact accountability and avoid the potential tension between picking winners and ensuring funds are well spent; and
- Potential investors would not be so reliant on ensuring that their investment generated a sufficient uplift in profitability to return their investment as delivery of education outcomes could trigger an alternative means of getting their capital back.

| | Value of a DIB | Other aid approaches |
|---|---|---|
| **Payment structure provides access to finance and incentives to focus on quality of education delivered** | Low per pupil operating costs often mean that once schools have basic infrastructure and learning resources in place they are able to operate with healthy cashflows. However, to expand, they need working capital, something which is often difficult for them to access. A DIB could be used to raise investment for private school investment funds which could provide small loans to be repaid by donors on the meeting of educational outcomes.<br><br>Investor returns could be fully or partially tied to quality outcomes for the schools receiving investment to improve the accountability of such schools and help to incentivise the delivery of high quality education. | **Traditional Aid:** Although funding could potentially be provided upfront by donors, they would have to pay regardless of whether or not educational outcomes such as quality education were successfully delivered. Thus, there are insufficient incentives to focus on results.<br><br>**RBA/RBF:** Other results-based approaches could be used to contract on an outcomes basis, however this would still require access to working capital, which the majority of low cost private schools lack. The DIB model provides a way for low cost private schools to access working capital to support their growth and development. |

## TARGET LOCATION AND POPULATION

Illustrative target location and population: Punjab province, Pakistan. Primary age children from low income families, particular focus on hardest to reach areas (south Punjab/rural areas with low quality of education).

The proposed approach allows targeting specific sub-regions for specific challenges (eg. South Punjab for a $10-30m programme). This could also leverage and build on the existing infrastructure for support and

quality assurance testing of the low cost private school sector in Punjab. A DIB structure, for instance, could be used in parallel with or through the Punjab Education Fund (see case study box).

### OUTCOMES METRICS:

It is envisaged that success payments would be triggered by desired education outcomes such as school capacity, attendance rates and learning outcomes.

**Case Study: Punjab Education Foundation (PEF)**

Established in 1991 as an autonomous statutory body to encourage and promote education in the private sector, the PEF receives money from the Punjab Government and the World Bank and DFID for its programmes.

Through its Foundation Assisted Schools (FAS) programme, schools are given student subsidies of PKR350 – PKR400 for primary and secondary school students on the condition that they offer free education to all students & that they achieve a minimum student pass rate of 67% on the Quality Assurance Tests (QAT). Bonuses are awarded to teachers and schools with the highest pass rates, as further incentive to improve the quality of the education they provide. This programme currently assists over 1,300 schools, reaching approx. 600,000 students. A World Bank impact assessment of the programme suggested it is one of the cheapest programmes for increasing enrolment in the developing world.

Through its Education Voucher Scheme (EVS), children aged 4–17 years from poorest families to get free education in the nearest (PEF EVS) private schools of their own choice. In March 2008 it had enrolled 10,000 low-income students in 52 private schools.

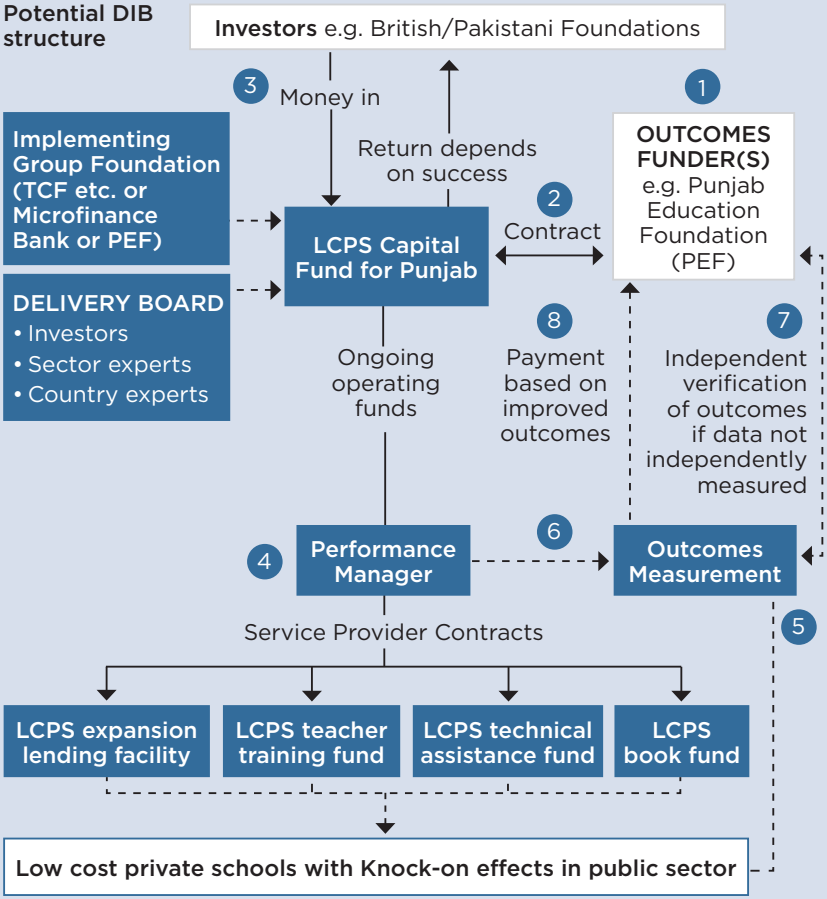
PEF supported schools have seen significant increases in the number of students and schooling inputs, improved gender ratios and low dropout rates.

**PEF has three primary objectives...**

- Promote quality education through Public Private Partnerships
- Encourage and support the efforts of private sector through technical and financial assistance
- Innovate and develop new instruments to champion wider educational opportunities at affordable cost to the poor

**...which it achieves through innovative and efficient operating principles**

| | |
|---|---|
| **Low cost education** | • Average cost of Rs.400 per student much lower than traditional programmes (1/3rd as compare to Govt)<br>• No upfront cost of setting up new schools (e.g. infrastructure) |
| **Superior targeting** | • Mechanisms to ensure that subsidies are extended to the most deserving (e.g. out of school and high risk) children |
| **High quality outcomes** | • High quality outcomes maintained and demonstrated by regular testing for students (though bi-annual QATs) |
| **Monitoring & evaluation** | • Close monitoring of participating schools. Internal and external audits of PEF to ensure transparency |
| **Practical application** | • Add-on programmes to provide vocational training and help provide employment |




1. **A range of potential relationships are possible between donor agencies and partner governments** - where donor agencies and partner governments co-fund the outcomes payments, they will both act as an Outcomes Funder
2. **Capital Fund for Punjab (a new corporate entity) contracts with Outcomes Funder(s)***
3. **Investors provide upfront financing to LCPs Capital Fund for Punjab**
4. **LCPS Capital Fund for Punjab funds and manages service providers to generate outcomes -** performance manager hired by DIP to work-in-country
5. **Measurement and reporting of contracted outcomes/outputs either by the LCPS Capital Fund for Punjab or by an independent third party as appropriate**
6. **Performance manager reports additional management information and data to outcomes funders as appropriate**
7. **Independent verification of contracted outcomes/outputs**
8. **Outcome Funder(s) pay according to outcomes/outputs achieved**

→ Financial Flows
- - - → Information/Service Flows

* See section 3F for further details on DIB structures

| Low cost private schools: investor proposition | |
|---|---|
| **Geography** | Pakistan |
| **Capital requirement** | $25 million |
| **Investment term** | TBD |
| **Impact objectives** | Assume standard loan per school of $5,000.<br>There are 47,000 LCPS in Punjab province. PEF is currently working with 2,400 and is expanding progressively. We assume that 5,000 schools could be eligible for a DIB facility.<br>• School classes added 5,000<br>• Number Children per class 35<br>• Impact: 175,000 new school places created<br>**$143 Cost per child per sustainable education place created**<br>**Additional impact on education outcomes tbd** |

**The Development Impact Bond Working Group would like to thank Lion's Head Global Partners for its support in developing this case study.**

## CASE STUDY 4:
## Access to Quality Secondary Education in Uganda

### THE SOCIAL ISSUE: INSUFFICIENT SUPPLY, POOR QUALITY OF EDUCATION

Uganda introduced free universal primary education in 1997, driving net enrolment in primary schools to 97% in 2011.[31] Ten years later, Uganda became the first country in sub-Saharan Africa to introduce universal secondary education, free to any child who passes the Primary Leaving Examination. However, the capacity of the Ugandan secondary school system is not currently sufficient to enable access to all eligible children; a lack of schools - particularly in rural areas - and limited infrastructure in existing schools,[32] mean that transition rates for pupils leaving primary education and entering secondary education remain around 65%.[33] Overall, an estimated 75% of secondary school-aged children in Uganda are not enrolled in a secondary school.[34] Secondary enrolment rates are lowest among girls and young people from rural areas. Approximately 50% of Ugandans are under 17 years old; without action, insufficient supply of secondary school places will be a growing problem.

For those students who are enrolled in secondary school, education quality is an issue. For instance, 75% of students in the 2011 Ugandan Certificate of Education exams failed chemistry and 50% failed Biology. It is clear that the creation of physical secondary school places is a necessary but insufficient condition for improving education outcomes. Resources must be focused on improving both.

Investing in increasing the availability and quality of secondary education in Uganda gives children access to the knowledge and skills that lead to improved social outcomes. Secondary education has been shown to contribute not only to individual earning and economic growth, but also improvements in health, equity and social conditions.[35] A Development Impact Bond could provide the funding needed to address challenges that are preventing students from continuing school beyond the primary level and receiving a quality education.

31 UNESCO Institute for Statistics, (2011)
32 James and Gerretsen, (2012)
33 UNESCO Global Education Digest, (2012)
34 ARK website http://www.arkonline.org/education/uganda
35 World Bank, (2005)

## THE OPPORTUNITY – WHY IS A NEW FINANCE MODEL NEEDED?

One of the key drivers behind the insufficient number of affordable secondary school places in Uganda is a limited supply of capital to build or expand secondary schools. International attention and most donor funding in the education sector has gone towards supporting universal primary education, this has meant a lack of focus and consequently a lack of supply of affordable places in secondary schools.

The Ugandan government currently provides payments of around £10 - £11.50 per eligible pupil per term to government and private schools that provide universal secondary education. Within these tight margins, funding to invest in school capacity, facilities and staff training is limited, as is the potential to repay borrowed capital while keeping fees affordable. Despite the need for start-up funding, donors can be reluctant to fund the construction of schools without evidence that students will attend and receive a quality education.

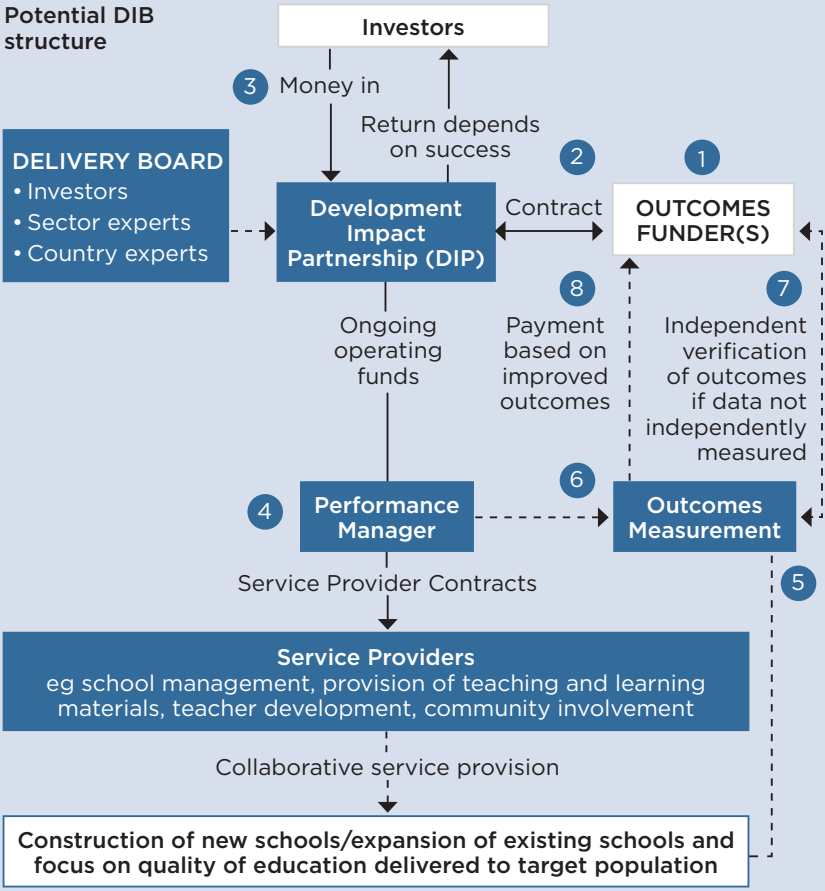
In addition to overcrowded schools and classrooms resulting from the introduction of free universal secondary education, a number of factors undermine the quality of education students receive, including: insufficient teaching and learning materials, poor teacher quality, absenteeism, poverty among students and problems with school management and supervision. Development Impact Bond financing could help to build the capacity of Uganda's secondary school system in terms of physical infrastructure while creating incentives to provide quality education.

**The value of a Development Impact Bond**

| | Value of a DIB | Other aid approaches |
|---|---|---|
| **Creation of school places requires significant investment in education infrastructure and training** | The number of secondary school places in Uganda is insufficient to meet demand and in many cases the quality of education delivered is poor. Many donors are reluctant to fund the construction of school infrastructure without the certainty of improving educational outcomes; however, the expansion of access to secondary education requires a large investment which the government is currently unable to provide.<br><br>A DIB could help to address this problem by aligning payment for school construction with educational outcomes such as exam marks or number of school completers and spreading the cost of repayment to investors over time as education outcomes are verified. | **Traditional Aid:** Although donors could provide funding for the creation of additional secondary school places independently, this would be at significant cost and without any guarantee that the investment would translate into the achievement of educational outcomes. RBA/RBF and DIB models ensure a focus on results which traditional aid – with its focus on inputs – often does not do.<br><br>**RBA/RBF:** Other results-based approaches such as RBA/RBF do ensure a focus on meeting outcomes; however, to address the undersupply of secondary school places, service providers (or the government) would be required to provide (and thus assume risk for) funding to spend on education infrastructure and training. Service providers – particularly smaller ones – often find it difficult to assume such high levels of risk, and/or secure commercial working capital loans (even if they were willing/able to assume such risks) due to uncertainties surrounding their ability to repay. |

| | | |
|---|---|---|
| **Improving educational outcomes requires the coordination of a range of targeted interventions and flexibility in the way that they are delivered** | Achieving educational outcomes, particularly among underserved and poor, rural communities, requires a range of targeted interventions tailored to the local context (such as school construction, provision of teaching and learning materials, teacher development, school management and community involvement etc.) to overcome poverty-related barriers, improve teacher quality and address resource/ space constraints. A DIB structure offers a way to coordinate service providers and other stakeholders, ensuring that they are able to work together effectively to deliver locally-appropriate interventions.<br><br>Due to the need to monitor and measure outcomes to trigger payments, a DIB structure also provides the performance oversight which enables service providers to assess their progress and monitor the effectiveness of the services they deliver. As payments back to investors are based on outcomes rather than inputs, this structure also provides the flexibility to adapt intervention models based on real-time progress on the ground. | **Traditional Aid:** Traditional service contracts are often highly prescriptive, inhibiting service providers' ability to tailor solutions to local contexts. A focus on inputs often means that service providers lack the incentive to monitor progress and measure outcomes achieved –donors pay regardless of how the intervention is delivered.<br><br>In addition, traditional service contracts provide limited incentives for providers to work collaboratively even though this is often what is needed to ensure that positive social outcomes are achieved.<br><br>**RBA/RBF:** Although focused on outputs and outcomes, current results-based approaches do not automatically provide a coordinating structure to manage activities and enable multiple service providers to work collaboratively even though this may be the most effective way to tackle complex social problems. This means that by engaging in results-based contracts which require multiple interventions (and service providers) to achieve results but do not provide upfront capital, service providers also take on the risk of others delivering their interventions efficiently and effectively to achieve the common results on which payment is based. |

**Potential DIB structure**




1. **A range of potential relationships are possible between donor agencies and partner governments** - where donor agencies and partner governments co-fund the outcomes payments, they will both act as an Outcomes Funder
2. **Development Impact Partnership (DIP), a new corporate entity, contracts with Outcomes Funder(s)***
3. **Investors provide upfront financing to DIP**
4. **DIP funds and manages service providers to generate outcomes -** performance manager hired by DIP to work-in-country
5. **Measurement and reporting of contracted outcomes/outputs either by the DIP or by an independent third party as appropriate**
6. **Performance manager reports additional management information and data to outcomes funders as appropriate**
7. **Independent verification of contracted outcomes/outputs**
8. **Outcome Funder(s) pay according to outcomes/outputs achieved**

→ Financial Flows
- - - → Information/Service Flows

* See section 3F for further details on DIB structures

## TARGET LOCATION AND POPULATION

To ensure greatest impact, a DIB could focus on targeting secondary school provision for lower secondary school children in underserved poor and rural areas, and those with low primary to secondary transition rates.

