North/Latin America (Wide Area)

North/Latin America (Wide Area) Information Gathering and Research on Social Impact Bonds in LAC

Final Report

January 2022

Japan International Cooperation Agency (JICA)

Dream Incubator Inc.



Table of Contents

| Table of Contents | |
|--|---|
| List of abbreviations | 3 |
| 1. Introduction | 5 |
| 1-1 Background | 5 |
| 1-2 Study Overview | 7 |
| 2. Analysis results of SIB trends across the globe | 4 |
| 2-1 Overview of SIB | 5 |
| 2-2 The worldwide presence of SIB | 1 |
| 2-3 SIB trends in Japan | 7 |
| 2-4 SIB trends in OECD DAC List countries | 5 |
| 3. SIB-related study results in the focus countries | 3 |
| 3-1 SIB situation in LAC | 4 |
| 3-2 LAC SIB case studies | 5 |
| 3-3 Key stakeholders and their initiatives | 7 |
| 3-4 Current situation of SIB-related legislative systems in LAC | 9 |
| 4. SIB establishment process and associated hurdles | 1 |
| 4-1 General establishment process of SIBs | 2 |
| 4-2 SIB process-specific challenges and potential solutions | 3 |
| 5. Identification of potential SIB themes in LAC | 5 |
| 5-1 Ripple effect scenario for sustainable SIB development in LAC | 7 |
| 5-2 SIB theme screening methodology | 1 |
| 5-3 Selection results of potential SIB themes | 7 |
| 6. Case study on SIB scheme applicability into potential SIB themes in LAC | 8 |
| 6-1 Selection of key SIB themes | 9 |
| 6-2 SIB scheme applicability to livelihood improvement of farmers in Colombia | 9 |
| 6-3 SIB scheme applicability to crime decline in Brazil | 3 |
| 6-4 SIB scheme applicability to water supply and sewerage infrastructure in Peru | 5 |
| 6-5 SIB scheme applicability to solid waste issue in Peru | 9 |

| 7. Results of our discussions with the local governments | |
|---|-----|
| 7-1 Selection of themes for our discussions with the local governments | |
| 7-2 Results of our discussions on SIB applicability to the improvement of farmer | s' |
| livelihoods in Colombia | |
| 7-3 Results of our discussions on SIB applicability to solid waste issues in Peru | 97 |
| 8. Summary: | |
| 8-1 Significance of SIBs in LAC recognized through this study | 100 |
| 8-2 Proposed process for SIB program development | |
| 8-3 JICA's possible cooperation scenarios for SIB project implementation | 106 |
| 9. Reference list | 108 |

List of abbreviations

| ADR | Agencia de Desarrollo Rulal |
|--------|---|
| BFM | Bridge Fund Management |
| EBPM | Evidence Based Policy Making |
| CAE | Economic Affairs Committee |
| CCJ | Justice and Citizenship Commission |
| CFC | the Common Fund for Commodities |
| CIS | Social Impact Contract |
| COO | Chief Operation Officer |
| DAC | Development Assistance Committee |
| DFI | Development Finance Institution |
| DFID | Department for International Development |
| DIB | Development Impact Bond |
| DI | Dream Incubator Inc. |
| FY | Fiscal Year |
| ESG | Environment Social Governance |
| HLFPPT | Hindustan Latex Family Planning Promotion Trust |
| IDB | Inter-American Development Bank |
| JICA | Japan International Cooperation Agency |
| KPI | Key Performance Indicator |
| LAC | Latin America and the Caribbean |
| METI | The Ministry of Economy, Trade and Industry |
| NGO | Non-Governmental Organization |
| NPO | Non-Profit Organization |
| ODA | Official Development Assistance |
| OECD | Organisation for Economic Co-operation and Development |
| OPIC | Overseas Private Investment Corporation |
| PFI | Private Finance Initiative |
| PFS | Pay For Success |
| PSI | Population Services International |
| SECO | State Secretariat for Economic Affairs |
| SIB | Social Impact Bond |
| U.K. | United Kingdom |
| URT | Unidad Administrativa Especial de Gestión de Restitución de Tierras |

| U.S. | United States |
|-------|---|
| USAID | U.S. Agency for International Development |

1. Introduction

1-1 Background

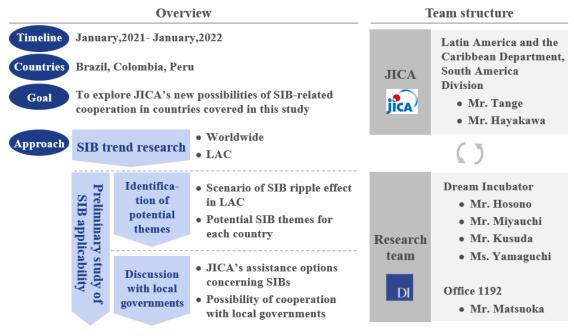
Social impact bond (hereinafter referred to as "SIB") is an innovative funding mechanism that enables private investors to enter into performance-based contractual arrangements with the public sector with the ultimate goal of achieving better social outcomes in certain areas. The SIB model offers financial incentives when the objectives pre-determined by the governing authority and private-sector service providers are achieved. In line with the recent trend of Evidence-Based Policy Making (EBPM) that aims to satisfy the objective requirement of a clear link between investment and impact, SIB gains popularity as a solution for development challenges that OECD DAC List countries are now experiencing and also as a financial instrument used not only to attract public finance from traditional donors but also from private-sector such as private foundations.

Particularly in Latin America and the Caribbean (LAC) where heightened income inequality and a large number of social issues need to be addressed through the redistribution of wealth, the financial stringency caused by populist subsidy policies and tighter fiscal management practiced under fiscal responsibility laws necessitate more suitable fiscal policies. High potential demand for SIB is therefore expected as one of the measures to improve the efficiency of public expenditures including subsidies and other different forms.

Served as a new solution to problems faced by developing economies along their path toward development, SIB is deemed complementary with other traditional cooperation schemes and approaches that the Japan International Cooperation Agency ("JICA") is currently adopting there, and that alone makes this study of the SIB potentials more meaningful for JICA.

1-2 Study Overview

Study Overview

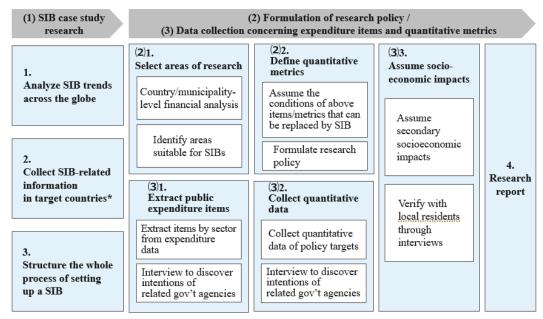


• Figure 1: Overview of study

1-2-1 Purposes and approach

The purpose of this study is to have an overview and a close analysis of the central and local government spending in LAC countries- especially in Colombia, Peru, and Brazil, collect information regarding expenditures potentially incorporated into SIB programs, and to explore the possibility of cooperation between various stakeholders and JICA with respect to SIB-related projects. For the realization of this study, two major steps will be necessary: Step 1: Analyze SIB trends across the globe and target countries, Step 2: Formulate hypothetical ripple-effect scenarios for a sustainable development of SIBs in LAC based on insights drawn from Step 1. Then, high-potential SIB themes in three countries covered by this study will be identified and brought to discussions with local governments to reveal the feasibility of setting up SIBs with those themes and JICA's involvement.

Overall work plan (excerpt from DI's initial proposal)



Colombia, Peru, Brazil

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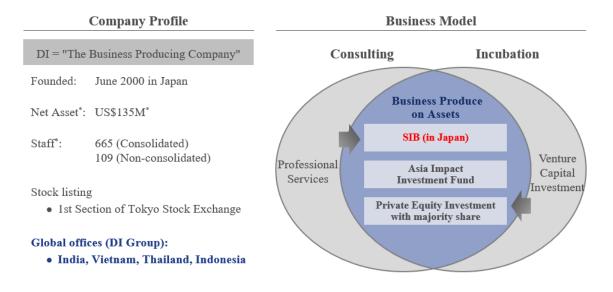
Figure 2: Overall work plan (excerpt from DI's initial proposal)

1-2-2 Organizational structure

This study is carried out in collaboration with IDB Lab, innovation laboratory of the Inter-American Development Bank (IDB) Group. IDB Lab has provided us with various insights into SIB-focused innovative development assistance approaches.

This study is conducted mainly by Dream Incubator Inc. ("DI"), headquartered in Japan. DI's business model is highlighted by a multifaceted and interactive combination of strategy consulting and incubation initiatives such as management support and venture capital investment in and outside Japan. DI's main mission is centered on solving various social issues and creating new businesses, backed by its varied expertise and strong track record in investment funds, management and startup support, as well as public-private partnership building.