## POTENTIAL INTERVENTIONS

A DIB could channel private investment to expand secondary school capacity in public or low cost private schools. This investment could cover the costs of the necessary inputs for quality secondary education that the government of Uganda cannot afford on its own. These inputs could include capital investment to establish new non-profit or low fee private schools; to expand and improve facilities in existing public or low fee private schools; to improve the quality of education through teacher training and/or school leadership development; and to remove poverty-related barriers to education, perhaps through income generating activities, life-skills training and/or nutritional programmes. Interventions would be aimed at increasing the number of primary school graduates attending secondary school and receiving a quality education.

Donor and investor commitment to such a programme may be predicated on a commitment from the Ugandan government to continue providing per pupil funding sufficient to cover school running costs on an on-going basis.

## OUTCOMES METRICS

Creation of secondary school places is necessary, but not sufficient for improving education outcomes. Because financial returns are tied to achievement of educational outcomes, a DIB could create a strong incentive for investors to work closely with service providers and schools – most commonly through a performance manager – to improve education quality. Potential metrics include:

- Increased number of secondary school places resulting from DIB investment – linked to school attendance and potentially verified through unannounced school visits by an independent evaluator; and
- Level of UCE (lower secondary) exam results in DIB funded schools achieved, relative to historical district-level performance.

## ROLE OF THE PARTNER GOVERNMENT

The government of Uganda could be engaged in the development of the DIB contract in several possible ways if desired, including:

- Defining the target group for interventions (e.g. by income level, region, gender, etc.);
- Agreeing the desired programme outcomes to ensure that they are in line with national development goals;
- Committing to provide long-term, sustainable funding for school places so that they can continue to offer a high quality of education at the end of the DIB contract; and
- Contributing towards outcomes payments in partnership with donor agencies.

## WHAT MIGHT THE INVESTOR PROPOSITION LOOK LIKE?

The scale of investment and investor risk would vary significantly according to the payment structure used to implement a DIB programme in this area. Payments based on completion of an output, such as schools built, are far less risky for investors than payments based purely on educational outcomes, such as exam results, which are harder to achieve and depend on a variety of factors. To make the investment proposition an attractive one, for both investors and outcomes funders, the triggers for success payments would need to take into account the nature of risk transfer in delivering the desired outcomes.

One possibility would be to make repayment of a proportion of investor principal subject to the successful delivery of outputs, such as new schools built, with remaining investor payments triggered after outcomes such as quality-based education metrics are independently measured/verified. This would help to keep the cost of capital lower by starting repayments earlier than under a model where all repayments are triggered by outcomes. Investors would still be incentivised to ensure – for example, through a performance manager – school attendance and high quality education because a positive return on their investment would still be linked to achievement of these outcomes.

| Secondary education in Uganda: Illustrative investor proposition | |
|---|---|
| **Geography:** Uganda | |
| **Capital requirement: £23m** | |
| **Range of outcome payments:** £23 - £35m | |
| **Investment term:** 10 years | |
| **Impact objectives** | Impact objectives:<br><br>Physical building/facilities<br>• Construction of 50 new schools Y1-4<br>• 750 additional student places in each new school<br><br>Quality and enrolment<br>• Enrolment and quality outcome metrics for target schools |
| **Assumptions** | • Assumes repayment of principal with a 3% IRR on basis of school attendance<br>• Assumes additional return of up to 5% IRR based on above baseline UCE exam results – additional 50% of quality payments given to providers as performance incentive<br>• Total investor returns of 8% IRR has been held constant across scenarios, inflation 3% |

**The Development Impact Bond Working Group would like to thank PEAS for its support in developing this case study.**

## CASE STUDY 5:
## SME Pipeline Generation and Value Creation

### THE SOCIAL ISSUE:

Small and Medium Enterprises (SMEs) occupy an important place in virtually every country or state. Because of their significant roles in the development and growth of various economies, they have often been referred to as "the engine of growth" and "catalysts for socio-economic transformation of any country."[36]

In recognition of this, donor agencies currently spend hundreds of millions of dollars a year funding business development services (BDS) for small and medium sized enterprises (SMEs) in developing countries, but have little certainty around their impact in terms of supporting local organisations to access finance and grow their businesses.

At the same time, impact oriented investors and funds can struggle to source high quality deals and find it uneconomical to support and manage investments into SMEs.

### THE OPPORTUNITY – WHY IS A NEW FINANCE MODEL NEEDED?

A critical issue impeding the scale of impact investing is a lack of viable investment pipeline as investors cannot put forth the time and money necessary to complete due diligence for small scale deals. As it is uneconomical to complete the preparations for projects in the $50k–$500K range, many strong investment opportunities go unsupported and few enterprises of this size reach their full potential.

Local Business Development Service (BDS) Providers are an efficient channel for sourcing these opportunities for investors. However, BDS Providers frequently lack the balance sheet and credit strength required to attract the commercial working capital necessary to provide capacity development and investment readiness services at a significant scale. Investors could invest in a DIB that would flow through Support and Performance Managers to selected BDS Providers to provide to viable SME opportunities. Investors would also benefit from having a better funded SME pipeline generator to identify and support more successful businesses with greater potential investment returns.

[36] Ogbo, (2012)

Using a Development Impact Bond model, rather than traditional donor contracts, to finance BDS Providers could:

- Create a market-driven approach to foreign assistance; and
- Compel the impact investment community to invest in their own market infrastructure.

An investor-backed fund to pay for business development services, with outcome payments triggered if BDS providers support local businesses to raise and repay third party finance could increase the availability of investible opportunities, create a recycling mechanism for technical assistance funds and, potentially, reduce the transaction costs of small deals to investors

| | Value of a DIB | Other aid approaches |
|---|---|---|
| **Expanding BDS support requires access to working capital** | Existing BDS providers are capital constrained and are an often overlooked component of the market infrastructure. Without an initial investment and working capital they are unable to participate in outcomes-based contracts. A DIB could provide this investment. | **RBA/RBF:** Other results-based approaches could be used to contract on an outcomes basis, however this would still require access to working capital which many BDS providers lack. |
| **Investor oversight provides better targeting of resources** | Involvement of investors in deciding which BDS to fund (typically via a representative e.g. an intermediary or performance manager hired by investors) helps focus investment into BDS with highest potential to deliver outcomes. In addition, outcomes-based payments to BDS also incentivise them to target their support at SMEs that would be attractive to investors. | **Traditional Aid:** Existing donor funding for business development services is not allocated on an outcomes basis and its impact is poorly understood. A DIB model offers the opportunity for outcomes funders to pay only for outcomes in terms of investments made into SMEs and the performance of those SMEs further down the line. |

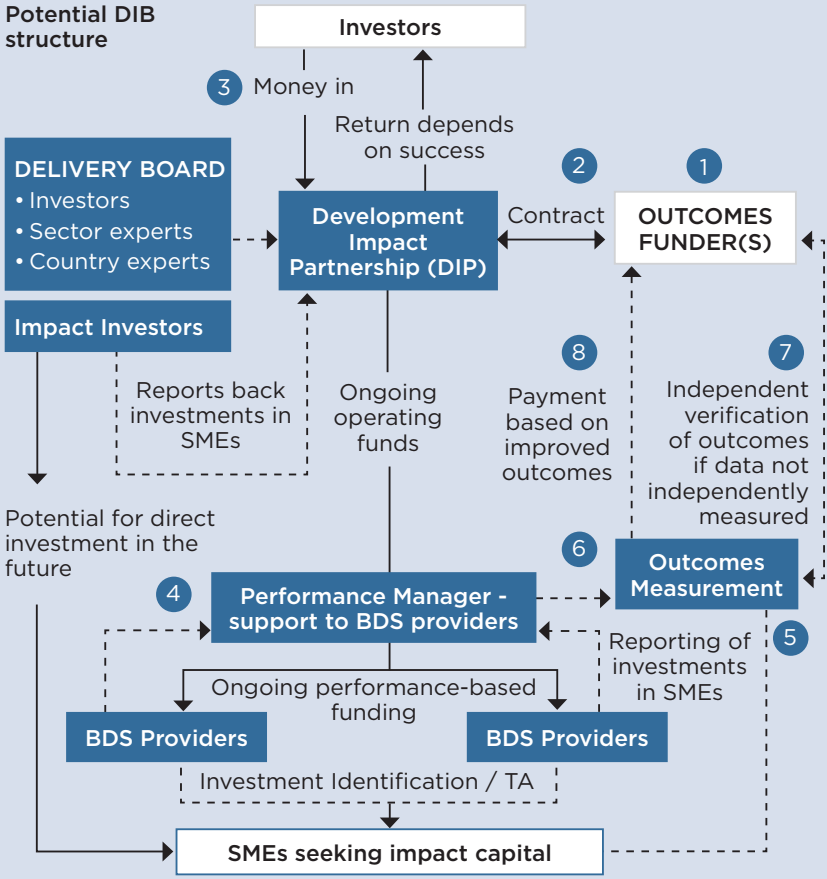
| | | |
|---|---|---|
| **Outcomes focus incentivises higher quality service delivery from BDSs** | Because investors' returns (and repayment of principal) are tied to the ability of BDSs to improve SME investment readiness, they are incentivised to ensure that BDSs provide the highest quality services. | **Traditional Aid:** Although funding could potentially be provided by donors, this reduces the incentive for BDS providers to continue providing support to SMEs past the initial investment. |

## OUTCOMES METRICS:

These could be measured in two parts:

- The first measurement for success would be the investment of capital into SMEs identified by the BDS Provider;
- The second measurement of success would be the performance of the SMEs and the returns achieved on the Impact Investor capital.

The first metric would create a strong incentive for BDS Providers to target their support to businesses that would be attractive to investors. The second metric would create an incentive for BDS providers to continue their support to SMEs receiving investment, potentially making smaller investment deals more attractive to investment funds by reducing the costs associated with ongoing support.




1. **A range of potential relationships are possible between donor agencies and partner governments** - where donor agencies and partner governments co-fund the outcomes payments, they will both act as an Outcomes Funder
2. **Development Impact Partnership (DIP), a new corporate entity, contracts with Outcomes Funder(s)***
3. **Investors provide upfront financing to DIP**
4. **DIP funds and manages service providers to generate outcomes -** performance manager hired by DIP to work-in-country
5. **Measurement and reporting of contracted outcomes/outputs either by the DIP or by an independent third party as appropriate**
6. **Performance manager reports additional management information and data to outcomes funders as appropriate**
7. **Independent verification of contracted outcomes/outputs**
8. **Outcome Funder(s) pay according to outcomes/outputs achieved**

Financial Flows
Information/Service Flows

* See section 3F for further details on DIB structures

There are 5 actors that will play key roles in the DIB transaction:

| Actor | Role |
|---|---|
| **SMEs** | • Identified by BDS Providers as a potential investment opportunity for Impact Investors based on specific screening criteria<br>• Receive investment proceeds from Impact Investors (both those involved with the DIB and outside Investors)<br>• Channel investment returns to Impact Investors |
| **BDS providers** | • Create pipeline of investment-ready SMEs<br>• Use DIB proceeds to increase breadth and scale of services provided to SMEs and increase pipeline for impact investors<br>• Provide technical assistance to SMEs during the investment period to create value and increase potential investment returns |
| **DIP providing performance management and support to BDS providers** | • Syndicates the DIB to a group of qualified investors interested in financing the growth of local BDS Providers<br>• Provides reporting details to DIB Investors and Development Agencies<br>• Overseeing the selection of BDS Providers that generate the SME Pipeline<br>• Receives DIB and manages payments to BDS Providers based on performance criteria |
| **DIB/ Impact Investors** | • Identifies BDS Providers Support and Performance Managers to receive DIB proceeds (jointly with Development Agencies)<br>• Invests in DIB which will be used to capitalise BDS Providers Support and Performance Managers<br>• Most DIB Investors will also act as Impact Investors that invest in SMEs identified by BDS Providers<br>• Impact Investors will report investments in SMEs to BDS Providers Support and Performance Managers<br>• Receives repayment of DIB interest from BDS Providers based on performance of SMEs<br>• Receives investment reports from the Trustee regarding the performance of the BDS Providers |

| | |
|---|---|
| **Outcomes Funder(s)** | • Identifies BDS Providers Support and Performance Managers to receive DIB proceeds (jointly with Impact Investors)<br>• Reviews performance reports sent from the Trustee<br>• Repays the DIB Impact Investors based on successful performance criteria |

| Business Development Services – Illustrative investment proposition | |
|---|---|
| **Geography** | Sub-Saharan Africa |
| **Capital requirement** | TBD |
| **Investment term** | 10 years |
| **SME Profile** | Agriculture Sector business seeking investment between $50-$500k. |
| **Repayment Structure** | Starting in year 2, repayments would be made on a semi-annual basis after verification of two criteria: the number of investments made and the returns on those investments. |
| **Governance** | Independent auditors would regularly report to the investment group, BDS Providers Support and Performance Managers, BDS providers and development agencies on performance based on the stated criteria. |
| **BDS Providers Support and Performance Managers** | Performance manager would receive DIB and manage BDS Providers and payments. Reports to Development Agencies on performance. |
| **Investors** | Interested parties comfortable in making investments in African SMEs with positive development implications. |
| **Return on Investment** | The DIBs are expected to carry a level of risk and a required rate of return from the BDS Providers Support and Performance Managers similar to that of the SMEs in their pipeline. The DIB will be repaid at the two defined triggers by the Development Agencies. |

**The Development Impact Bond Working Group would like to thank USAID for its support in developing this case study.**

## CASE STUDY 6:
## Energy Efficiency Implementation

### THE SOCIAL PROBLEM

Alongside renewable sources, energy efficiency is one of the two key strategies that governments are deploying to cut greenhouse gas emissions. The UN argues that using less energy has the potential to balance energy supply and demand far more quickly and cheaply than renewables.[37] Measures can be as simple as installing loft and wall insulation, draught-sealing windows and doors and replacing incandescent bulbs with energy-efficient ones, and can reduce the need to invest in energy infrastructure, cut energy bills, improve health, increase competitiveness and improve consumer welfare.

Despite its apparent benefits, experts observe an "energy efficiency gap" between actual and optimal energy use. Consumers – whether individuals, firms, and/or governments, in both developed and developing countries – consistently fail to make seemingly economically beneficial investments in energy efficiency, foregoing substantial long-term cost savings and environmental benefits.

Research by the McKinsey Global Institute finds that investing $90 billion USD annually into energy efficiency improvements in developing countries to 2020 would generate up to $600 billion USD in savings, and free countries from having to invest nearly $2 trillion USD to expand the supply capacity necessary to meet growing demand if energy productivity remains constant.[38] Despite the attractive economics of energy efficiency investments, developing countries – and those in the developed world – have thus far left much of this potential untapped.

### THE OPPORTUNITY

A number of significant barriers prevent customers from making financially and environmentally beneficial investments into energy efficiency. First, energy efficiency measures typically require a substantial investment in exchange for savings that accrue over the lifetime of the deployed measures. Many households and businesses

37 Hohler, Greenwood and Hunt, (2007)
38 Farrell, Remes and Charles, (2008), p.8

lack the working capital required to make such investments, particularly in emerging economies, where "discretionary" income is often a luxury enjoyed by few in society.

Second, uncertainty surrounding cost savings generated by energy efficiency upgrades makes it difficult for customers – whether individuals or businesses – wishing to make energy efficiency upgrades to access loans from commercial banks. For example, an energy services company (ESCO) could provide customers with a window glazing service that could reduce energy needs and save them money down the line. Customers may approach a commercial bank to ask for a loan to cover the initial investment required to make the upgrades but could be refused due to uncertainty surrounding potential cost-savings and, thus, the customer's ability to repay the loan.

Uncertainties surrounding cost savings are due in large part to informational asymmetries between customers and ESCOs, resulting in moral hazard. For instance, consider a homeowner wishing to insulate the walls of his/her house to reduce heating bills. She contracts an ESCO to install insulation panels. However, because she does not have the technical skills to judge whether insulation panels have been properly connected (and because the ESCO is aware of her limitations), the ESCO does not have a clear incentive to ensure that the insulation is properly installed, resulting in lower than anticipated energy savings. Experts estimate that ESCOs install some 90% of heating, ventilation and air conditioning equipment and insulation sub-optimally, reducing efficiency to 20–30%.[39]

A Development Impact Bond (DIB) could help overcome these obstacles by generating the upfront capital necessary to make energy efficiency investments and by clearing up some of the informational asymmetries that are preventing a commercially viable market from forming. Donors potentially contribute to outcome payments to investors, or could play a part in providing technical assistance, for example through helping to share knowledge and best practice.

### TARGET LOCATION

The DIB model could be applied to a variety of different energy efficiency scenarios in the household, commercial and industrial sectors.

39 Granade, Creyts, Derkach, Farese, Nyquist and Ostrowski, (2009), p.35

## OUTCOME METRICS

Outcome metrics could be both environmental and monetary. The environmental outcomes could be measured in terms of both lower energy usage and in the Green House Gas (GHG) equivalent reductions, whereas monetary reductions can be measured in terms of cash savings generated; both can be easily measured with existing technologies, even at the individual level.

In addition to environmental and monetary impact, there is also potential for social impact in the form of positive job creation. This is particularly true in emerging markets, where ESCOs tend to be smaller local companies. With access to additional capital, they can grow and create more jobs for their communities.

## INVESTOR PROPOSITION

The returns to the DIB investor are directly related to the energy efficiency gains. In developed markets, ESCOs are a multibillion dollar industry. In emerging markets, where financing is less readily available, regulatory environments are less stable, and ESCOs are not yet a widely used model, the potential energy efficiency gains may be even greater. As a result, on a risk-adjusted basis, returns to the investor may be higher in emerging and developing markets. In addition, since this model can be financially sustainable, the gains to the DIB investors can be recycled into other investments, thereby increasing the impact.

THERE ARE TWO PROPOSED MODELS:

**Investment via an energy services company (ESCO):**

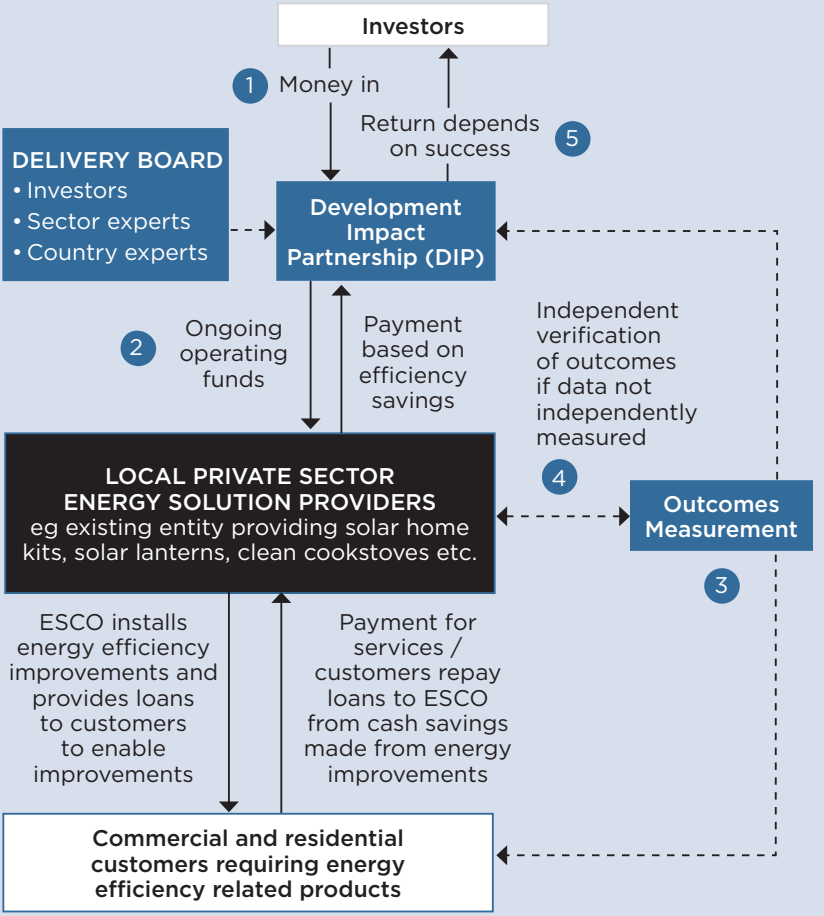
Investors put money into a DIB fund. This money goes directly to an ESCO either as an equity investment or as a loan, and the ESCO acts both as lender (to customers wishing to make energy efficiency upgrades) and service provider (to provide and install the energy efficiency upgrades). If customers borrowed from the ESCO to fund these services and the energy efficiency improvements generate cash savings (for example through a reduction in the amount of energy used by the customer) customers use the savings they have made to pay back the ESCO (plus interest). The ESCO then uses this capital to pay back investors their initial investment (plus interest). Because customers' loan repayments are tied to cost savings generated from the upgrades,

the ESCO is incentivised to ensure that their upgrades actually generate the cost savings they are supposed to; if they do not, ESCO stands to lose all or a portion of its loan. As for investors, if the original payment was provided in the form of an equity investment, investors get paid only to the extent that the ESCO has distributable cash on an annual basis. If it was provided in the form of a loan, investors get paid on a scheduled basis or the repayment could be deeply subordinated, with a bullet repayment at the end of the term. Regardless of whether the money to the ESCO is in the form of equity or a loan, the ESCO must retain some financial risk to ensure quality work and sound underwriting of customer loans over the long term.

**Investment via local lending intermediaries:**

Investors put money into a fund. A financial intermediary (which could be established as a bank, fund or leasing company) would lend that money to individual customers, who would then contract an ESCO to install upgrades. Customers would then pay back their loan principal plus interest, based on cost savings generated through energy efficiency upgrades. In this model, the ESCO would guarantee a certain level of technical performance / energy savings but would not take the commercial risk of the lending activity. This model may be preferable to the first model with new ESCOs.

## Potential DIB Structure




* See section 3F for further details on DIB structures

1. **Investors provide upfront financing to DIP**
2. **DIP funds and manages service providers to generate outcomes -** performance manager hired by DIP to work-in-country
3. **Measurement and reporting of contracted outcomes/outputs**
4. **Independent verification of contracted outcomes/outputs**
5. **Payments made back to investors based on cashable savings realised as a result of energy efficiencies**

**How a Development Impact Bond could add value**

| | Value of a DIB | Other approaches |
|---|---|---|
| **Energy efficiency investments require significant investment in advance** | Energy efficiency measures typically require a substantial investment in exchange for savings that accrue over the lifetime of the deployed measures. Many households and businesses lack the working capital required to make such investments, particularly in emerging economies, where "discretionary" income is often a luxury enjoyed by few in society. In a DIB, investors provide upfront funding for energy efficiency investments. | Other approaches require commercial banks and/or the ESCO to provide upfront funding and thus assume risk. However, ESCOs often do not have sufficient capital or liquidity – particularly small players in emerging markets – to provide financing to their customers, and a traditional bank's uncertainty as to the technical performance / energy efficiency savings keeps banks from lending to customers wishing to make energy efficiency upgrades, resulting in underinvestment in energy efficiency. |
| **Aligning incentives around outcomes is crucial to creating viable market for energy efficiency** | Misaligned incentives (in the form of moral hazard) resulting from informational asymmetries between customers and ESCO contractors are preventing a viable market from forming. By tying repayment of loans and financial returns to cash savings resulting from energy efficiency upgrades, DIBs help to clear up some of the informational asymmetries and pave the way for a viable market in energy efficiency. | In an effort to boost demand for its services, ESCOs have begun to act as both lenders and services providers (i.e. "Energy Savings Performance Contracts"), tying repayment of customers' loans to cash savings generated from the energy efficiency upgrades. Although this framework successfully aligns incentives, the ability of such scenes to reach scale is limited by ESCO's customer base – and the willingness (or lack thereof) of ESCOs to act as banks (see above). |

| | | |
|---|---|---|
| **Greater transparency around the energy efficiency market** | Cash savings generated from energy efficiency upgrades would be independently evaluated before payments are made, and data related to the costs, value and impact of energy efficiency investments would be made publically available, thus improving accountability and market transparency. | In the current market, data related to the costs, value and impact of projects is not always made publically available. |

**The Development Impact Bond Working Group would like to thank OPIC for its support in developing this case study.**

# 3 Section Three - Cross-cutting Issues for Implementing Development Impact Bonds

This section explores some of the cross-cutting issues in the design and implementation of Development Impact Bonds. It explores ways of measuring and defining success in a DIB contract, approaches to valuing outcomes, determining the risk-return profile, resources and expertise required, role of DIB parties and potential DIB structures. Whilst this section aims to highlight themes for consideration in developing DIBs, the particular characteristics of a DIB will depend on various factors, for example the specific objectives of the DIB (e.g. the social issue and geography it is looking to address), the size of the transaction, the parties involved in the DIB contract and the roles they would like to take on.

## A. MEASURING AND DEFINING SUCCESS IN A DIB CONTRACT

When considering how success in a DIB should be defined, a good starting point is to consider the outcomes that the DIB is trying to achieve and the best way to measure these outcomes. Outcome metrics – the way in which outcomes are measured – are crucial as they form the foundation of the DIB contract between investors and outcomes funders. The chosen metrics should help align incentives amongst DIB stakeholders (donors, investors, partner governments and service providers), such that financial returns to investors are aligned with success in achieving desired social outcomes. This alignment helps to drive the focus on results in the DIB.

Key considerations in the process of identifying appropriate outcome metrics include: measurability, avoidance of perverse incentives, ability to evaluate success and the potential for independent verification of results.

### 1. MEASURABILITY

As a minimum, the outcomes identified need to be measurable. Measured changes in the chosen outcomes metrics over the duration of the programme should enable an assessment of whether or not the programme has been successful in achieving its objectives. Given that the DIB contract transfers all or part of the implementation risk to investors, who are only paid when expected outcomes are achieved, all stakeholders need to trust that the outcome metrics can be measured effectively and objectively.

There are various levels at which outcome metrics can be measured – for example at the individual, cohort or community levels. There are also different types of metrics that can be used – for example binary metrics which are a "Yes/No" measurement of whether something has occurred, or frequency metrics which measure the number of times an event occurs within a given period. In some cases, the level of resources needed to collect data on the desired metrics may be unrealistically high, or it may be challenging for the metrics to be measured objectively. In such cases, alternative metrics which act as strong proxies for the desired metrics will need to be identified, or cost-effective, innovative measurement methodologies developed to enable data collection.

**Case Study: Using innovative measurement methodologies to measure teacher absenteeism in India***

An example of an innovative measurement approach is the use of portable cameras in classrooms to measure teacher absenteeism in Udaipur, India. The programme is run by Seva Mandir, a voluntary organisation working on rural and trial development issues in Rajasthan and evaluated by the Abdul Latif Jameel Poverty Action Lab. Teachers were instructed to have a student take a picture of the teacher and other students at the beginning and end of each school day, using a tamper-proof camera with date and time stamp to record whether or not they attended class. This enables teacher absenteeism to be measured without the need for high numbers of school visits and also enables objective monitoring, since self-reporting (without photographic evidence) would most likely result in underreporting of absence rates.

* Jameel, (2008)

## 2. AVOIDANCE OF PERVERSE INCENTIVES

DIBs allow donors, and in some cases country governments, to pay incrementally for outcome improvements. Selection of the appropriate outcome metrics helps incentivise behaviour that leads to improved outcomes and reduces the possibility of undesirable and unintended results that are contrary to the interests of DIB stakeholders. A focus on inappropriate metrics could lead to undesirable results or behaviours like gaming (e.g. improving or cheating on reporting, rather than improving performance), focusing on activities that are most easily measured and achieved (e.g. quick fixes) and ignoring of tasks that are not rewarded.[40]

[40] DFID, (2005)

When considering the issue of perverse incentives, it is important to identify what perverse incentives already exist in the present system and assess the key challenges that the DIB structure is looking to address. For example, it may be the case that present incentives lead to a disproportionate focus on achieving input or budget targets, as opposed to incentivising the achievement of outputs and/or outcomes. Or, there may be so many output or outcome indicators identified for a specific intervention project that the incentives become diffuse and there is little focus on core outputs or outcomes. In some cases, it may be that an "all or nothing" payment based on whether a particular output or outcome target is reached leads to perverse incentives to cheat on reporting or to spend less effort and resources on delivery if providers decide halfway that they are not on track to meet the target. Careful selection of DIB outcomes metrics and design of the payment structure should help to reduce, if not eliminate, existing perverse incentives. Rigorous monitoring systems are also needed to ensure that any unintended and undesirable results can be highlighted and remedied quickly.