DI's snapshot



As of <u>September</u>, 2020
 Social impact bonds
 Asset under managemen

Figure 3: DI's snapshot

DI has recently launched a SIB - the very first one in Japan and among Asia's biggest funds. The first project it funds aims at preventive care for the elderly people in Toyota City. DI's COO Kyohei Hosono who is presently overseeing SIB and impact investment initiatives of DI, has been assigned as project team leader for this study. The following table shows all the project team members involving in this study.

| Tuble 1. List of project team members | | | | | | |
|---------------------------------------|------------------|----------------------|--|--|--|--|
| Scope of work | Full name | Company | | | | |
| Chief officer/ | Kyohei Hosono | Dream Incubator Inc. | | | | |
| Impact investing | | | | | | |
| Public policies | Makoto Miyauchi | Dream Incubator Inc. | | | | |
| Public finance management | Hiroshi Matsuoka | Office 1192, LLC | | | | |
| Finance | Ryosuke Kusuda | Dream Incubator Inc. | | | | |
| Compilation of research | Yuriko | Dream Incubator Inc. | | | | |
| (Overall support) | Yamaguchi | | | | | |

• Table 1: List of project team members

1-2-3 Schedule

The study was originally scheduled from January 28th, 2021 to November 31st, 2021, but was extended to January 28th, 2022 to

secure opportunities for discussion with the local governments.

The overall study timeline is as follows.

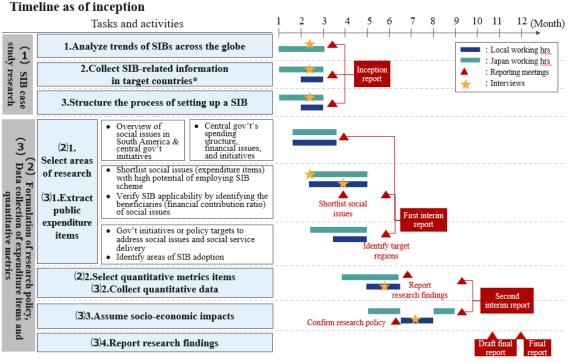


Figure 4: Timeline as of inception

1-2-4 External meeting record

Several interviews with stakeholders in and outside of JICA have been conducted to verify

the feasibility of establishing SIBs in LAC. The table below provides a list of meetings during this study.

| Date | Participants | Agenda |
|-----------------------------|--|-----------------------------------|
| May 27 th , 2021 | JICA Brazil Office (Mr. Masayuki Eguchi, | Potential SIB |
| | Mr. Shinji Sato, Mr. Ryunosuke Kataoka), | themes in Brazil |
| | JICA Latin America and the Caribbean | |
| | Department (Mr. Taishi Hayakawa) | |
| June 1 st , 2021 | JICA Colombia Office (Mr. Naoki Kamijo, | Potential SIB |
| | Mr. Yoichi Ueno), JICA Latin America and | themes in Colombia |
| | the Caribbean Department (Mr. Taishi | |
| | Hayakawa) | |

| Date | Participants | Agenda |
|----------------------------------|---|---|
| June 3 rd , 2021 | JICA Peru Office (Mr. Tomoyuki Odani, | Potential SIB |
| | Ms. Yumi Nakagawa, Ms. Yun Yamanaka), | themes in Peru |
| | JICA Latin America and the Caribbean | |
| | Department (Mr. Taishi Hayakawa) | |
| June 28 th , 2021 | IDB Lab (Ms. Christine Ternent, Mr. | Hypothesis of |
| | Tetsuro Narita), JICA Latin America and the | sustainable SIB |
| | Caribbean Department (Mr. Takayoshi | development scenarios |
| | Tange, Mr. Shohei Kashiwagi, Ms. Misa | for LAC |
| | Haratsu, Ms. Minori Chitani, Mr. Taishi | Potential SIB |
| | Hayakawa) | themes and their |
| | | feasibility in LAC |
| August 16th, 2021 | JICA Governance and Peacebuilding | SIB feasibility for |
| | Department (Mr. Chigiru Yamashita, Mr. | crime reduction in |
| | Satoshi Ikegami, Mr. Takashi Ishii), JICA | Brazil |
| | Latin America and the Caribbean | |
| | Department (Mr. Takayoshi Tange, Mr. | |
| | Taishi Hayakawa) | |
| August 18 th , 2021 | Nippon Koei Co., Ltd. | Issues in water |
| | | supply and sewerage |
| | | infrastructure and SIB |
| | | feasibility in Peru |
| August 26th, 2021 | Nippon Koei Co., Ltd. | Solid waste issues |
| | | and SIB feasibility in |
| | | Peru |
| August 27th, 2021 | JICA Global Environment Department (Mr. | SIB feasibility for |
| | Shigeyuki Matsumoto, Ms. Yoko Hattori, | water and sewerage |
| | Mr. Takahiro Otsuka, Mr. Yuto Hyakkan), | improvement in Peru |
| | JICA Latin America and the Caribbean | |
| | Department (Mr. Takayoshi Tange, Mr. | |
| | Taishi Hayakawa) | |
| September 3 rd , 2021 | JICA Global Environment Department (Ms. | SIB feasibility for |
| | Sanae Yoshida, Mr. Shiro Amano), JICA | solid waste |
| | Latin America and the Caribbean | improvement in Peru |
| | Department (Mr. Takayoshi Tange, Mr. | |
| | Taishi Hayakawa) | |

| Date | Participants | Agenda |
|----------------------------------|---|---|
| September 3 rd , 2021 | JICA Evaluation Department (Mr. Masanari | SIB feasibility for |
| | Yanagiuchi, Ms. Aya Tamura, Ms. Kayo | crime reduction in |
| | Matsunobu, Ms. Moeko Imayoshi), JICA | Brazil |
| | Latin America and the Caribbean | |
| | Department (Mr. Takayoshi Tange, Mr. | |
| | Taishi Hayakawa) | |
| September 6 th , 2021 | JICA Economic Development Department | SIB feasibility for |
| | (Mr. Masayuki Miyazaki), JICA Latin | improving farmers' |
| | America and the Caribbean Department | livelihoods in |
| | (Mr. Takayoshi Tange, Mr. Taishi | Colombia |
| | Hayakawa), JICA expert (Mr. Toshiaki | |
| | Kurihara) | |
| October 14 th , 2021 | Instiglio, JICA Latin America and the | • Possible |
| | Caribbean Department (Mr. Takayoshi | cooperation for SIB |
| | Tange, Mr. Shohei Kashiwagi, Ms. Minori | development in LAC |
| | Chitani, Mr. Taishi Hayakawa) | |
| November 16 th , 2021 | Ministry of the Environment of Peru, JICA | SIB feasibility for |
| | Peru Office (Mr. Tomoyuki Odani, Ms. | solid waste |
| | Chiaki Takabatake, Ms. Yun Yamanaka), | improvement in Peru |
| | JICA Latin America and the Caribbean | |
| | Department (Mr. Takayoshi Tange, Mr. | |
| | Shohei Kashiwagi, Mr. Taishi Hayakawa, | |
| | Ms. Chihiro Ogata) | |
| December 23 rd , 2021 | ADR (Agencia de Desarrollo Rulal) of | SIB feasibility for |
| | Colombia, JICA Colombia Office (Mr. | improving farmers' |
| | Naoki Kamijo, Mr. Yoichi Ueno), JICA | livelihoods in |
| | Governance and Peacebuilding Department | Colombia |
| | (Mr. Takumi Sunohara), JICA Latin | |
| | America and the Caribbean Department | |
| | (Mr. Takayoshi Tange, Mr. Shohei | |
| | Kashiwagi, Mr. Taishi Hayakawa, Ms. | |
| | Chihiro Ogata), JICA expert (Mr. Toshiaki | |
| | Kurihara) | |

2. Analysis results of SIB trends across the globe

2-1 Overview of SIB

2-1-1 Overview of SIB scheme

Social impact bond's model

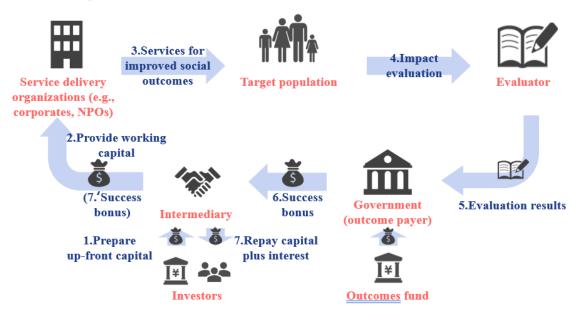


Figure 5: Social impact bond's model

Social impact bond ("SIB") - a type of publicprivate partnership, seeks to maximize social impact by outsourcing social services to private sector actors.

As shown in Figure 5, there are seven major steps in the implementation of a SIB scheme: 1) Private investors (institutional investors, foundations, individual investors) provide upfront capital to an intermediary to finance social programs, 2) The outcome payer (typically the government) contracts with private-sector service providers through the intermediary to deliver social services with pre-determined outcomes, 3) Contracted service providers work with beneficiaries to render the services, 4) An independent evaluator evaluates the outcomes or accomplishments of the project, 5) The evaluator reports evaluation results to the government, 6) The government pays the intermediary based on the achievement of agreed-upon outcomes, 7) The intermediary repays the investors the principal amount plus interest according to the financial incentives received.

2-1-2 The invention of SIB

The SIB was created in the course of the consideration of social investment of the U.K. government who advocates small government. From the Thatcher administration, the trend of small government brought the change of policies to leverage the power of private sector. The Conservative Party introduce PFI as part of its market-based policies, along with asset privatization of government sales and enterprises. However, these policies have resulted in a transfer of risk to the private sector. From 1997, the Blair government of the Labor Party had shifted to a philosophy of optimal risk sharing between the public and

private sectors. In that time, the committee to study the concept of distributing dormant deposits of retail banks to youth and social projects was formed. The committee was the forerunner of Social Finance, which was established in 2007 to develop SIBs and become the main actor of worldwide SIB formation.

SIB was invented to better balance the risks between the outsourcer and outsourcee arising out of outsourcing in the public sector. Figure 6 shows the transition concerning the practice of outsourcing and contracting with the private sector in public service delivery.

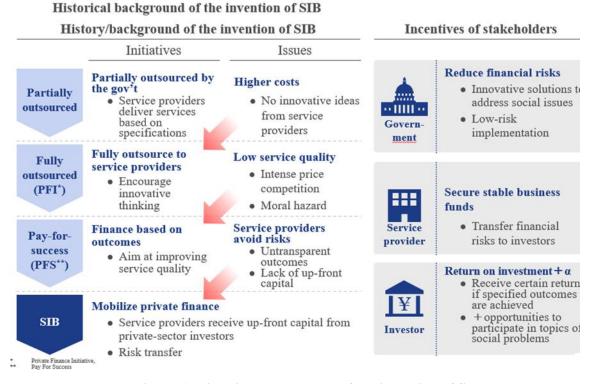


Figure 6: Historical background of the invention of SIB

The partial outsourcing model in many cases is not cost effective. The reason is that specifications are pre-determined by the government with merely a part of the services rendered by private sectors to utilize their capabilities for public-sector initiatives, leaving little room for innovation from the service providers' standpoint. To solve this problem, the private finance initiative (PFI) model is then developed. Unlike previous schemes with detailed specifications included in contract documents, the PFI model instead allows private-sector service providers to maximize their capability in service delivery through entering into outsourcing agreements as an equal partner with the public sectors to offer certain services in a comprehensive manner placing emphasis on results and performance. Plus, competitive bidding driven by market dynamics is expected to lower costs for governments. But there is, however, another problem. The government has to bear a greater risk such as deterioration in service quality following the consignment due to price competition fierce of bidding. Particularly, many private-sector service providers tend to focus on winning the bid by offering low-quality services for a lower price. The pay-for-success (PFS) scheme is intended to tackle this issue of moral hazard, but at the same time it has posed a big risk to service providers due to the lack of upfront capital and unknown prospect of outcomes.

SIB opens the door to solving these problems by looking at private investors' demand of

funding projects for better social outcomes, mobilizing upfront capital from them to finance service providers, and enabling better risk sharing among relevant stakeholders. The SIB model can maximize social impact while financial risks are transferred away from the government and service providers to the investors.

2-1-3 SIB stakeholders' roles and incentives

As shown in Figure 7 below, there are different incentives for each stakeholder involved.

SIB stakeholders' roles and incentives

| | Roles | Examples of actors | SIB incentives |
|---------------------|--|---|---|
| Gover- nment | Outcome payment | Government (central and municipal government) | Spending cutsImproved outcomes |
| Interme- diary | Design of scheme, contractual arrangement with stakeholders, service provider selection and management | NPOs, commercial banks, investment banks, think tanks (in some cases, SIBs are implemented without intermediaries) | Address social issues Secure revenue Some SIBs offer small success payments for intermediaries in addition to their service fees |
| Investor | Funding | Foundations, philanthropists, int'l financial institutions, impact investment funds, banks, investment funds, institutional investors | Find new investment opportunities with low interest rates Balance social contribution and financial returns Mitigate investment risks of their portfolio Low direct correlation w/ general investment deals Some SIBs have low investment risks thanks to debt guarantee of gov't and foundations |
| Service provider | Service delivery | NPOs/NGOs, companies, int'l organizations, development organizations, impact investors, community org. | Secure multi-year and large-scale budgets for social innovations High possibility of receiving future orders as the service delivery w/ strict quality standards is required |
| Evaluator | Outcome evaluation and reporting | Research institutes, academia and professional firms | Expand business in SIB themes with cumulative capabilities |

Source: Ichiro Tunkamoto& Kaneko Ikuyo (Eds.), Social Innovation through Impact Investments: Opportunities and Challenges of Social Impact Bonds IMPACT BONDS IN DEVELOPING COUNTRIES: Early Learnings from the Field"

• Figure 7: SIB stakeholders' roles and incentives

The benefits available to the government for their participation in a SIB is of utmost importance to the architecture of SIB. As indicated in Figure 8, thanks to the characteristics of pay-for-success model, higher outcomes can be achieved at a lower cost with a stronger governance being established over the service providers through the involvement of external stakeholders. Service providers can have a certain level of freedom to create and put their innovative ideas into action for project delivery as the contract is performance/output-based without appointing any particular programs design specifications. In addition, the upfront capital mobilized from private investors allows a large-scale expansion of services and preventive activities. The financial risk transfer is also an attractive factor to attract a wider range of service providers.

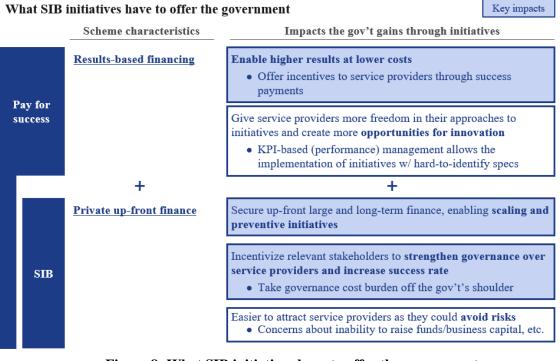


Figure 8: What SIB initiatives have to offer the government

2-1-4 The position of SIB within ESG investing and impact investing

As shown in figure 9 below, ESG/impact investments comprise four major goals listed in the order of social returns generated: creating impactful solutions, seeking new ESG-based market opportunities, reducing ESG-related risk factors, and pursuing competitive returns. Different types of investment will cover different goals among these four. For example, in sustainable investing, ESG considerations are actively integrated throughout investment processes where investors will prioritize competitive returns without seeking new ESG-based market opportunities and ESG-related risk mitigation efforts. Regarding the position of SIB within ESG investing and impact investing, SIB is focused on generating high social impact rather than pursuing competitive financial returns. On the other hand, although SIBs have higher financial returns than ODA, their financial returns are less secure than those of green bonds and sustainability-linked loans.

| I USHION UI SI | | | • | | mpact investing | g | |
|------------------------|---------------------------|---|---|---|---|--|---|
| | Conventional investing | Responsible investing | Sustainable investing | Level 1 | Level 2 | Level 3 | Philanthropy |
| Financial returns | High | High | High | High~Med | Med~Low | Low | - |
| Social impact | - | - | | Med~Low | Med~Low | Med~High | High |
| ESG risk | Negligible | Moderate | Significant | Significant | Significant | Significant | Significant |
| | | Reduce high- ESG-risk initiatives | Proactively introduce ESG initiatives | Aim for environmental & social impact while ensuring proper risk level/returns | Aim for environmental & social impact with low financial returns | Financial returns are below average. Focus on environmental & social impact | Only focus on environmental & social impact |
| Specific approaches | | Negative screening | Positive screening, theme-based investment | Green bonds Sustainability- linked bonds/ loans, etc. | SIB and others | ODA and others | ODA (interest- free), donations, grants, etc. |
| | | | | Focus | sing on (measurabl | e) high-impact solut | tions |
| Goals | | | Pursuing E | SG opportunities | | | |
| | | Mitigatin | g ESG risks | | | | |
| | Deliverin | g competitive returi | ıs | | | | |

Position of SIB within ESG investment and impact investment

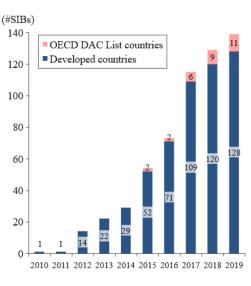
• Figure 9: Position of SIB within ESG investment and impact investment

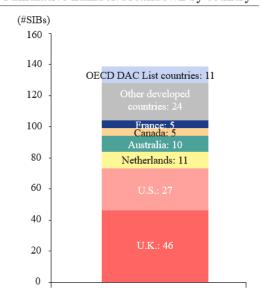
2-2 The worldwide presence of SIB

2-2-1 Overview of SIBs across the globe

Worldwide presence of SIBs

Global cumulative* number of SIBs





Cumulative number/breakdown by country

Total SIBs already launched by February 2021
 Source: Social Finance SIB Database

Figure 10: Worldwide presence of SIBs

The number of SIBs launched across the globe is gradually increasing every year since the world's first SIB program was ever established in 2010 to prevent re-offending in Peterborough prison in the U.K. As of 2019, the world records more than 139 SIBs.