### Case Study: Avoidance of perverse incentives in the diagnosis and treatment of Tuberculosis in India*

A range of performance incentives such as direct payment, deposit return or food rations and vouchers have been used to successfully improve health outcomes across the world. However, one danger of offering food or money as an incentive to encourage patients to be tested or treated is that this may lead to perverse incentives. In India, for example, monitoring of a programme focused on treating tuberculosis patients revealed that some individuals attempted to prolong the treatment period – and therefore the period in which they received the performance incentive – by avoiding taking the full course of medicines so that they could continue to receive a monthly payment. In response to this, the scheme was adjusted so that payment was restricted to a limited period of six months from when the treatment began – sufficient time to ensure that treatment was delivered effectively. In this instance, ongoing monitoring of the programme enabled managers to identify the problem and put a mechanism in place to stop this from happening. However, it highlights that careful programme design and rigorous monitoring systems are required to ensure that unintended and undesirable results are prevented from happening.

* Beith, Eichler and Weil, (2009)

## 3. ABILITY TO EVALUATE SUCCESS

To be able to contract based on outcomes, a robust system for evaluating success needs to be put in place. A control/comparison group or baseline can be established to reflect expected outcomes in the absence of DIB-funded interventions. Outcomes achieved by the DIB can then be compared against control/comparison group or baseline outcomes to determine the impact that has been generated by the DIB-funded interventions. This helps to reduce two important attribution risks: first, the risk that outcomes funders end up paying for an outcome that would have happened anyway; and second, the risk that DIB investors do not get paid for outcomes that the DIB-funded interventions have generated.

Three potential ways of evaluating success are described below:

### Randomised-controlled trials

Randomised controlled trials (RCTs) are widely considered to be the most rigorous way of determining that a significant change has occurred and that this change can be attributed to the intervention. In an RCT, "control" and "treatment" (i.e. intervention) groups are established by randomly assigning participants to these two groups. Random assignment helps ensure that any potential participant biases are evenly distributed across the treatment and control groups, such that any differences in measured outcomes across the two groups can be attributed to the intervention.

RCTs can be particularly valuable when trialling new interventions (see p. 111 on Intervention Risk). In these scenarios there is relatively little understanding around whether and to what extent the new interventions will bring about the desired impact. By evaluating the pilot results rigorously using an RCT to understand whether or not an intervention works, an informed decision can be made about whether it is worthwhile scaling up the intervention to a wider population.

The costs associated with designing and implementing a RCT will partly depend on whether the outcomes data of interest is already routinely collected and if a large sample size is required to provide robust results. Where an intervention delivers a large benefit (i.e. a large effect size), an RCT trial with a relatively small sample size will be able to detect this effect; however, detecting more subtle differences (i.e. a small

effect size) will require a larger sample.[41] Particularly when testing out interventions with relatively little track record, it is important to focus on what the costs of *not* doing a rigorous programme evaluation will be, rather than the cost of the RCT exercise itself – the potential costs of rolling out an ineffective intervention, which could be potentially harmful rather than beneficial to the target population, should be carefully considered.

**Case Study: Using an RCT to test the effect of village-based schools in Afghanistan prior to scaling up***

An RCT was used to test the effect of village-based schools in Afghanistan before scaling up the intervention. A five-year USAID-funded programme (called the Partnership for Advancing Community-based Education in Afghanistan) was established to expand educational opportunities to children, especially girls, in areas of Afghanistan that lack access to formal governmental schools. With a sample of 31 villages in two districts in northwest Afghanistan, 13 villages were randomly selected as sites for community-based schools a year before this community-based approach was implemented in the entire sample of villages. This phased-in approach enabled estimation of the one-year impacts of the community-based schools on children's school attendance, knowledge of maths and the local language.

* Burde and Linden, (2012)

In the above example, the "units" being randomly selected (or randomisation unit) are villages. The randomisation unit could also be individual people (e.g. patients randomised to either receive or not receive a particular drug treatment), or institutions (e.g. schools randomised to either receive or not receive an education intervention). Where frontline workers are uncomfortable about randomising individuals, or where randomising individuals is actually inappropriate (e.g. where the spread of infection is likely to be high and a whole group needs to be treated for the intervention to have the desired impact), it may be better to randomise institutions (e.g. schools) or geographical areas receiving the intervention.

### Live comparison group

This approach compares the outcomes achieved by the intervention group against a contemporaneous comparison group that is monitored

41 Haynes, Service, Goldacre and Torgerson, (2012)

during the period of intervention. The comparison group established seeks to mirror the target group in characteristics as far as possible.

Ideally, the only difference between the intervention and comparison groups is that the latter does not receive the DIB-funded services that the target group benefits from. However, given that there is no random assignment to treatment and control groups under this approach (in contrast to in randomised controlled trials), there may still be important differences between the treatment and comparison groups. Where these differences may be related to whether or not outcomes are achieved, the validity of the evaluation exercise will come into question. There are a number of techniques for reducing the differences between the comparison and intervention groups. These include for example, propensity score matching, a technique that attempts to predict the comparison group's "normal" outcomes from the characteristics of the group (e.g. age, gender, education, ethnicity, disability) via statistical procedures, and then applying a formula to the intervention group to predict what their outcomes would have been without the intervention (i.e. their "normal" outcome). The intervention group's actual results are then compared to their predicted results to assess the impact of the intervention.[42]

Given that live comparison groups do not require the evaluator to control who does, and does not, get the intervention, they may be a pragmatic design choice in certain situations where doing an RCT is not practical or feasible. In certain cases, neither RCT nor live comparison group methodologies may be practicable, particularly in cases where there are clear reasons for not wanting to exclude any individuals from the intervention. For example, where interventions have already been rigorously evaluated to be beneficial for the target population, there will be less reason to exclude certain subgroups from the intervention in order to establish control or comparison groups for evaluation purposes.

### Establishing a historical baseline

In some cases, it would be appropriate to establish a historical baseline, against which future outcomes can be compared to evaluate the success of interventions. Historical baselines are best when there is a

42 Duignan, (2009)

reasonably stable target population with a consistent level of outcomes (or a predictable trend in outcomes) over a number of years. They also work best for outcomes that are not likely to be significantly affected by broader socio-economic trends and external factors outside of the control of service providers. An advantage of using a historical baseline is that there is no need to exclude individuals who could benefit from interventions when these come on-stream, since all the data needed for establishing the historical baseline would have been collected before the start of the DIB intervention. This contrasts with control or live comparison groups, where individuals in the comparison or control group will need to be excluded from interventions in order to accurately measure DIB impact.

### 4. IMPORTANCE OF INDEPENDENT MEASUREMENT AND VERIFICATION

Within a DIB contract, outcome metrics form the basis on which payment flows between outcomes funders, investors and service providers are determined. Investors are not paid unless agreed outcomes are assessed to have been successfully achieved. Outcomes funders need to have confidence that the outcomes reported provide an accurate reflection of the improvement in desired outcomes for the target population before making payments to investors. We therefore advise that outcome metrics are independently measured and reported by a third party (i.e. not the parties with a financial interest in whether or not outcomes are achieved).

Where this is not feasible or practicable, for example where outcomes data is already collected by the partner government as part of their routine monitoring system, it will be important that the data is independently verifiable to the satisfaction of both investors and outcomes funders. In addition, where a baseline or a comparison/control group is established for the purpose of evaluating success, DIB stakeholders will also likely require independent measurement or verification of this data. Metrics that are based on qualitative, self-reported data or interview responses are less objective and auditable. Service providers, investors and outcomes funders may be less comfortable relying on qualitative or subjective metrics as the primary outcome metrics on which payment will depend, although this data can still provide valuable information for the purposes of performance management and programme evaluation.

The verification process should be tailored to the specific programme area and context but could include an assessment of the reliability of reporting by providers through some form of repeated measurement or "recount" of the original or source data by an independent party. Where the discrepancy between the data originally reported and the "recounted" data is found to be within an acceptable, pre-determined margin of error, the original data report is accepted and outcomes payment are calculated on that basis. Other components of a verification process could include random spot checks of beneficiaries (e.g. sampling patients drawn from health facility registers to ensure that those reported to have received health services actually received them) or direct observations by an independent agent of the conditions of service delivery (e.g. directly observing the provision of care by a health facility's staff to its patients and an audit of management practices, equipment, supplies and information).[43] Where possible, a verification process may adopt a combination of the above and/or other verification approaches in order to triangulate outcomes data from a variety of sources.

### Case Study: Verifying results in Cordaid's Performance-Based Financing (PBF) pilot to improve basic health care in Burundi*

To improve basic health care in two provinces in Burundi, the Dutch NGO Cordaid created a number of Local Fund Holding agencies (FHAs), which were responsible for contracting individual health facilities and introducing PBF for a set of well-defined services. The FHAs were also responsible for verifying service quantity (and quality) in health centres and hospitals as a condition for releasing performance-based payments.

To verify service quantity, the FHAs' auditors, who are independent of the local health system and government, visit each public health facility monthly. They verify the consistency of the data reported on monthly summary reports by reviewing the records of the health facility (and any sub-contracted facility) and recounting the number of services registered for the specific indicators. In addition, the FHAs contract one local community organisation for each health facility to carry out additional verification, including tracking a proportion of patients registered in the health facility to verify that these patients exist and have actually received the services.

* Naimoli and Vergeer, (2010)

43 World Bank, (2010)

## B. APPROACHES TO VALUING OUTCOMES

A DIB contract sets out the price that outcomes funders pay to investors for successfully achieving agreed outcomes. A minimum pre-condition for DIB suitability is that the value society places on the potential outcomes that the DIB can achieve is higher than the cost of delivering the DIB. When pricing outcomes, the value needs to be high enough such that investors are compensated for investing in the DIB and for taking on the risk of failing to deliver outcomes. At the same time, the outcome value should not be so high such that all of the societal value generated is captured by investors.

Experience from developing SIB contracts has shown that working in partnership is crucial to valuing and pricing outcomes for early transactions. For early DIBs, as with SIBs and other payment by results approaches, the process is likely to involve negotiation rather than precise calculation due to a lack of historical data and precedent transactions currently in this space. Nevertheless, there are a number of approaches which can be used to inform discussion and to enable triangulation of the most appropriate outcomes value and price for early DIBs. Some examples of potential approaches to valuing outcomes are discussed below.

### 1. COST-PLUS PRICING

The lower bound for the outcome value in a contract is simply the cost of provision. Cost-plus pricing uses the cost of provision as the basis of the price of outcomes, and simply adds on a certain percentage to the costs to provide a pre-determined maximum rate of return. Cost-plus pricing is primarily used because it is easy to calculate and requires minimal information. Particularly in an uncertain market where there is little information available to establish prices, cost-plus pricing offers some clarity to DIB parties as to what the rate of return is on the investment transaction.

### 2. HISTORICAL COST OF DELIVERING OUTCOMES

In considering the most appropriate price for target outcomes, governments and donor agencies could look at the average cost to them of delivering comparable target outcomes through their historical outcome spend on similar initiatives. It is important to appraise previous initiatives in aggregate, taking into account the expenditure

on those initiatives that were successful in achieving desired outcomes, as well as those that were less successful or failed to deliver at all. If only the most successful programmes are included in the comparison, the cost of achieving successful outcomes will be underestimated, providing an unrealistic benchmark against which to compare DIB costs. It is also important to reflect the true cost of historical provision by taking into account service provider and donor overheads, performance management and other indirect costs in addition to direct intervention costs.

Outcomes funders may be able to use historical information to inform outcome cost comparisons where a potential DIB targets the same or similar outcomes as prior initiatives. However, direct comparisons may be harder to achieve if historical programmes have targeted a broad range of outcomes at once. For example, family planning interventions may have targeted reductions in maternal mortality, as well increased use of contraceptives, alongside other outcomes/outputs. This could make it challenging to distil the average cost of delivering a particular outcome. In such cases, this type of analysis is more likely to inform a decision around the order of magnitude in which the outcome value should lie rather than enable a robust value calculation.

In addition, there may be in some cases a desire to achieve outcomes which have never been achieved before and which would require new interventions and approaches. Under these circumstances, it may not be possible to quantify outcome values by analysing previous initiatives and it may be helpful to consider alternative valuation approaches.

### 3. CASHABLE BENEFITS

For Social Impact Bonds in developed countries, calculating potentially cashable benefits has been the main starting point for outcomes funders when assessing potential outcome values. This analysis may either be based on future costs which could be averted as a result of successfully achieving the target outcomes (for example an anticipated reduction in the cost of health services during the course of the contract or over the longer term) or additional revenue generated as a result of achieving the target outcomes (for example through strengthening the tax basis of a country or utilities income to government).

Consideration of cashable benefits may be relevant in the international development context where donor agencies anticipate a long term funding commitment to a particular issue area in which preventative action could avert significant future spending, such as malaria control or HIV diagnosis and treatment.

However, developed country analyses focusing on cashable benefits rely on the assumption that public services – such as the high cost of inpatient hospital bed use by patients with long term conditions – would continue to be funded at the same level in the absence of the outcomes-based contract. By funding successful preventative interventions, such as community support by specialist consultants and nurses, these costs could either be avoided or greatly reduced.[44]

In a developing country context, the existing supply of services may often be insufficient to meet the needs of the population. In such contexts, at best, preventative services free up resources to address other issues and/or prevent unmet need from rising further. As such, achieving target outcomes may not result in direct monetary savings for the government or donor agencies and it may be helpful to consider other approaches of valuing the social benefits achieved.

### 4. QUANTIFIED SOCIAL VALUE

In areas where there would not necessarily be a cashable benefit to donors or governments, but where significant value to society would be gained from the successful delivery of outcomes, an estimated value of social change can be calculated. The quantified social value provides an upper limit to the outcomes value in a DIB contract. Depending on factors such as the type and level of risk transferred to investors, investors' appetite and ability to take on these risks and the scale of the capital requirement, the final outcomes value may be negotiated and adjusted downwards from the quantified social value.

44 Corrigan, (2011)

**Case Study: Quantifying the Social Value of Commercialising an Aflatoxin Biocontrol Product***

Aflotoxin is a toxic chemical produced naturally by fungi which contaminates maize, groundnuts and other crops, causing severe health consequences when ingested. Whilst Aflotoxin can be found around the world, it is particularly problematic in developing countries, where regulators don't have the tools to enforce legal limits, and by necessity, the poor sometimes eat even the most visibly affected crops. A potential intervention is biocontrol, which involves introducing competing varieties of fungi that do not produce aflatoxins. Donors have been considering the potential of using a pay-for-performance model which would provide rewards to a designated party based on the prevalence of aflasafe strains (that cannot produce aflatoxins) on farmers' fields and/or in markets. A starting point for quantifying social value discussed by the World Bank is to estimate the Disability Adjusted Life Years (DALYs, or years of healthy life lost) averted and then paying per DALY. Additional ways of quantifying the social value of introducing this intervention may include estimating the impact on animals in terms of impaired productivity and death and also the cost in annual lost export revenue due to the impact of Aflotoxin.

* Scherer and Yago, (2011)

## 5. MARKET DETERMINED

As the market for DIBs develops, it may be possible for outcome funders to open up the question of pricing to the market through a procurement process to help determine the most appropriate outcome value. Bidders (i.e. service providers or specialist intermediaries working with service providers) will need to have enough data to undertake a sensible analysis of the costs of DIB delivery and to make an informed judgement on the likely level of outcomes that can be achieved. It is also important that outcomes funders develop the necessary commissioning capabilities to enable design of fair and efficient procurement processes in addition to ensuring that they have the capacity to undertake thorough due diligence on bids to determine value-for-money both in terms of quality and cost of delivery. If this were not the case, there will be a serious risk of there being a "race to the bottom" amongst bidders such that the cheapest bid wins, regardless of the actual quality of the DIB provider and its ability to deliver the results. Bidders with a lack of understanding of the country context and delivery environment are also prone to optimism bias, which causes them to bid based on unrealistic assumptions of the results they can

deliver for a certain outcomes price. DIB parties will need to be aware of these potential pitfalls and ensure that processes and safeguards are in place to ensure that market-determined outcomes are priced appropriately and that the bid that genuinely ensures best value-for-money is selected.