The breakdown chart shows that the majority of SIBs took place in the U.S. and SIB origin country the U.K., followed by the Netherlands and Australia totaling 128 SIBs formed in developed countries, mostly in Europe and the U.S., while only 11 are situated in OECD DAC List countries. This gap arises because governments of developed nations have an advanced level of administrative capacity and functions than less developed nations which is essential for the success of SIB implementation.

In terms of SIB themes, as shown in the lefthand side of Figure 11 prevailing topics include social welfare (typically employment support), education, and healthcare that require huge public expenditures due to large target population. The scale of SIBs needs to be large enough to incentivize private-sector investors, which will therefore necessitate SIBs having a substantial potential for spending cuts for governments participating in these programs as they need to secure a large target population and sufficient funds to repay investors for the achievement of social outcomes.

Major SIB themes



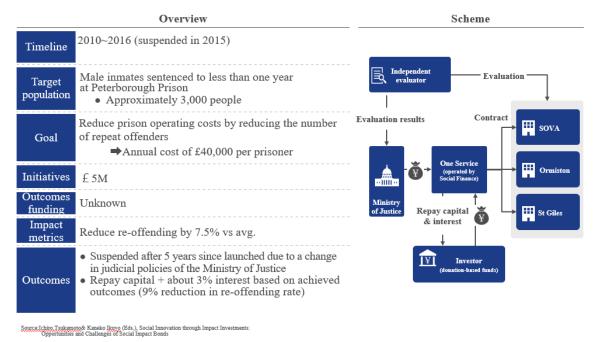
Examples of SIB themes

| | | | Examples of SID themes | |
|---|-----------|--------------|--|--------------------------|
| Crime | | Year | Description | Topic |
| Crime prevention Youth care | | 2010 | Re-offending prevention in Peterborough | Crime |
| 140 Employment Education/ | | 2012 | NEET employment support in West Midlands | Employment |
| Homeless Healthcare | 1112 | 20122 | Reduction of youth care in Essex | Youth care |
| | U.K. | 015 | Reduction of homelessness in Birmingham | Homeless |
| 120 - Poverty/ environment | | 2016 2017 | Mental health improvement in Haringey Reduction of HIV patients in London | Healthcare Healthcare |
| | | 2017 | Reduction of HIV patients in London | Healthcare |
| 100 - | | 2013 | Re-offending prevention in New York | Crime |
| 100 | | 2013 | Child edu, support for low-income families in Utah | Education |
| | | 2014 | Reduction of homelessness in Massachusetts | Homeless |
| 80 - | U.S. | 2016 | Water pollution improvement in Washington | Other |
| | | 2017 | Immigrant employment support in Massachusetts | Employment |
| | | 2018 | Reduction of youth care in Jefferson | Youth care |
| 60 - | | 2013 | The large state of the Detter large | E1 |
| | Nether- | 2013 | Employment support in Rotterdam Re-offending prevention in Amsterdam | Employment Crime |
| | lands | 2010 | Cancer patients returning to work in Netherlands | Healthcare |
| 40 - | | | | |
| | | 2013 | Reduction of housing care for young ppl in NSW | Youth care |
| | Australia | 2015 | Reduction of homelessness in Adelaide | Homeless |
| 20 - | | 2016 | Re-offending prevention in NSW | Crime |
| | | | | |
| | | 2014 | Canada: Single mom support in Saskatoon | Youth care |
| 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 | Other | 2015 | Portugal: PC education for young people in Lisbon | Education Healthcare |
| | | 2017 | Japan: Increase of cancer screening rate in Hachioji | neaithcare |
| Total SIBs already launched by February 2021 Source: Social Finance SIB Database | | | | |

Figure 11: Major SIB themes •

2-2-2 Historical precedents of SIB in the U.S. and the U.K.

The world's first SIB in U.K.- Re-offending prevention in Peterborough Prison



• Figure 12: The world's first SIB in the U.K. - Re-offending prevention in Peterborough Prison

The Figure12 illustrates the world's first SIB, a project aimed at reducing reconvictions to achieve prisons cost savings in Peterborough prison (the U.K.) launched from 2010 to 2015. In this scheme, the Ministry of Justice was the outcome payer and One Service (operated by the UK-based Social Finance) was the intermediary that contracted with 3 service providers to undertake re-offending prevention education programs in prisons. Eventually, the SIB was suspended after 5 years since its establishment due to a change in judicial policies of the Ministry of Justice. In 2014, the Ministry of Justice announced their policies to expand a reintegration program for offenders after serving their

prison sentences on a national scale, making it impossible to measure this SIB's outcomes with accuracy given the impacts of this new program rollout.

2-2-3 Key stakeholders in the U.S. and the

U.K. and their initiatives

•

The characteristics of the U.S. and the U.K. stakeholders' initiatives are summarized as below.

Characteristics of stakeholders in the U.S. and U.K. SIBs

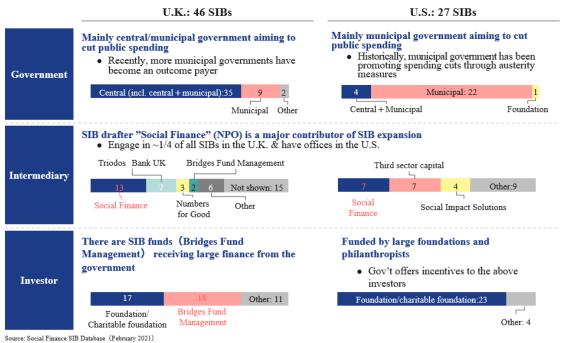


Figure 13: Characteristics of stakeholders in the U.S. and U.K. SIBs

SIBs in the U.S. and the U.K. have the three main characteristics: the first characteristic is the participation of the government as an outcome payer. In the U.K., the central government often serves as the outcome payer, while in the U.S. where decentralization is taking place, in many cases it is municipal governments who will take this role. This is a distinctive characteristic of SIBs in these two countries due to differences in their administrative structures. In OECD DAC List countries, on the other hand, outcome payers are usually non-governmental players.

The second characteristic is the involvement of SIB designer Social Finance (an NPO) as

Profile of intermediary Social Finance

an intermediary in both the U.S. and the U.K. As a participant of 1/4 of all SIBs in the U.K. with offices located in the U.S., Social Finance is a major contributor to the expansion of SIBs worldwide. There is few organizations specializing in providing SIB intermediary function or having this role as their core business. The most prominent representatives of this stakeholder group include Social Finance as mentioned above and Instiglio who has active presence in OECD DAC List countries. In many SIBs, traditional development consulting firms such as Palladium also function in this role. The profile of Social Finance is shown in the following figure.

| | Overview | | Examples of projects |
|---------|--|-----------------------|---|
| Est. | 2007 | | offending reduction (Peterborough, 2010) - World's first SIB |
| Туре | NPO | • You | th care (Essex, 2012) |
| listory | Formerly a commission that <u>looked into</u> the distribution of domant account deposits for the benefit of youth and social projects and has developed the SIB scheme As a result, U.K. government's investment institution Big Society Capital was launched in 2012 and also funded SIBs Co-founded by commission chairman, Sir Ronald Cohen, and other members | 201 • Hor • Emp | ployment support (Greater Manchester, 2/2015) nelessness (Birmingham, 2015) ployment promotion and re-offending reduction w York, 2013) Composition of intermediaries Triodos Bank UK Bridges Fund Managemen |
| Goal | Partner with the government, the social sector, and the financial sector to discover better ways to address social issues | U.K. | 13 7 3 2 6 Not shown: 1 Social Finance Numbers for Good Other |
| ocation | Have offices in the U.K., U.S., Israel, India, and the Netherlands | | Third sector capital |
| | Also work extensively as a technical advisor in developing countries | U.S. | 7 4 Other: 9 Social finance Social Impact Solutions |

Source: Social Finance SIB Database, Social Finance website, "The Landscape of Social Investment in the U.K., Alex Nicholls, Oxford University", Third sector's "New firm to Prepare Ground for Social Investment Bank". Social Investment Task Force's "Social Investment Ten Years On"

• Figure 14: Profile of intermediary Social Finance

The third characteristic is that most SIB investors in the U.S. are private foundations and philanthropists, owing to the fact that there is already a philanthropic investment environment in place, while in the U.K., SIBfocused funds fueled by the government are dominant. In particular, the Bridges Fund Management (BFM), an asset management company established in 2002, specializes in impact investing and has assets of about \$1.37 billion. Although BFM's investment portfolio is focused on large social impact businesses and real estates, it also funds various SIBs of employment child welfare, support, homelessness, and chronic diseases, contributing greatly to the expansion of SIBs in the international community.

Profile of investor Bridges Fund Management Bridges Fund Management profile

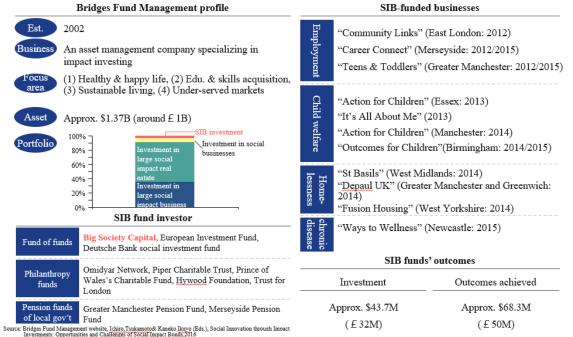


Figure 15: Profile of investor Bridges Fund Management

2-3 SIB trends in Japan

2-3-1 Overview of SIBs in Japan

In Japan, SIBs began to emerge since around 2015.

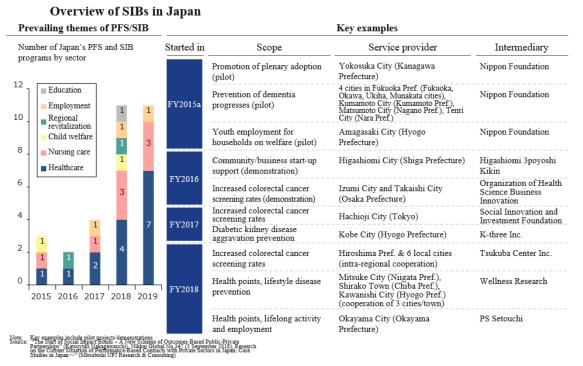


Figure 16: Overview of SIBs in Japan

One of the characteristics of SIBs launched in Japan is that there is a large number of programs in healthcare and nursing care systems. The country's aging population is believed to be a contributing factor in this situation. As a result, outcome payments are often done by municipal governments alone or through inter-city collaborations since healthcare and nursing care initiatives are implemented and managed by municipal governments where SIBs take place. The country's relevant ministries and agencies are actively providing support for the establishment of SIB projects in the said sectors.

Support the establishment of SIBs in healthcare sector to promote the creation of industries that help increase people's health and life expectancy • Launched a demonstration project with Kumon in 2015 Ministry of • Supported the launch of SIBs in Hachioji City and Kobe City in FY2016 Economy, Supported the launch of SIBs in Hiroshima Prefecture in FY2018 Trade & Aim to expand similar initiatives to other regions and establish SIBs in areas with Industry outstanding issues Created a know-how collection in 2017 Promote SIB projects as one of <u>"Environmental improvement projects in insurance</u> Ministry and welfare sectors" of • The proposed budget for FY2018 reached ¥111 million Health, Labor & Welfare 6 SIB projects for Specified Issues and 4 for Regional Issues in FY2018, incl. FY2017 Other ministries and agencies also started looking at SIB adoption • Ministry of Internal Affairs and Communications: Promotion of open data Others • Ministry of Justice: Recidivism prevention • Ministry of Land, Infrastructure, Transport and Tourism: Urban development

Japanese ministries and government agencies' supportive actions for SIBs

Source: Official websites of ministries and agencies, DI Interview

• Figure 17: Japanese ministries and government agencies' supportive actions for

SIBs

The Ministry of Economy, Trade and Industry (METI) is assisting the formation of SIBs to promote the creation of industries for life extension of communities. The following figure provides an overview of SIB projects carried out by METI as part of their said efforts.

Summary of SIBs implemented by METI

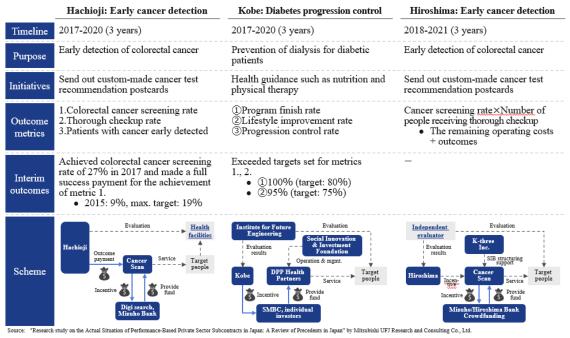


Figure 18: Summary of SIBs implemented by METI

2-3-2 Initiatives of Dream Incubator Inc.

As previously mentioned, DI is currently accelerating its efforts to expand the SIB ecosystem in Japan. DI's initiatives can be broadly grouped into two categories: the establishment of SIB funds and the management of SIB projects. For the former, DI launched Japan's first-time and Asia's biggest SIB fund in July 2021. Established with the purpose of securing private capital for funding a hypothetical number of various SIB projects, this will be the pool of funds for SIB private investors to invest in (e.g., Nippon Life Insurance Company, Development Bank of Japan Inc.) and gains SIB financial incentives as investment returns. For the latter, DI started a long-term care prevention SIB project in Toyota City in July 2021.

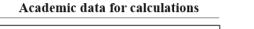


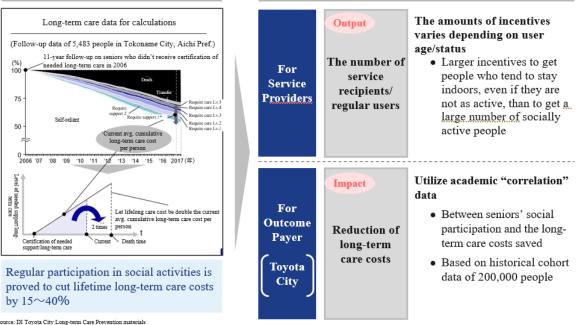
Overview of DI's SIB initiatives



Toyota City long-term care prevention SIB outdoes other SIBs in 2 points. The first point is the use of academic data for evaluation. Historically, it has been difficult to establish SIBs in the field of long-term care due to the obscure causal relationship between the implementation results of nursing care prevention measures (output), the reduction in the level of nursing care required by each individual (outcome), and government spending savings (impact). However, DI has made it possible to evaluate the outcomes and impacts of this SIB project by collaborating with a university with various researches conducted to clarify the above causal relationship.

KPIs set for Toyota City long-term care prevention SIB



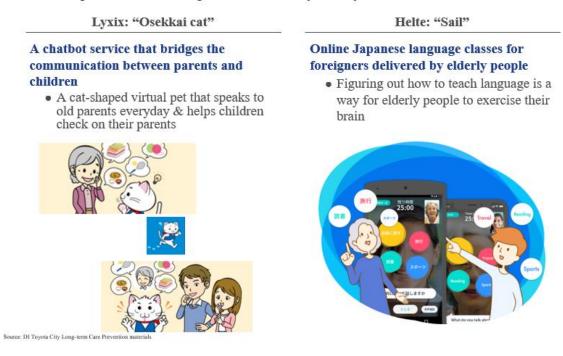


Outcome metrics of SIB in Toyota City

Figure 20: KPIs set for Toyota City long-term care prevention SIB

The second point is the engagement of innovative startups as service providers. Historically, NPOs and NGOs with their usual traditional solutions have been appointed as service providers in many SIB projects. The Toyota City's long-term care prevention SIB has managed to involve many startups that adopt digital technologies in the services they provide.

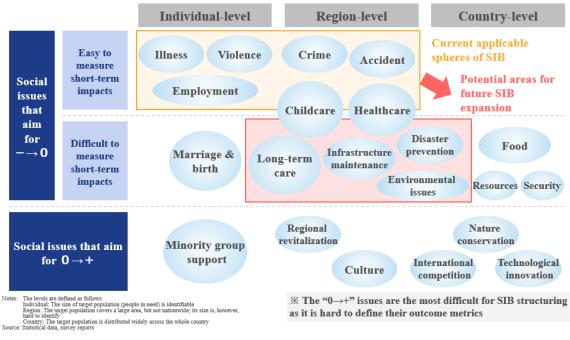
Examples of some service providers in the Toyota City SIB



• Figure 21: Examples of some service providers in the Toyota City SIB

2-3-3 Prospects of future SIB implementations in Japan

Currently, the SIB model is mainly applied to social issues in which it can mitigate negative impacts on individuals and local communities (illness, violence, employment, crime, accidents, child welfare, and healthcare). In the future, the SIB scheme is deemed potential to apply to issues with outcomes that are difficult to assess in the short term in a target region or country (nursing care, infrastructure maintenance, disaster prevention, and environmental issues). Moreover, issues with new positive social impacts will be the most challenging for SIB design as their outcome metrics are substantially difficult to define.