### C. DETERMINING THE RISK-RETURN PROFILE

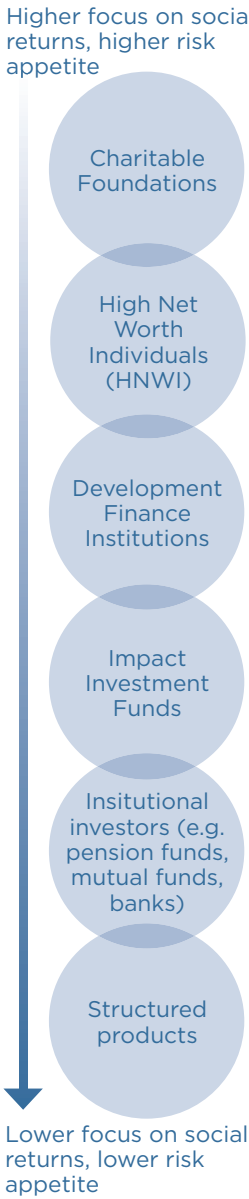
To determine the appropriate risk-return profile of the DIB proposition, stakeholders will need to consider: i) the type and amount of risk to be transferred by outcomes funders to investors, ii) investor preferences such as those relating to term, liquidity and investment size; and iii) the appropriate balance between outputs-based payments and outcomes-based payments within the DIB contract.

The pricing of outcome payments, and thereby the returns to investors, needs to be considered in conjunction with the risk profile of the DIB proposition. Experience from developing Social Impact Bonds suggests that the different parties to the contract often have quite different perceptions of the potential risks associated with the contract. We recommend that early DIBs are developed collaboratively between the key DIB parties with open discussions of the potential risks within the project and who will be best placed to manage them. This will ensure that the resulting contracts are attractive to investors, whilst offering good value to outcomes funders.

In traditional commercial markets, the higher the risks borne by an investor, the higher the expectation of a return. Early DIBs would be regarded as high risk by commercial or institutional investors as they are an unknown structure without a track record and involve implementing programmes through non-government organisations in developing countries. An element of social investment is therefore likely to be needed to make early DIBs an attractive proposition to all parties.

Social investment is still an emerging field. Social investors are those who invest both for financial and social benefit. Social investors weight the social and financial returns they expect from an investment differently from purely commercial investors and may be willing to take on higher risks in order to generate greater social impact. Such investors include charitable trusts and foundations, development finance institutions, dedicated impact investment funds and wealthy individuals. We expect there to be considerable interest in investing

**FIGURE 6. OVERVIEW OF INVESTOR UNIVERSE**




in DIBs, but also significant barriers – for example, the specific rules or mandates under which impact investors have to invest money may not include DIBs. Consequently, larger transactions are likely to require a layered structure with different investors taking on different levels of risk, with social investors helping to "crowd-in" others by taking on higher levels of risk.

### 1. ASSESSING THE TYPE AND AMOUNT OF RISK TRANSFER

Due to the large number of projects it takes on and the scale of its operations, which allows for considerable aggregation, the public sector could be thought to be risk neutral. Following this logic, the public sector should, in theory, only be concerned about the expected return on its investment, not the risk of that return being realised. In practice, however, the public sector's approach to individual projects can be more conservative, as there are public pressures over waste in the event of failure. Individuals' reputations are often tied to the results of specific projects and not the whole of government spending. As a result, there is acknowledgement that the public sector is often limited in the levels and types of risk it can take, how much it can innovate and the types of programmes it can fund.

Development Impact Bonds can provide a way for the public sector, as outcomes funders, to pay for better outcomes whilst avoiding paying for programmes that fail. Within a DIB contract, investors provide upfront funding to finance a portfolio of interventions that are targeted at achieving a set of desired outcomes. Potential investors will evaluate whether the proposed payments for achieving the outcomes

sufficiently compensates them for taking on the risk of failing to deliver those outcomes. In general, the more a risk is believed by investors to be outside of their control, the higher the perceived level of risk transfer and the higher the financial return they will require for their investment. For instance, there is little rationale for government outcomes funders to transfer act of god risks or political risks that are outside of investors' control and outcomes funders may be better off retaining these risks to ensure value for money.

Since DIB contracts are structured around the desired programme outcomes, they should allow investors and service providers more flexibility to adapt interventions to achieve success than traditional input-oriented contracts. This flexibility is a key benefit of the structure. It provides outcomes funders a route through last mile implementation issues and enables delivery to hard-to-reach populations, which may be difficult to achieve under input or process oriented contracting approaches. This flexibility also enables investors to better manage their risk, since investors (and the service providers they finance) can innovate and adapt interventions, processes and structures to meet the needs of the target population as these needs become clear over the course of the implementation period. This flexibility should increase investors' potential to deliver agreed outcomes and thereby help them manage and reduce their risk of DIB non-performance and hence, capital loss.

Outcomes funders are likely to want to limit these freedoms, to ensure that interventions will be aligned with their ethical principles and social objectives and avoid perceived risks of gaming. The engagement of socially-motivated investors in the DIB may, to some extent, help mitigate some of these risks. We recommend outcomes funders think in terms of best practice principles (e.g. adherence to agreed standards of professional conduct and basic safeguards etc.), as opposed to specifying the interventions themselves or mandating outcomes funder permission to adapt the programme.

Risks that may be transferred by outcomes funders to investors via a DIB contract include:

### Intervention risk

Outcomes funders may want to transfer the risk of financing innovative interventions which have a weak or non-existent track record in

generating the desired outcomes. In some cases, interventions that have an evidence base of delivering outcomes when implemented in one location may need to be adapted to deliver results in another location.

DIB stakeholders will want to be reassured that in-depth research has been undertaken to understand target population needs, to ensure that the interventions identified are suited to addressing these specific needs. In addition, there would need to be a clearly articulated theory of change for how and why proposed interventions are expected to bring about the desired outcomes. Contextual factors that may have an effect on implementation of activities and their potential to bring about desired outcomes will also need to be identified to understand the extent of risk transfer. For example, differences in population characteristics and preferences, policy environment, quality of service providers and availability of complementary services and infrastructure will need to be considered when translating interventions for implementation across geographies.

The DIB structure allows flexibility to adapt the intervention over the course of programme delivery – specifications are around the outcomes to be delivered, rather than around the specific activities or interventions to deliver those outcomes. Based on the evidence collected and learning that takes place during DIB implementation, interventions can be adjusted to respond to new needs as these emerge and resource allocation can be altered to help ensure that the mix of activities delivered continues to make maximum impact in improving outcomes. The flexibility to adapt interventions as necessary throughout programme implementation enables investors to reduce the risk of intervention failure.

### Operational risk

This is the risk arising from setting up and delivering interventions to the target population. These risks may be relevant even to well-established and evidenced interventions and could arise from the people, systems and processes through which interventions are delivered. Some interventions may have demonstrated success as a small-scale pilot, but there is uncertainty around scaling up due to the high level of complexity in managing large numbers of personnel, the need to set up delivery infrastructure to cover a big geographical area and systems capable of collecting and analysing large amounts of data for performance management and evaluation purposes. Investors

will need to be reassured by the quality of the management team who will oversee and monitor the set up and delivery of interventions to be confident of achieving the contract outcomes.

Case Study: Operational risks associated with reducing Rhodesian sleeping sickness in Uganda

Robust scientific evidence suggest that if the level of human infective parasite in cattle is effectively reduced through mass treatment of cows, there is a low probability that the desired outcome (i.e. a reduction in the incidence of Rhodesian sleeping sickness in humans) will not be achieved. Scaling up the delivery of the required intervention however, is operationally complex. It requires the mass treatment of 3 to 4 million cattle once a year for three years to reduce the level of parasite prevalence in the cattle population in at-risk districts, followed by the implementation of sustainment activities to maintain this reduction in the longer term. The successful implementation of this intervention will require robust management of people and resources, significant community engagement and the creation and maintenance of relevant delivery infrastructure. Therefore, the primary risk being transferred from outcomes funders to investors in this case is operational.

### Demand side risk

Even if interventions are well-designed in addressing the needs of the target population and mechanisms are in place to enable efficient service delivery, engaging the target population will be essential to ensuring that there is sufficient demand for the service. For example, for a DIB that focuses on increasing the rate of HIV testing, improved access to testing facilitates may be just one of the components of a successful programme. Investors will want to ensure that the intervention model involves engagement activities at both individual and community levels to improve education and raise awareness of HIV, which are likely to be crucial for increasing HIV testing rates due to the sensitivities surrounding HIV status.

## 2. INVESTMENT TERM, LIQUIDITY AND SIZE

In order to successfully attract capital from investors, it is important to involve potential investors in the DIB development process to understand their priorities, not only in terms of the types of risks they are willing to take, but also in terms of their preferences with respect to investment term, liquidity and investment size.

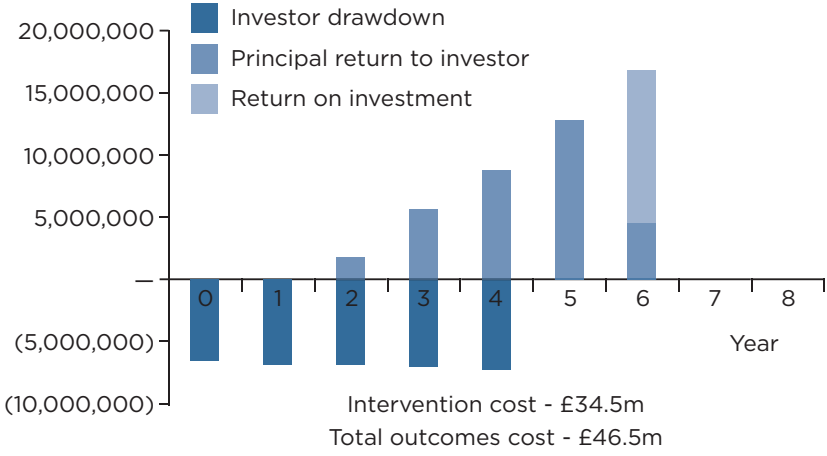
### Investment term

The longer investors have to wait to receive back their capital and make a return, the higher the likely cost of capital (see example below). If outcomes take a long time to materialise and trigger outcome payments, or if outcomes funders require outcomes to be sustained for a lengthy period of time before payments are made, the level of return that investors are likely to require will be higher due to the time value of money and the higher risk that the requirement of sustained outcomes brings. Where this is a concern, it may be possible to develop outcome payment structures that reduce risks for investors by, for example, enabling a proportion of the payments to be made within a relatively short timeframe based on intermediate outcomes or desired outputs, with further payments made at a later stage if final outcomes are achieved.

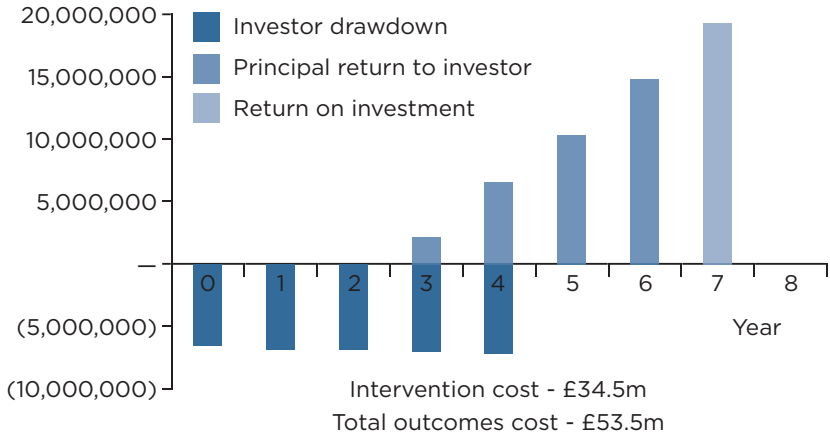
The graphs below illustrate cashflows to and from investors for the same programme depending on whether the payment structure is designed to have a 12 or 24 month delay in outcome payments. In the latter case, outcomes funders will need to pay a higher absolute amount in outcome payments to compensate for the longer investment term if the targeted annual rate of return is to be held constant between the two payment structures

FIGURE 7. ILLUSTRATIVE PAYMENTS TO INVESTORS BASED ON 12 MONTH LAG AND 24 MONTH LAG IN OUTCOME PAYMENTS

**Scenario 1: 12 month lag in payment of outcomes**



**Scenario 2: 24 month lag in payment of outcomes**




## Liquidity

Currently there is limited ability to exit investments in outcomes-based contracts due to the early stage of their development. There is not yet a market place to trade these investments and there may be challenges in determining their value. However, as the market develops and DIBs begin to develop a track record of generating returns to investors, there should be more possibilities for investors wishing to exit to sell their investments onto other investors if desired. For example, investors with a low risk appetite may want to purchase performing DIBs that are already generating a steady return on investment. This could enable initial trail-blazing investors to exit their investments before the full investment term of the DIB is reached, allowing them to put the realised capital towards supporting new initiatives.

## Scale of investment

If the scale of the investment required is large, it may be necessary to develop investment structures that have a lower risk profile or higher returns to make the investor case compelling to a wide range of investors. Alternatively, it may be possible to attract a larger number and range of investors by designing a DIB with different capital classes and payment structures. The timing, triggers and frequency of outcome payments can be used to vary the level of risk transfer (and the

commensurate levels of returns) to suit different investor needs. The feasibility of bringing different investors into a single structure will need to be carefully considered.

The following table provides an illustration of potential risk-return profiles for different investment classes within a DIB. In this example, Class 1 has a low risk/return profile with full capital protection[45] – which makes it similar to standard debt-like instruments in capital markets. Class 3 has a high risk/return profile, with 100% capital at risk – which makes it an equity-like investment. Class 2 has a medium risk/return profile with partial capital protection – this is a theoretical midpoint and is not yet a tested profile in capital markets.

**TABLE 1: ILLUSTRATION OF POTENTIAL CAPITAL CLASSES WITHIN A DIB[46]**

| Capital Class | Investment Risk | Description | Target return per annum | Maximum downside |
|---|---|---|---|---|
| Class 1 | Low | Full capital protection | 2%-5% target return p.a. | 0% return (full return of capital) |
| Class 2 | Medium | Partial capital protection | 3%-10% target return p.a. | -50% return (return of half of the capital) |
| Class 3 | High | 100% capital at risk if agreed outcomes not achieved | 10%-20% target return p.a. | -100% return (full loss of capital) |

## 3. OUTPUTS VS. OUTCOMES-BASED PAYMENTS

Some social areas are better suited to outcomes-based payments than others. The degree to which payments are based on outcomes rather than outputs may depend on: the ease of measuring outcomes in terms of resource need, data availability and quality; the strength of the relationship between outputs and outcomes; the timeframe required

45 Under full capital protection, all the original money invested is returned to the investor at the end of the investment term, regardless of outputs/outcomes achieved. The investors in Class 1 will effectively be making a repayable loan, with maximum downside that they only get their capital back at the end of the investment term (without any additional return in the form of interest/dividend payments).