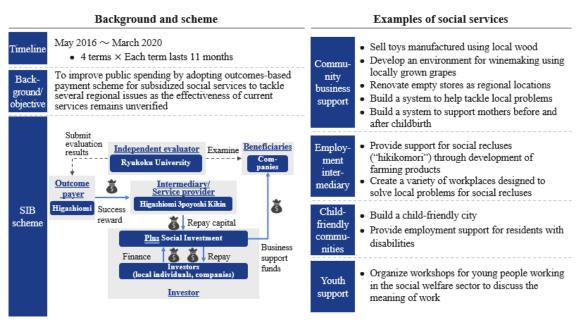


Overall picture of social issues and DI's view concerning future SIB expansion

Figure 22: Overall picture of social issues and DI's view of future SIB expansions

In Japan, besides the aforementioned nursing care prevention program launched by DI, there are also a number of initiatives regarding new SIB themes that have not been covered before. As the efficiency of government subsidized programs remained unverified in Higashiomi City (Shiga Prefecture, Japan), the city government has established an SIB transforming subsidized development projects for resolving several regional problems into outcomes-based schemes. Multiple programs have been rolled out to support the revitalization of local communities. An overview of this SIB in Higashiomi City is shown in the following figure.

Overview of SIB in Higashiomi City



Source: Higashiomi City SIB project outline

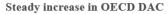
• Figure 23: Overview of SIB in Higashiomi City

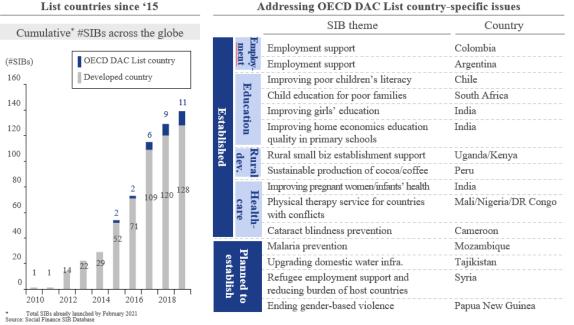
2-4 SIB trends in OECD DAC List countries

2-4-1 Overview of SIBs in OECD DAC List countries

The number of SIBs launched in OECD DAC List countries is gradually increasing since 2015. In 2013, Social Finance published a report on the adoption of SIB scheme for the development of OECD DAC List countries after a series of SIB rollouts in developed countries since 2011. The report paves the way for the development of SIBs and DIBs in OECD DAC List countries. SIB is being employed as one of the approaches to addressing OECD DAC List country-specific social issues. Since the first SIB was established in Peru, there emerges a trend to develop SIBs mainly in 3 regions, namely LAC, India, and Africa. DFIs and intermediaries in these countries have been working on regional expansion of SIBs in certain targeted areas. Their diligent and tireless activities have, however, widened regional disparities. Further details will be given in later sections.

Overview of SIBs in OECD DAC List Countries

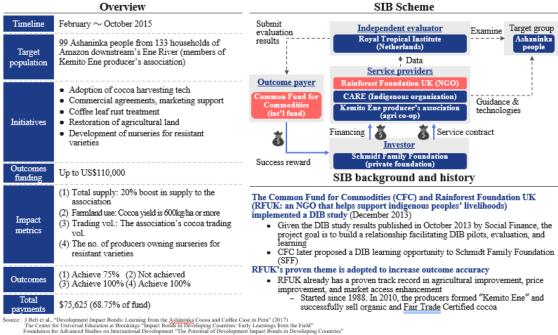






The first SIB project launched in LAC, which was also the first SIB in an OECD DAC List country, was aimed to support indigenous peoples in Peru with cocoa and coffee production. Unlike SIBs launched in developed countries thus far, their objective is not to cut public spending, but to improve livelihoods of indigenous peoples with the outcome payer being the Common Fund for Commodities (CFC) who seeks to apply the DIB model mentioned in a Social Finance report to the region.

The SIB for a sustainable cocoa and coffee production by indigenous communities of Peru

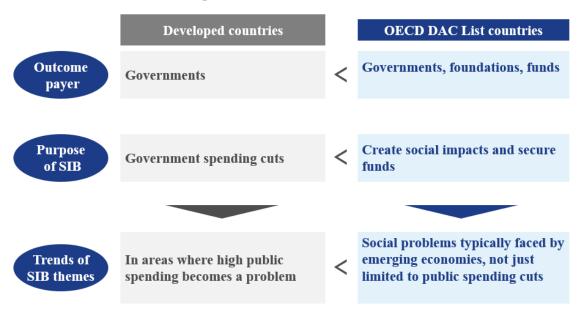


• Figure 25: The SIB for a sustainable cocoa and coffee production by indigenous

communities of Peru

The following figure shows major characteristics of SIBs in OECD DAC List countries. The outcome payer is usually private philanthropists or foundations alongside the government. SIB schemes in OECD DAC List countries without the government participation are often referred to as DIBs (development impact bonds). Their purpose of launching SIBs is totally different. In OECD DAC List countries, the purpose is often to create social impact and secure funds, whereas in developed countries it is mainly to reduce government spending. This difference in stakeholder engagement and SIB objectives also clearly shows up in commonly found SIB themes. Trending SIB themes in OECD DAC List countries are not only limited to public spending cuts, but also social issues encountered along the path toward economic development, while in developed countries they relate to social issues that require large public spending.

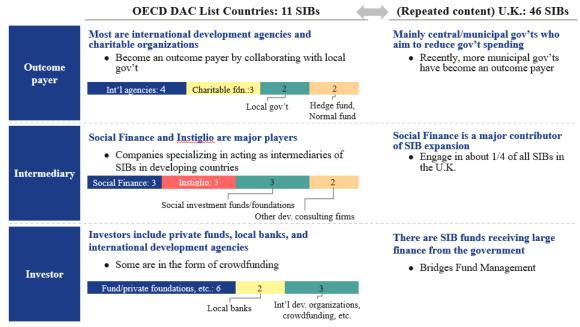
The differences between developed and OECD DAC List Countries in SIB trend



• Figure 26: The differences between developed and OECD DAC List countries in SIB trends

SIBs in OECD DAC List countries are also vastly different from those of developed economies in terms of stakeholders. Besides the intermediary Social Finance mentioned above, there are also organizations like Colombia's Instiglio who specializes in acting as a SIB intermediary in OECD DAC List countries. There is also a wide range of investors including philanthropic funds and private foundations as well as local banks, international development agencies, and crowdfunding investors.

Characteristics of stakeholders in OECD DAC List Countries



Source: "What is social impact bond?", The Center for Universal Education at Brookings "IMPACT BONDS IN DEVELOPING COUNTRIES: Early Learnings from the Field", GLAB website, Social Finance SIB Database, Social finance website

• Figure 27: Characteristics of stakeholders in the U.K. and OECD DAC List

countries

2-4-2 SIB initiatives of DFIs

International development financial institutions ("DFIs") are often involved in SIBs in OECD DAC List countries. They usually participate in SIBs as outcome payers or investors.

Major stakeholders of SIB launched in OECD DAC List Countries

| м | ajor stakeł | olders of SIB lau | unched in OECD DAC | List Countries | Red text: International development agencies |
|--------|--|--|---|---|--|
| | | Theme | | Key stakeholder | development agencies |
| | | | Outcome payer | Intermediary | Investor |
| | Colombia | Employment support | IDB-Lab/SECO (Swiss) Government of Colombia | Instiglio, Fundación Corona (NGO) | Fundación Corona, Fundación Mario Santo Domingo, Fundación <u>Bolivar</u> Davivienda |
| LAC | Peru | Sustainable production of cocoa and coffee | Common Fund for Commodities (CFC) | - | Schmidt Family Foundation (private foundation in California) |
| | Chile Literacy improvement ⁵ charitable foundations | | Fundación San Carlos de Maipo (foundation) and Social Finance provide cooperation support | 5 investors gathered through Doble Impacto (crowdfunding) | |
| | | Women's education | The Children's Investment Fund (hedge fund) | Instiglio | UBS Optimus Foundation |
| | India | Pregnant women/newborns' health improvement | USAID, Merck for Mothers, Rajasthan state gov't (year 4-5 onwards) | Palladium (consulting firm) | UBS Optimus Foundation Palladium, PSI, HLFPPT |
| | | Improvement of primary school curriculum quality | Michael and Susan Dell Foundation (private foundation) and others | British Asian Trust (foundation) | UBS Optimus Foundation |
| | Cameroon | Prevention of blindness due to cataracts | Conrad N. Hilton Foundation (private foundation) and others | D. Capital Partners (consulting firm) | U.S. International Development Finance Corporation • Formerly called OPIC |
| Aff | Kenya, Uganda | Rural small business establishment support | USAID, the Department for International Development, anonymous donors | Global Development Incubator + Instiglio design and provide cooperation support | Delta Fund and anonymous investors |
| Africa | Mali, Nigeria, DR Congo | Provision of physical therapy services in countries w/ ongoing conflicts | "la Caixa" Foundation, Belgian Gov't, Swizs Gov't, U.K. Gov't, Italian Gov't | Kois Invest (social investment fund) | Private investors coordinated by Lombard Odier & Co (private bank) |
| | Republic of South Africa | Developmental education for children in low- income families | Western Cape Social Development Department 50% ApexHi charitable trust 50% | SIB establishment: Volta Capital Biz management: mothers2mothers | Standard Bank Tutuwa Community Foundation, LGT Venture Philanthropy |

Figure 28: Major stakeholders of SIBs launched in OECD DAC List countries ٠

IDB Lab, USAID, and DFID are three distinguished examples of DFIs when it comes to SIB initiatives.

Particularly, SIBs taken place in OECD DAC List countries are often limited in budget for social outcome payments which shall be made by municipal governments or private foundations alone as they seem to have difficulties securing funds from other investors. This is why DFIs with a large fund size appear to be an attractive stakeholder for SIBs. The Village Enterprise DIB in Kenya and Uganda has considered developing a SIB with the intermediary Instiglio taking the leading role but it was unable to engage private foundations as outcome payers. They later approached DFID and USAID for this function. The Cameroon Cataract Bond has selected OPIC as its investor from other private-sector candidates. With great interest, DFI considers SIB as a promising scheme for public-private partnership scheme to maximize development impact. IDB Lab has made a significant contribution to the establishment of several SIB programs in LAC with the ultimate goal of building a SIB ecosystem in the region. And while USAID is engaged in Utkrisht Impact Bond to explore new financing schemes for development projects, DFID takes part in India's educationrelated SIBs for technical assistance and is rolling out several research projects on SIBs and DIBs in order to achieve education and other sustainable development goals mainly in South Asia.

The following section shows some main examples of projects the DFIs have engaged with.

(1) Engagement as an outcome payer (examples)

Most notably, USAID set up a big SIB with a \$8 million outcomes fund in India to improve the health of 300,000 mothers and newborns across Rajasthan. This SIB aims to work with private health facilities across the region to improve and maintain service quality and processes of maternal care with the tripartite collaboration among the local government of Rajasthan, USAID, and the Merck for Mothers as outcome payers. The 3 organizations joined hands to study the applicability of outcomes-based schemes and develop this SIB program for pregnant and

parturient women. While Palladium and the government of Rajasthan have been working to expand their maternal care efforts regionally, Palladium - an actor with previous experience in SIB projects, has launched outcomes-based fundraising initiatives together with HLFPPT in other states. These initiatives were funded by the Department of International Development of the U.K. In addition, with HLFPPT's support, Merck for Mothers has launched several maternal care initiatives in India with training and quality assurance systems provided to 76 private facilities in Rajasthan over 3 years. A similar pay-for-performance scheme has also been considered by USAID and PSI, a non-profit organization that offers development assistance to OECD DAC List countries.

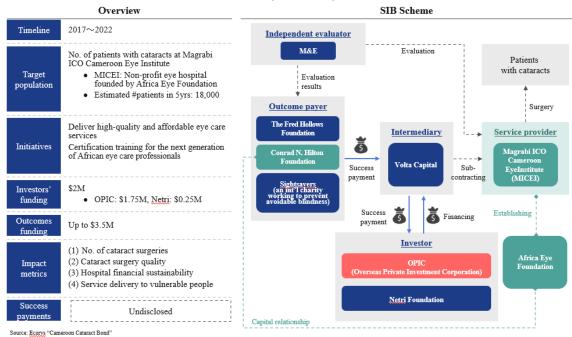
USAID × Outcome payer: Pregnant women and newborns' health SIB (India)

| | Overview | SIB Scheme |
|--|---|--|
| Timeline | March 2017~December 2020 | Independent evaluator Small health |
| Target population | Mothers and newborns in Rajasthan • Health facilities: 360~444 • At least 300,000 persons | Evaluation facilities Evaluation esults Support |
| Initiatives | Work w/ private health facilities across Rajasthan to improve/maintain service quality/processes for maternal care | Outcome payer Intermediary USAID (U.S. Agency for Int'l Dev.) Same for the second |
| Investors' funding | \$3.5M | Merck for Mothers (foundation) Merck for Population Financing Population Services International |
| Outcomes funding | \$8M Funded by USAID, Merck for Mothers (maternal & child support foundation), local gov't | Rajasthan State gov't UBS Optimus Foundation (foundation) |
| Impact metrics • Hindustan Latex F Source: "Design Grant Case | Quality standards of services offered at health facilities Family Planning Promotion Trust Study The United Index Bond" | |

• Figure 29: USAID × Outcome payer: Pregnant women and newborns' health SIB (India)

(2) Engagement as an investor (examples) OPIC (now the United States International Development Finance Corporation) participated in a DIB for blindness prevention through cataract treatments in Cameroon, with the Conrad N. Hilton Foundation being the outcome payer with a 100% principal guarantee offered to the investors. As part of the initiative, training programs are offered to develop a human resource of highly skilled eye care professionals. The noteworthy point is that OPIC has provided \$1.75 million out of the \$2 million capital for this DIB. With a strong interest in DIBs, the Fred Hollows Foundation, as an outcome payer, has prepared a draft SIB proposal with an initial focus on eye care for blindness prevention. The Conrad N. Hilton Foundation, an investor of the Africa Eye Foundation in the sub-Saharan Africa, joined the SIB as an outcome payer, Cameroon was therefore selected as the target region of the program. After several negotiations with Deutsche Bank and other potential investors, OPIC has been selected as the SIB investor.

OPIC × Investors: Cameroon Cataract Bond (Cameroon)



• Figure 30: OPIC × Investors: Cameroon Cataract Bond (CAMEROON)

3. SIB-related study results in the focus countries

3-1 SIB situation in LAC

•

Being a pioneer of the early adoption of SIBs among emerging and developing nations, LAC countries have launched a more significant number of SIB projects across the region compared to other groups of OECD DAC List countries. Most SIBs in LAC are created to address social issues similar to those in OECD DAC List countries. There are three main characteristics of SIBs in LAC, namely 1) A relatively large number of local government participants as in youth employment SIBs in Buenos Aires, Argentina, employment support SIBs in Colombia, etc., 2) Major contribution of IDB Lab – an innovation laboratory of the Inter-American Development Bank Group - to the establishment of SIBs in the region such as a series of SIBs established in Colombia for employment support, etc., and 3) Presence of local intermediaries such as Instiglio.

| | | Summary | | | | s | takeholders | | |
|------------|---|---|--|--|--|---|--|--|--|
| Country | Area | Theme | Timeline | Status | a. Outcome payer | b. Intermediary | c. Investor | d. Service provider | Others |
| Colombia | Unemployment | Youth employment | '17-'18 '19- UR | Finished Ongoing TBD | Central govt <mark>IDB Lab</mark> Cali City <mark>IDB Lab</mark> Outcomes fund | Fundación Corona/Inverser Fundación Corona <mark>Instiglio</mark> TBD | Fundación Corona Details unknown Details unknown | Universities/NGO Details unknown Details unknown | Partner w/ IDB Lab Partner w/ IDB Lab Partner w/ IDB Lab |
| | Unemployment | Youth employment | '17-'18 | Ongoing | Local gov't | Acrux partners/SF* | Conglomerates/ local | NGO | Partner w/ IDB Lab |
| Argentina | Education | Education | UR | UR. | TBD | TED | banks TBD | TBD | Details unknown |
| Peru | Primary industry | Sustainable agri Sustainable agri | '15 UR | Finished UR | CFC** TBD | Nil Tentatively <mark>Instiglio</mark> | Private foundations CFC/investment fund | NGO NGO | DIB to execute Tentatively partner w/ IDB Lab |
| | Violence/crime | Repeat offender prevention | '18 review | UR | TBD | TBD | TBD | TBD | Partner w/ IDB Lab |
| Chile | Child welfare Unemployment | Child neglect Young women employment | '18 review '18 review | UR UR | TBD TBD | TBD TBD | TBD TBD | TBD TBD | Partner w/ IDB Lab Partner w/ IDB Lab |
| | Education | Language skills | 19-"22 | Ongoing | Foundation/fund | NGO/SF* | Crowdfunding | Education-related NPO | DIB to execute |
| Brazil | Violence/crime Modern disease Education Unemployment Unemployment | Theme undetermined Chronic disease measures Secondary education Youth employment Unemployed technical worker support | '14 review '18 review '18 review '19 review | Suspended Suspended Suspended Suspended | Unknown Ceará Insurance Agency São Paulo gov't Federal gov't | - Research Institute | Unknown Unknown IDB-Lab Unknown Unknown | Unknown Unknown Unknown Unknown Unknown | Details unknown Gov't-led project Partner w/ IDB Lat Cancelled due to COVID-19 |
| | Unemployment | Employment support for the disadvantaged | '20 review '20 review | UR UR | Local gov"t Local gov"t | SITAWI SITAWI | Unknown | Unknown | SITAWI competitio |
| Mexico | Modern disease Unemployment Education Unemployment | Diabetes control Women's support Student retention Employment | '14review '15review Unknown '19review | Suspended Suspended Unknown UR | IMSS*** Jalisco state gov't Unknown TBD | Instiglio Instiglio/SF* Unknown Unknown | - IDB-Lab Unknown Unknown | Clinics Foundations Unknown Unknown | Partner w/ US-AID Partner w/ <mark>IDB Lab</mark> Details unknown Details unknown |
| Costa Rica | Infrastructure development | Saving water at schools | Unknown | Suspended | TBD | Tentatively Instiglio | Unknown | Unknown | Details unknown |
| Ecuador | Primary industry | Increased bamboo procurement | Unknown | UR | CFC** | Unknown | Charity organizations | International organizations | Details unknown |