46 Risk and return numbers are illustrative only and would depend on the specific investment.

to achieve outcomes; the importance placed on the linkage between outcomes and cost savings; investor risk appetite; investment scale and the availability of outcomes-related capital.

If outcomes measurement will require intensive amounts of resources and if there is strong evidence of a relationship between delivering outputs and achieving outcomes, then it might be worth including outputs-based payments in addition to outcomes-based payments within the DIB contract. In designing the payment mechanism, it is also necessary to consider the level of capital that is realistic to put at risk on a fully outcomes basis. In some cases for example, the measurement timeframe for outcomes may be beyond some investors' appetite in relation to investment term. In order to attract a wide range of investors and new capital into this space, it may be necessary to think carefully about how much (or little) of the contract would need to be outcomes-based to get the benefits of involving private investors, whilst keeping the costs of capital low.

### Case Study: Determining the right mix of output v.s. outcome payments in a DIB focused on reducing Rhodesian sleeping sickness in Uganda

In the context of reducing sleeping sickness in Uganda, there is significant scientific evidence linking the treatment of cattle to a reduction in the level of human infective parasite in their blood, which in turn is linked to a reduction in human cases of sleeping sickness. The primary risk being transferred from outcomes funders to investors in this instance is therefore associated with the complexity of delivering the treatment to cattle and then ensuring that the impact of this treatment is sustained in later years. A mixed output-outcome payment model may be a sensible option in this context. An exemplar payment mechanism is outlined below.

Initial payments may be triggered based on audited delivery of the required treatment of cattle. If treatment of the target cattle population over a certain threshold is delivered, investors could receive back the cost of this part of the intervention plus a small return. If the programme fails to reach the threshold, investors lose their capital.

To ensure gains from the cattle treatment intervention are sustained, outcomes-based payments, associated with a sustained reduction in human infective parasite prevalence relative to a pre-intervention baseline, can be used to provide investors with a risk adjusted return in later years. If the intervention is delivered successfully but fails to sustain impact in terms of parasite prevalence, the investment loss would be limited to the additional capital spent on sustainment activities.

## D. RESOURCE AND EXPERTISE REQUIRED TO DEVELOP DIBS

At this early stage, the development of high quality DIBs is likely to require considerable thought and collaboration between key stakeholders. This section discusses potential activities and outputs at each stage, alongside the range of skills and expertise required.

### 1. DIB IDEA GENERATION

A DIB idea usually comes in the form of a problem, where for example, present funding models may not be producing ideal results, where implementation is perceived to carry significant risk, or where the model needs significant last mile adaptation over time or by creation.

Ideas for DIBs may come from a number of sources. The models put forward in this report were initiated by two development agencies, two specialist intermediaries, a development finance institution and a service provider. Over time, the outcome nature of DIBs should allow ideas to be brought forward from the field and tested by development agencies or other outcome funders on an experimental basis. In order to progress to a feasibility assessment which is likely to require significant time and effort, we recommend that one or more potential outcomes funders have been engaged and have expressed an interest at the idea generation stage.

### 2. FEASIBILITY STUDY

At the feasibility stage, the social issue that the DIB is looking to address needs to be further analysed and understood. Outcome funders may choose to commission a third party to undertake data analysis in order to understand population trends, identify the geographical focus and determine clear criteria against which the target population can be identified. Potential outcome metrics and ways of measuring success are developed through consultation with all stakeholders (e.g. partner government, outcome funders, investors, potential service providers and beneficiaries). These will form the basis on which outcome payments are made. In addition to identifying outcome metrics, research will need to be carried out to identify interventions that address the needs of the target population and have potential to achieve the desired outcomes.

Development agencies or outcomes funders may be tempted to attempt much of this work in isolation. The learning from developing early SIBs is that they should resist this temptation. Extensive stakeholder engagement and coordination are required to develop a thorough

understanding of the social issue and strategic objectives of outcomes funders and other parties. In early DIBs we expect that a specialist intermediary, preferably with experience in designing outcomes-based contracts, is likely to be helpful in building the case for DIB feasibility and to coordinate input into the DIB project from multiple stakeholders (see Section E for further details on the role of specialist intermediaries).

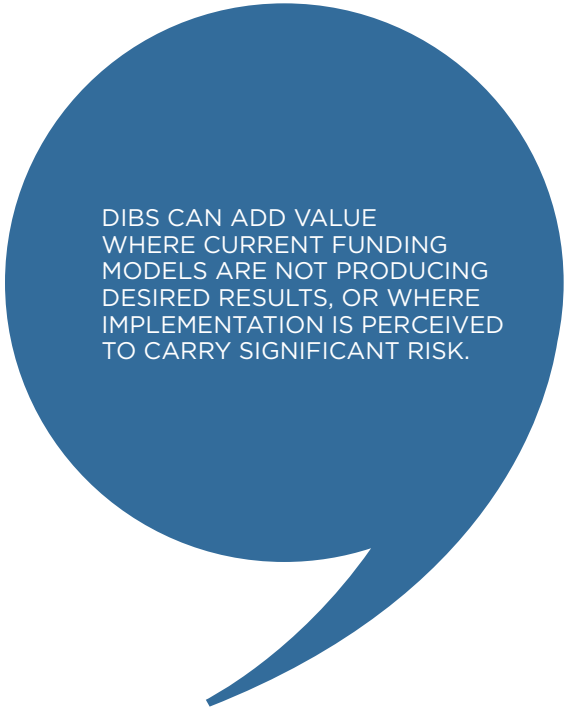
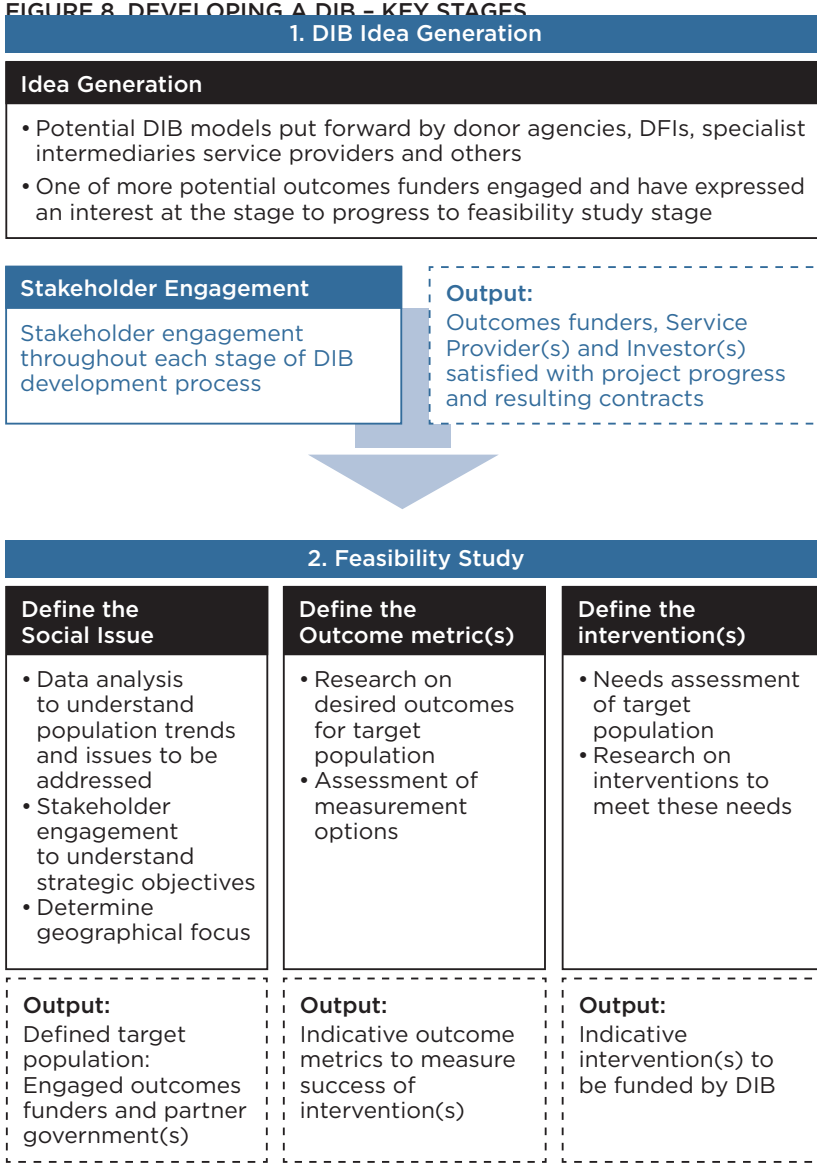


FIGURE 8. DEVELOPING A DIB – KEY STAGES



## 3. Building the Business Case

### Developing Operating Model/Outcome Valuation

- Developing operating model, due diligence on potential providers and intervention costs
- Finalisation of outcomes measurement and payment framework

### Financial Modelling

- Financial model to assess potential financial and social benefits as a result of the interventions

**Output:**
Business Case for approval by outcomes funders; Term sheet to form basis of Outcomes Contract and investor proposition

## 4. Contracting / Procurement / Capital Raising

### Contact Development Procurement

- Design procurement process for outcomes-based contract where applicable
- Develop and finalise Outcomes Contract
- Develop and finalise Service Agreement with service providers

**Output:**
Outcomes Contract; Service Agreement

### Capital Raising

- Identify potential investors
- Market investment proposition to investors
- Develop and finalise investor documentation (e.g. Investor Agreement)
- Secure commitments for investment

**Output:**
Investor Agreement

## 5. Service Delivery, Contract and Performance Management

### Service Delivery, Contract and Performance Management

- Mobilisation of service delivery
- Contract management
- Data collection and analysis
- Reporting to investors/outcome funders/partner government
- Develop and finalise Verification Contract between outcomes funder and verification agent
- Independent verification of reported results

**Output:**
Deliver services
Ongoing outcomes reports to outcome funder / partner government
Verification Contract between outcome funder and verification agent
Verification reports from verification agent to outcome funders

## 3. BUILDING THE BUSINESS CASE

For a DIB to be feasible, there must be an outcomes funder (or funders) willing to commit to pay for outcomes if DIB-funded interventions are successful. Specialist intermediaries can provide support to outcomes funders in developing a DIB business case, which can assist outcomes funders in finalising their decision to fund outcomes through a DIB.

The business case builds on the feasibility study to outline a detailed operating model and outcomes measurement and payment framework. The operating model will set out indicative programme delivery costs and describe how the proposed interventions will fit with existing infrastructure and services. The outcomes measurement and payment framework forms the basis of the DIB outcomes contract, providing detail on the conditions under which outcomes funders will make payments to DIB investors.

Specialist intermediaries can assist outcomes funders in performing financial analysis to test different ways of structuring outcome payments and to assess the financial and social benefits resulting from DIB-funded interventions under different success scenarios. A term sheet can then be developed, outlining the key terms and conditions of the outcomes contract. Specialist intermediaries can also bring an understanding of potential investor needs to the project and can undertake an initial marketing exercise of the investment proposition to potential investors at this stage. This helps to ensure that the outline terms proposed will be successful in attracting investment from potential investors.

## 4. CONTRACTING / PROCUREMENT / CAPITAL RAISING

During the contracting stage, key terms in the outcomes contract such as the target population, investment obligations, outcomes definition, payment mechanism, reporting framework and verification processes will need to be finalised. If a partner has not yet been formally selected at an earlier stage then a procurement process to select an intermediary or service provider(s) to deliver the DIB contract may be needed. At this stage, detailed discussions are held between outcomes funders and the intermediary/service provider(s) to discuss and agree key contract terms. Input from legal experts into contract development will also be necessary. Where an intermediary is commissioned to deliver the DIB contract, it will also need to draw up service agreements with the service providers it subcontracts.

With regard to capital raising for the DIB, an intermediary with access to investor networks and the necessary regulatory authorisation (e.g. FCA or SEC equivalent) can help market the investment proposition to investors and secure commitments for investment into the DIB. The capital raising exercise will likely involve the development of investor materials (including an Information Memorandum and investor presentations) and the presentation of the investment proposition to investors. An investor agreement will need to be developed and agreed, which specifies the amount and timeline for drawdown of capital from investors and the terms under which payments are made to investors.

### 5. SERVICE DELIVERY / CONTRACT AND PERFORMANCE MANAGEMENT

Once the outcomes contract is agreed and financing commitments are secured from investors, the mobilisation of services can begin on the ground. Contract and performance management will need to be carried out on an on-going basis by investors, or more typically by a performance manager representing their interests, to ensure that the quality of the service being delivered is sustained. The performance manager may be hired by investors or by an intermediary contracted to manage service providers and coordinate activities on the ground. On-going engagement with local stakeholders by service providers and by the performance manager will be needed to sustain buy-in for the programme.

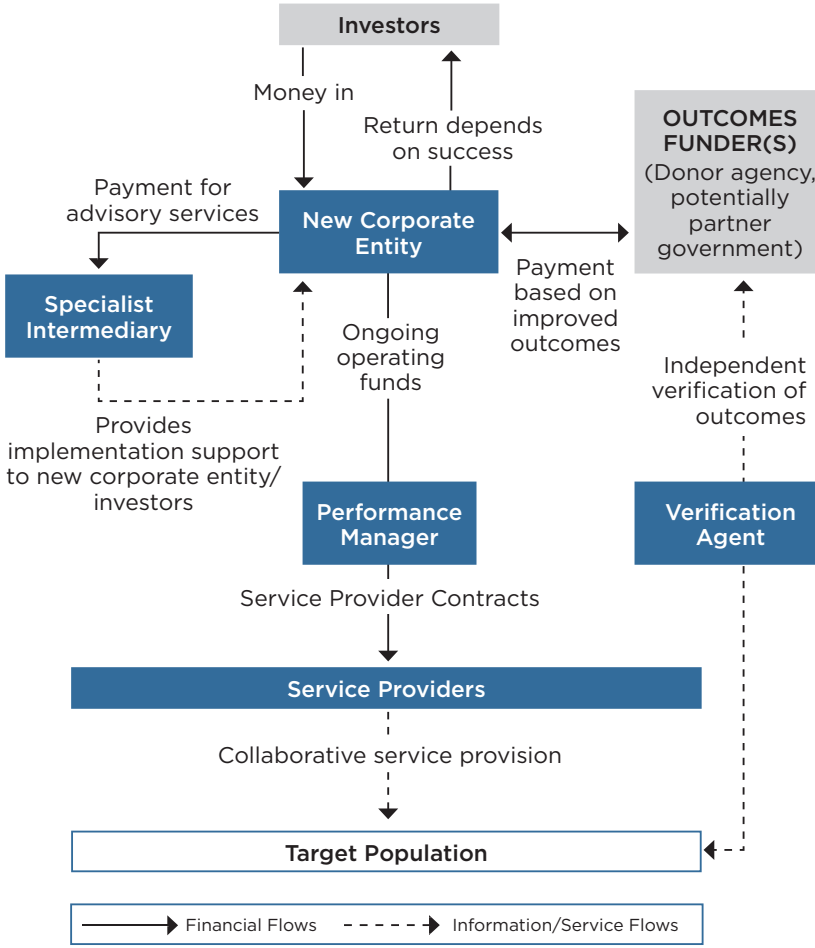
The investors or performance manager will work with service providers to establish data monitoring and evaluation systems which enable on-going collection and analysis of management information and outcomes data. Outcomes reports will be submitted by the performance manager or service providers to the outcomes funders, providing data on whether or not agreed outcomes metrics have been achieved.

Outcomes funders will be involved in the high-level monitoring of programme results and authorisation of outcome payments where these are due. Outcomes funders should commission either an independent third party to undertake measurement or an independent verification agent (potentially a consulting/research firm) to audit and verify the accuracy of reported outcomes if there are sufficiently rigorous measurement systems already in place. Based on the results of this measurement and verification process, the level of outcomes payments due can then be determined.

## E. ROLE OF DIB PARTIES

Development Impact Bonds bring together governments and donors, private sector investors and service delivery organisations, in a way that draws on the best contributions each party can make towards achieving social outcomes. It is likely that early DIBs will be pulled together initially by specialist intermediaries, acting as the champion of the project and bringing stakeholders together to develop a DIB model that works for all parties.

A potential DIB structure is illustrated below:



This section further describes the possible role of the various parties within a Development Impact Bond.

## 1. DONOR AGENCY

Donor agencies are most likely to play the role of outcomes funders in the Development Impact Bond, committing to pay investors if – and only if – DIB-funded programmes succeed in delivering outcomes. The donor agency can also play a critical role in the identification of potential social issues of focus in collaboration with partner governments in developing countries. Where appropriate, outcomes funders may consider commissioning a specialist intermediary to undertake a feasibility study, which would assess whether or not a DIB may be a suitable mechanism for funding interventions to address the social issues at hand.

In the scenario where the donor agency develops an outcomes funding model using a Development Impact Bond, it would be in charge of procuring either a specialist DIB intermediary or service providers to deliver the DIB contract. The donor agency would work in partnership with the DIB intermediary/service providers and investors to develop and refine the operating model, outcomes measurement and payment framework, and to develop the outcomes contract. Where possible, the donor agency should engage early with the partner government to assess the potential roles that it can play in the DIB project, for example as a co-funder of outcomes or to co-monitor the DIB contract.

Another possibility is that other stakeholders, service providers, foundations, partner governments or specialist intermediaries may come to donor agencies with ideas for DIB models seeking outcome funding. We hope that in such circumstances donor agencies would be open to considering testing such innovations on the basis that they will only pay if results are delivered.

During delivery of the outcomes contract, the role of the donor agency will be to provide high-level monitoring of programme results, authorise outcome payments (based on independently reported and/or independently verified results) and continue the dialogue with other DIB stakeholders to ensure that the DIB continues to meet the strategic goals of both outcomes funders and the partner government. Where outcomes reports from the DIB intermediary and service providers highlight barriers to achieving outcomes, the donor agency could work

in a collaborative manner with DIB partners to help overcome these challenges and to enable improved delivery of results.

It is essential that Development Impact Bonds – in particular pilot projects – are evaluated rigorously to ensure that lessons learnt are used to inform the design of future DIB programmes. The donor agency has an important role in ensuring that this evaluation process takes place, for example by funding evaluation and ensuring contract and outcome transparency, so that lessons can be learnt and shared to inform future contracts. Such lessons learnt can include for example: whether and how the structure changed incentives; whether and how the structure led to greater innovation; and whether and how it resulted in greater efficiency in terms of services, stakeholder relationships and value for money.

## 2. PARTNER GOVERNMENT

As with any development programme, wherever possible Development Impact Bonds should be structured to avoid setting up systems that are parallel to a government's own systems. In most cases, it is expected that the partner government would work with outcomes funders and other DIB stakeholders to agree the target population and definition of success for the programme before commencement. The subsequent role of the government in the partner country will vary from one context to another but is an important consideration in structuring DIBs.

Possible roles for the partner government include:

### Funder or co-funder of outcomes

Some emerging or developing country governments – whether national, regional or local – may be able to fund outcomes entirely from domestic resources (i.e. with no donor funding, although possibly with donor technical assistance). In that case the structure would be a Social Impact Bond along the lines of the existing SIBs. In some cases however, there may be mixed donor and developing country government funding of the Impact Bond outcomes, in which case the structure would be a Development Impact Bond because of the presence of donor funding.

### Service provider

It is possible that government entities, particularly at a local level, could be one of the service providers contracted under a DIB structure.

Attracting investment into government services may pose more of a challenge than funding private (either not-for-profit or for-profit) providers. This is in part because switching providers or pushing for service improvement in the event of poor performance would likely be more problematic. In some contexts though, using this model to provide additional funding and improved coordination for public services may be a viable approach.

### Co-monitor of contract oversight

Where services are delivered by private providers, partner governments could have a role in contract oversight. Donor agencies could use DIBs to support capacity building by creating mechanisms to improve host country governments' capacities to define and monitor outcomes-based contracts, develop robust data systems and scale up successful programmes. The extent to which host country governments are involved in monitoring contracts during service delivery will need to be judged on a case by case basis.

The notion of public vs. private service provision will be an important one for the design and implementation of DIBs in many settings. Building government capacity to work with non-state providers could be more effective than efforts to build government capacity to *deliver* services in both (1) ensuring that people receive necessary services and (2) supporting the development of local institutions in the longer term. One study from the World Bank finds evidence to support the idea that service provision by donors and other non-state actors can strengthen, rather than undermine the relationship between citizens and government in developing countries, namely if citizens view their governments as essential in leveraging and managing these external resources.[47] In cases where the public sector is lacking in its ability to provide basic social services, DIBs could provide a mechanism for coordinating non-government providers towards outcome delivery.

## 3. INVESTOR

Within a DIB framework, private sector investors provide upfront funding to service providers to enable the delivery of improved development outcomes. Since outcomes funders only make payments

47 Sacks, (2012)

if agreed outcomes are achieved, investors bear the risk of failure. The alignment of investors' financial returns to the achievement of social outcomes means that there is a strong incentive for investors to manage their investment risk by bringing discipline and rigour to performance management and outcome measurement, most likely through the hiring of a performance manager (e.g. through a specialist intermediary) to oversee the DIB on a day-to-day basis and maximise the likelihood of them receiving a return on their investment. The involvement of investors in the financing of the DIB could therefore help increase the likelihood of ultimately achieving social outcomes and financial returns.

Prior to committing finance to a DIB project, investors would undertake in-depth due diligence to assess the risk-return profile of the investment proposition. Whilst investors will likely carry out desk research, meetings with the relevant DIB parties and on-site visits themselves, they may also rely on a specialist intermediary to support them in for example, the due diligence of the intervention model and potential service providers (for example in terms of their organisational capacity, financial status, delivery track record and governance structure).

To manage their investment risk, investors would ensure that qualified personnel and robust systems are in place to provide day-to-day performance management of the portfolio of service providers. Investors could either perform this performance management and coordination role themselves or commission a third party performance manager to carry out this function. Where barriers to achieving targeted outcomes are identified, investors and/or their appointed representatives will work with relevant DIB parties to resolve these issues, such that outcomes can be delivered.

## 4. SERVICE PROVIDERS

The service providers are selected and commissioned by the investor or by their appointed representative. Unlike in Results-Based Financing contracts, the service provider is financed upfront by investors to deliver interventions and therefore do not bear all the risk of non-delivery of outcomes. Given that the DIB would likely be funding a portfolio of service providers in order to achieve desired outcomes, different providers are encouraged to work in collaboration to complement the expertise and interventions carried out by one another.

The nature of the DIB requires rigorous measurement and evaluation of outcomes and the service providers play an important role in the collection and reporting of inputs, outputs and outcomes data. Based on this data (which is quality-checked by investors and/or their appointed representative), the efficiency and quality of services delivered, and the effectiveness of interventions in achieving desired results can be assessed. Where areas for improvement are identified, the service providers will work with investors and/or their appointed representative to make adjustments such that better outcomes can be achieved.

## 5. SPECIALIST INTERMEDIARY / CO-ORDINATING AGENCY

In the development of Social Impact Bonds, a specialist intermediary plays the key role of bringing all the parties together to make the transaction happen. This role, which involves representing the parties not in the room and negotiating an agreement that fits the needs of all those engaged in the process, is likely to be just as important in the context of DIBs.

In addition to the role of intermediation, there are a number of additional roles in building and implementing DIBs which need a combination of mission-driven ethos and analytical rigour where a specialist intermediary can play a part. These include feasibility assessment, contract development, capital raising, due diligence, performance management, service commissioning and capacity building. They are outlined below from the perspective of the key stakeholder engaged. In early DIBs, as in SIBs, it may be appropriate for a single organisation to play all these roles. Over time and as the market develops, different organisations are likely to take on different roles in a given transaction and outcomes funders, partner government, investors and service providers may develop the capability and capacity to take these on themselves.

### Outcomes funders/partner government perspective – feasibility assessment and contract development

From the outcomes funders and partner government's perspective, a specialist intermediary could provide support in developing outcomes-based contracts that are of interest to social investors, making it possible to i) raise capital for the pre-financing of desired interventions and ii) involve a private-sector stakeholder group who takes on the risk of failure to deliver outcomes and who are therefore incentivised to

drive the achievement of those outcomes. Intermediaries could also support the design of the procurement process, where necessary, to enable social investment to play a role in financing the contract.

In Development Impact Bonds where the intermediary is responsible for commissioning service providers to deliver interventions on behalf of investors, the outcomes funders and partner government will not have a direct contractual relationship with service providers (see Section F below on DIB structures). In this case, the outcomes funders and partner government can focus on evaluating the outcomes of the programme, rather than having to manage each individual service provider contract and having to coordinate activities between providers on the ground. The intermediary will report regularly to the outcomes funders and partner government, providing information on key performance indicators and highlighting challenges that need to be resolved in order to improve the delivery of results.

**Investor perspective – due diligence and performance management**

From the investor perspective, specialist intermediaries can bring knowledge of outcomes contract design and implementation to the DIB project. The intermediary understands investor needs and priorities and can reflect these in discussions with the outcomes funders, partner government and service providers when developing the DIB contract to ensure that the investment proposition remains attractive to investors.

Where specialist intermediaries act on behalf of investors post contract completion, they can bring contract management and stakeholder engagement expertise to the project, helping to ensure engagement of key parties in supporting contract delivery and ensuring that potential risks to the project are properly managed and mitigation strategies are in place. It is important that intermediaries playing this role have experience in establishing robust performance management and monitoring systems such that project needs, activities and outcomes can be monitored and can be used as active, diagnostic tools to highlight opportunities to improve the services delivered. This can help to reassure investors that services will be delivered efficiently and effectively, increasing the chances of generating improved outcomes and thereby reducing the financial and reputational risks associated with the investment. Such an intermediary would report regularly to investors to keep them updated on progress.

### Service provider perspective – commissioner and capacity builder

Service providers, with existing relationships to service users and their communities, may be well placed to assess what will work and hence may benefit from outcomes-based contracts in which the service offering is less tightly specified. However, many providers may be unfamiliar with the requirements for delivering in an outcomes-based contract and in the earlier stages of the DIB development process, a specialist intermediary could support service providers in thinking through the necessary processes and resources needed for participation in a DIB.

In the later stages of the DIB development process, an intermediary may be responsible for commissioning service providers on behalf of investors. Such intermediaries can also play an important role in capacity building, such that service providers are supported in developing the processes and systems necessary to deliver services within an outcomes-based contract. For example, the intermediary may work with the service provider to establish data monitoring and evaluation systems to keep track of project expenditure, management information and outcomes.

## F. DIB STRUCTURES

During development or after agreement of the business case by outcomes funders and other stakeholders, consideration will need to be given to the potential DIB structures.

There are several ways to contract a DIB and the appropriate legal structures depend on a number of factors. In particular, the roles that different DIB parties intend to play and the desired level of flexibility to adapt service provision to changing circumstances will determine the contractual relationships between the various parties. Two examples of DIB structures are illustrated below.

### Contracting via a New Corporate Entity

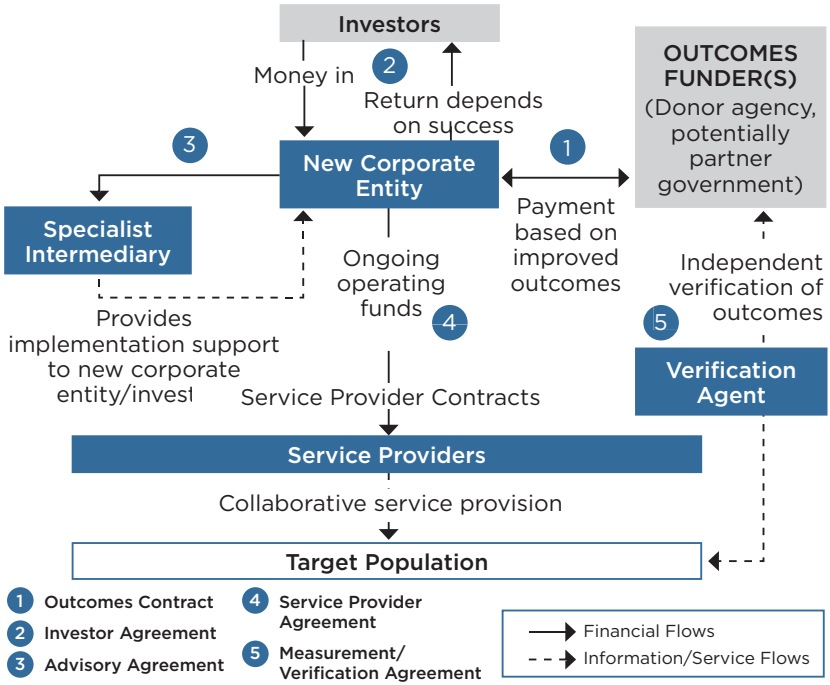
In this scenario, contracts are held by a new corporate entity established for the purpose of holding investment from DIB investors and for holding contracts with the various parties. These parties include: the outcomes funders, service providers, investors and the specialist intermediary.

This structure reduces the level of investor risk over who is providing services as it gives the flexibility to change providers or allocate resources differently depending on measured performance and impact. Since it is the new corporate entity which subcontracts service providers to deliver services – rather than the outcomes funder directly contracting with service providers – the new corporate entity has flexibility to subcontract with additional providers where new needs emerge or to change providers where necessary, without impacting the outcomes contract between it and the outcomes funder.

Funds flow from investors to the new corporate entity, which is then used to finance service providers' delivery costs upfront. If outcomes are achieved, payments flow from the outcomes funders to investors via the Entity, which is contracted by the outcomes funder to deliver the DIB contract.

*Figure 9* below illustrates how this contracting structure works in practice and the various legal agreements that sit between the DIB parties.

FIGURE 9. CONTRACTING VIA A NEW CORPORATE ENTITY



Contracting via a New Corporate Entity

1. **Outcomes Contract:** This details the relationship between the Outcomes Funders and the new corporate entity (the organisation responsible for designing and implementing the strategy to deliver outcomes), under which payment from outcomes funders is contingent on the new corporate entity achieving agreed social outcomes. In a developing country context donor agencies and partner governments could be involved as co-commissioners of outcomes.
2. **Investment Agreement:** This is an agreement between the new corporate entity and investors, specifying how much investor capital will be drawn down (and the timeline for drawdown) and terms under which payments are made to investors.
3. **Advisory Agreement:** If the new corporate entity has a specialist intermediary acting on its behalf in terms of performance management, data monitoring or evaluation, there will also be an advisory agreement between the new corporate entity and the intermediary detailing the services to be supplied by the intermediary and the fee paid by the new corporate entity for these services.
4. **Service Provider Agreement:** There will be a service provider agreement between the new corporate entity and each of the service providers, specifying what services will be delivered, payment and reporting schedules.
5. **Measurement/Verification Agreement:** This is an agreement between the outcomes funders and the measurement/verification agent, the organisation contracted to independently measure outcomes or audit the results reported.

**Examples where this contracting structure has been applied:**

- Essex County Council Social Impact Bond focused on young people at risk of entering care or custody
- Department for Work and Pensions (DWP) Innovation Fund Social Impact Bond focused on youth unemployment

### Direct contracting between outcomes funders and service providers

In this scenario, the outcomes-based/payment-by-results contract is between the outcomes funders and a lead or sole service provider. There is an investor agreement directly between investors and the service provider. This structure reduces the potential to switch (or add) providers further down the line, since the outcomes contract is between the outcomes funders and a particular service provider. Investors may therefore wish to do greater due diligence on the service provider and its management capacity.

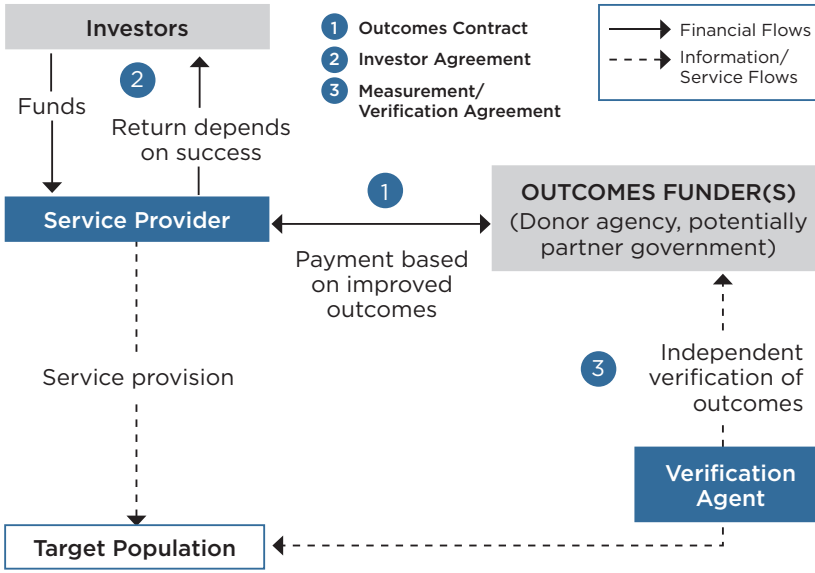
## Direct contracting between outcomes funders and service provider

1. **Outcomes Contract:** This details the relationship between the outcomes funders and the service provider (the organisation responsible for designing and implementing the strategy to deliver outcomes), under which payment from outcomes funders are contingent on the service provider achieving agreed social outcomes. In a developing country context donor agencies and partner governments could be involved as co-commissioners of outcomes.
2. **Investor Agreement:** This is an agreement between the investors and the service provider, specifying how much investor capital will be drawn down (and the timeline for drawdown) and terms under which payments are made to the investors.
3. **Measurement/Verification Agreement:** This is an agreement between the outcomes funders and the measurement/verification agent, the organisation contracted to independently measure outcomes or audit the results reported.

**Example where this contracting structure has been applied:**

- Greater London Authority (GLA) Social Impact Bond focused on rough sleepers

**FIGURE 10. CONTRACTING DIRECTLY BETWEEN OUTCOMES FUNDERS AND SERVICE PROVIDER**



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# Glossary

| | |
|---|---|
| Baseline | A baseline is used to measure the progress of interventions in achieving target outcomes, against a scenario in which these interventions were absent. A number of different approaches to establishing a baseline can be taken depending on how and what is being measured. |
| Historical Baseline | For more information, see p. 102. |
| Live Comparison Group | For more information, see p. 101. |
| Randomised Control Trials | For more information, see p. 100. |
| Cash on Delivery Aid | Cash on Delivery (COD) Aid is a type of outcomes-based contract pioneered by the Center for Global Development. Under COD Aid, donors pay partner governments for measurable and verifiable progress on specific, pre-agreed outcomes, i.e. USD100 for every child who completes primary school and takes a test above baseline. |
| Capital Protection | This is a protection provided to an investor against the loss on the initial amount invested. For example, if an investment has 100% capital protection, then the investor is guaranteed repayment of 100% of the amount of capital he or she invests. |
| Capital Requirement | The total amount of money needed from investors to fund a programme. |
| Cost of Capital | This is the rate of return that investors would expect to earn in an alternative investment of equivalent risk. |
| Evaluation | Evaluation of development assistance describes what has happened and why, using reliable and transparent methods of observation and analysis.* |

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| High Net Worth Individual (HNWI) | A high-net-worth individual is typically defined as a person having investable finance (financial assets not including primary residence) in excess of US$1 million. |
| Inputs | Inputs are the financial, human, and other resources required to achieve outputs in a given project, including time, people (staff, volunteers), funds, materials, equipment, and technology. |
| Impact Investing | Impact investing is an investment strategy whereby an investor actively seeks to invest their capital in companies, organisations and funds which aim to generate social as well as financial benefits. |
| Institutional Investors | Entities with large amounts of money to invest and a diverse portfolio of investments with which to spread their risk are termed institutional investors. These include: investment companies, mutual funds, insurance companies, pension funds, investment banks etc. |
| Investment Class | Investment class is the term given to different types of investors depending on the level of return they are seeking and the level of risk they are willing to take based on that return. |
| Investment Term | Investment term is the length of time that it takes for an investor to get his/her money back – i.e. principal plus return. In a DIB, investors only get paid if outcomes are achieved. |
| Investor | The role of the investor in a DIB contract is to provide funds upfront for services, to be repaid (principal plus return) if – and only if – outcomes are achieved. |

* DFID, (2005)

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|---|---|
| Investor Proposition | The investor proposition is a term used to describe the overall proposal to investors – this includes the total capital required, what the target return is and when and how the capital and return will be repaid. |
| Liquidity | Liquidity is an asset's ability to be sold without causing a significant movement in the asset price and with minimum loss of value. The essential characteristic of a liquid market is that there are always ready and willing buyers and sellers. |
| New Corporate Entity | The DIB structure requires the establishment of a new legal structure (new corporate entity) for the purpose of holding investment from DIB investors and for holding contracts with the various parties. |
| Official Development Assistance (ODA) | The Development Assistance Committee (DAC) defines ODA as "those flows to countries and territories on the DAC List of ODA Recipients and to multilateral institutions which are:<br>i. provided by official agencies, including state and local governments, or by their executive agencies; and<br>ii. each transaction of which:<br>a) is administered with the promotion of the economic development and welfare of developing countries as its main objective; and<br>b) is concessional in character and conveys a grant element of at least 25 per cent (calculated at a rate of discount of 10 per cent)." |
| Outcomes Funder | The role of the outcomes funder in a DIB contract is to pay investors for outcomes (principal plus return) if – and only if – outcomes have been achieved, as confirmed by independent verification. |

| | |
|---|---|
| Outcomes | There are different ways to define outcomes, depending on the case at hand. For example, the World Bank defines project outcomes as the uptake, adoption or use of project outputs by the project beneficiaries. Depending on the horizon over which outcomes are measured, an Intermediate Outcome may be used, which specifies a result proximate to an intended final outcome, but likely more achievable in the lifetime of a project. Example: Teachers use the new teaching methods (intermediate outcome) to improve learning among students (final outcome). |
| Outcomes Metric | Outcomes metrics denote the way in which outcomes are collected, reported and measured. In a DIB, outcome metrics ultimately determine whether (and how much) investors will get paid for their initial investment. |
| Binary outcome metric | A binary outcome metric is one that provides a "yes/no" answer. Examples of binary metrics include: whether or not a child dropped out of school, whether an individual reoffended or not within 12 months of discharge from prison, whether or not a community installs a chlorine dispenser, etc. |
| Cohort-level outcome metric | A cohort-level outcome metric looks at the performance of a group of individuals and can be used to measure improvement in the average performance of all people being measured. For example, a cohort-level outcome metric could be the average number of convictions committed by a cohort of people. In this instance, the cohort-level metric might create an incentive to target those with the highest volume of offences – the less crime they commit, the greater the reduction in the overall average offending behaviour across the whole group of people, thereby incentivising providers to work with the most difficult cases. |

* World Bank website, Results Terminology: http://siteresources.worldbank.org/INTISPMA/Resources/383704-1184250322738/3986044-1250881992889/04_WorldBank_Results_Terminology.pdf

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| Frequency outcome metric | A frequency outcome metric is one that measures the number of times that an event occurs within a given period. Examples of frequency outcome metrics are: number of days in the year that a child attends school, the number of conviction events associated with an individual within 12 months of discharge from prison, the number of times that a community purchases chlorine for water treatment over a certain time period, etc. |
| Individual-level outcome metric | An individual-level outcome metric measures the success of each individual. For example, in developing a SIB focused on funding a range of services that help people achieve sustained recovery from substance misuse, it was proposed that one of the performance indicators, namely reduced use of problem drugs and/or dependent drinking, should be measured at the level of the individual. By measuring against an individual's own behaviour at the start of treatment, outcome payments are made to incentivise and reward incremental progress that represents distance travelled. The drawbacks of individual-level outcome metrics are that it can be time-consuming and costly to measure everything on an individual measure and could potentially be intrusive for service users. |
| Outcomes Pricing | Outcomes pricing is the way in which the price of desired social outcomes is determined. There are a number of potential approaches to pricing outcomes. |
| Cashable Benefits | For more information, see p. 106. |
| Cost-Plus | For more information, see p. 105. |
| Historical Cost | For more information, see p. 105. |
| Market Determined Outcome Value | For more information, see p. 108. |

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| Quantified Social Value | For more information, see p. 107. |
| Outputs | Outputs are the supply-side deliverables, including the events, products, capital goods or services that result from a project's inputs (i.e. construction of a school).<br>The key distinction between an output (a specific good or service) and an outcome is that an output typically is a change in the supply of goods and services (supply side), while an outcome typically reflects changes in the utilisation of goods and services (demand side). Outputs are often intended to lead to outcomes/impact. |
| Partner Government | Partner government is the term given to the government of the country in which the DIB intervention is implemented. |
| Payment Mechanism | The payment mechanism details the way in which outcome payments are structured, e.g. conditions that trigger outcome payments, the "price" of outcomes achieved, and the frequency at which payments are made, etc. |
| Perverse Incentives | A perverse incentive is one that has an unintended and undesirable result, contrary to the interests of the incentive makers. |
| Pull Mechanisms | Pull mechanisms are results-based incentives designed to overcome market failures and encourage innovation and engagement. Pull mechanisms reward successful innovations ex post, compared with push mechanisms, which fund potential innovations ex ante. |
| Results-Based Aid | Results-based aid is a form of payment by results in which the risk for delivery of results is transferred to partner governments. |
| Results-Based Financing | Results-based financing is a form of payment by results in which the risk for delivery of results is transferred to service providers or suppliers. |

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| Return | Return is a way to measure the performance of an investment. With DIBs, the return is the additional payment made to investors for the use of their capital, adjusted to take into account the risk of that investment, and commensurate with progress made in achieving desired social outcomes. |
| Risk | Risk is the probability of whether or not the programme will be delivered as planned and therefore whether the anticipated outcomes will be achieved. There are a number of potential types of risk associated with delivering outcomes. |
| Demand Side Risk | These are risks relating to interventions where demand from the target population is essential to their uptake, continuation and ultimate success. For more information, see p. 113. |
| Intervention Risk | These are risks arising from uncertainty surrounding the intervention(s) itself and could be a result of either a lack of proven track record, application to a different geography or implementation at a larger scale than has previously been done. For more information, see p. 111. |
| Operational Risk | These are risks arising from setting up and delivering interventions to the target population. For more information, see p. 112. |
| Risk Return Profile | The risk return profile outlines the level of return expected from an investment given the risks undertaken. The underlying assumption is that higher levels of risk require higher returns for the investment to be “attractive” to investors. |
| Service Provider | The service provider delivers services to the target population. They could also play the role of a coordinating agency within a DIB contract. |
| Social Investment | Social investment is the provision and use of capital to generate social as well as financial returns. See also, impact investing. |

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| Specialist Intermediary | The term specialist intermediary has been used to describe organisations aiding the development and implementation of DIBs. Their role can range from supporting early feasibility studies and working with service providers, to engaging investors, capital raising and supporting performance management. In this early stage of development, intermediaries could play a vital role in championing the model, bringing relevant DIB parties together and helping to negotiate a solution that works for all parties. |
| Target Population | The term target population denotes those individuals or communities to which services will be made available/delivered as part of the programme. |
| Verification | This term is used to mean an audit of results achieved to ascertain the validity and reliability of the information. For example, verification could involve some form of repeated measurement of the original or source data. For more information, see p. 103. |
| Working Capital | This term is used to mean capital that enables a firm to continue its operations, whilst having sufficient funds to satisfy both maturing short-term debt and upcoming operational expenses. |

# Acronyms

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| AMC | Advance Market Commitment |
| ARVs | Antiretroviral Drugs |
| ART | Antiretroviral Treatment |
| ASER | Annual Status of Education Report |
| BDS | Business Development Services |
| CGD | Center for Global Development |
| CHAI | Clinton Health Access Initiative |
| COD Aid | Cash on Delivery Aid |
| COCTU | Coordinating Office for Control of Trypanosomiasis in Uganda |
| DAC | Development Assistance Committee |
| DALY | Disability Adjusted Life Year |
| DCLG | Department of Communities and Local Government |
| DfID | Department for International Development |
| DIB | Development Impact Bond |
| DWP | Department of Work and Pensions |
| ECC | Essex County Council |
| ESCO | Energy Services Company |
| EVS | Education Vouchers Scheme |
| FAS | Foundation Assisted Schools |
| FCA | Financial Conduct Authority |
| FHA | Fund Holding Agency |
| GAVI | Global Alliance for Vaccines and Immunization |
| GLA | Greater London Authority |
| GPOBA | Global Partnership for Output Based Aid |
| GHG | Green House Gas |
| HNWI | High Net Worth Individual |
| HPTN | HIV Prevention Trials Network |
| IDA | International Development Association |
| ISS | Immunisation Services Support |

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| LCPS | Low Cost Private Schools |
| NGO | Non-Governmental Organisation |
| ODA | Official Development Assistance |
| OECD | Organisation for Economic Cooperation and Development |
| OOS | Out Of School |
| OPIC | Overseas Private Investment Corporation |
| PBF | Performance Based Financing |
| PEAS | Promoting Equality in African Schools |
| PEF | Punjab Education Foundation |
| QAT | Quality Assurance Tests |
| RBA | Results-Based Aid |
| RBF | Results-Based Financing |
| RCT | Randomised Control Trial |
| RIU | Research Into Use |
| SACEMA | South African Centre for Epidemiological Modelling and Analysis |
| SEC | Securities and Exchange Commission |
| SIB | Social Impact Bond |
| SME | Small and Medium sized Enterprise |
| SOS | Stamp out Sleeping Sickness |
| SPV | Special Purpose Vehicle |
| TasP | Treatment as Prevention |
| TB | Tuberculosis |
| UCE | Uganda Certificate of Education |
| USAID | United States Agency for International Development |
| UTCC | Uganda Trypanosomiasis Control Council |

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