Figure 31: Overview of SIBs/DIBs and stakeholders in LAC

3-2 LAC SIB case studies

Among the SIB case studies in LAC, particular attention should be paid to employment SIBs that proceed with the engagement of local authorities and government agencies in Colombia and Argentina.

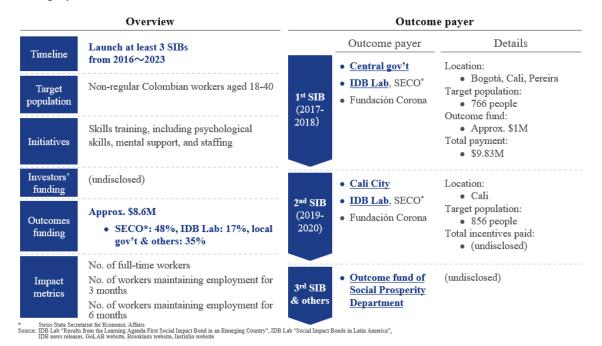
The Colombian central and local governments have led several SIB projects supported by IDB Lab. These programs have three significant outcomes:

(a) With the involvement of the central government, the first SIB project enables an

accumulation of employment SIB-related know-how within the region and the SIB effect appeals to other local governments.

(b) The central government clears the hurdle of the government's inability to secure a budget by establishing an outcomes fund within the Social Prosperity Department.

(c) This is a rare case of continuous establishments of SIBs in the world and is also a remarkable example of a sustainable SIB ecosystem. The establishment of an outcomes fund as in (b) is a particularly important point in this example. Further details on this point will be given in later sections.



Employment SIBs in Colombia

Figure 32: Employment SIBs in Colombia

For the employment SIB in Argentina, the city of Buenos Aires was the outcome payer in charge of structuring and launching the said SIB. As the SIB's leading actor, the new government of Buenos Aires city expected to increase its public approval ratings through innovative policies such as SIBs. IDB Lab's role in this SIB is principal guarantor.

Youth employment SIB in Buenos Aires

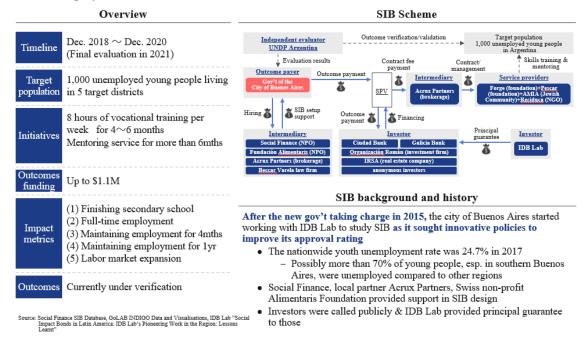


Figure 33: Youth employment SIBs in Buenos Aires

3-3 Key stakeholders and their initiatives 3-3-1 Activities of IDB Lab in LAC

As mentioned above, IDB Lab plays a major

role in the formation of a SIB ecosystem in LAC. See the following diagram for its roles within SIBs in LAC.

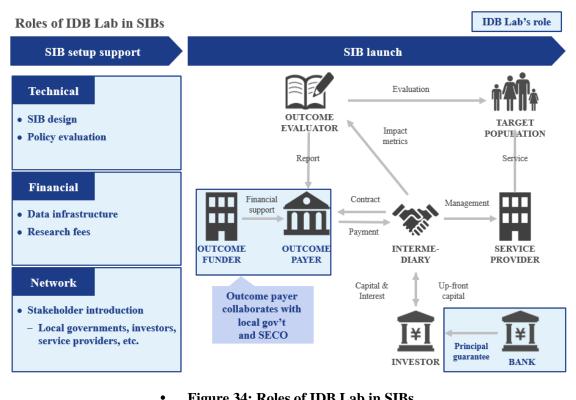


Figure 34: Roles of IDB Lab in SIBs

To support the establishment of SIBs, IDB Lab provides regional governments with technological, financial, and network-related support. Specifically, on the technical front, they work with intermediaries who have extensive knowledge of SIBs such as Social Finance and Instiglio to design SIBs and evaluate past policies. On the financial aspect, they support to build a data infrastructure necessary to measure SIB outcomes and finance initial research costs. For networking purposes, they also proactively hold several seminars to connect the local governments, private foundations, and service providers.

As a SIB participant, IDB Lab has two major roles, including an outcome payer or a principal guarantor of investors. Notably, IDB Lab has helped clear single-year budget hurdles and address insufficient public budget issues by participating in SIB schemes as an outcome payer with local and foreign governments.

3-3-2 Activities of SIB intermediaries and other project supporting organizations

Intermediaries play an essential part in the implementation of SIBs. Given the global trends in SIB implementation, know-how of SIB scheme design and operation tends to accumulate with intermediaries, and this tendency is even more evident for the special environment in LAC where people speak the same language. Like Social Finance playing the central role in the establishment of SIBs in developed countries, Instiglio serves a similar role in LAC market. Instiglio is a for-profit corporation whose main activity is to act as an intermediary for SIBs in OECD DAC List countries. Headquartered in Colombia, Instiglio primarily focuses on expanding SIBs in LAC countries. They are a pioneer in the field of impact bonds that has involved in about half of the 20 SIBs projects currently launched in OECD DAC List countries.

Instiglio's initiatives as SIB intermediary



• Figure 35: Instiglio's initiatives as SIB intermediary

3-4 Current situation of SIB-related legislative systems in LAC

The development of legal systems is a crucial issue for the structuring of SIBs. Some countries have little legal ground for SIB implementation, and in some cases, it is even impossible to perform one. And, even though it is possible to set up SIBs, there might be significant limitations concerning program schemes and according participants due to the fact that it is practically impossible to have an intermediary involved as the payment of outcomes cannot be outsourced and that investment returns cannot be gained from philanthropic investments.

| | | Peru | Colombia | Brazil | Other LAC Countries |
|---------------------------------------|---|--|----------|--|--|
| | gulations governing IB establishment | _ | _ | SIB can be structured, but the legal basis for payment is vague • Gov't & civil society org. cannot distribute profits (Law No.13,205/2015) | Chile: In principle, performance-based payments cannot be made by the government |
| Legal hurdles of SIB establishment | Cannot engage intermediaries due to the prohibition of outcome-based subcontracting | 40% of original contractor's work is the upper limit in case of subcontracting • Law No.30225 | - | Not allow subcontracting with success payment • Federal Law 8.666/94 | |
| lles of SIB shment | Local investors are not allowed to receive returns/ get fewer benefits | _ | _ | Not allow to receive returns for charitable investments • Income tax deduction of about 1-4% | Argentina: Charitable investors cannot receive investment returns |

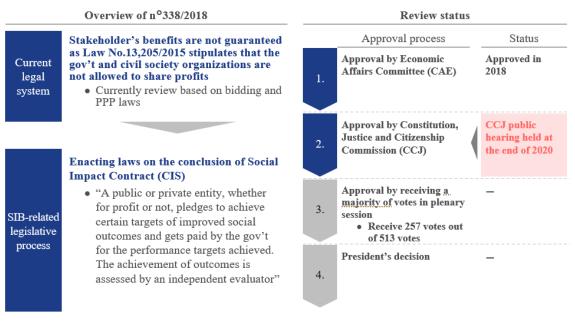
Current regulations and respective situation in each target country

Source: IDB Lab, "FAQ - Social Impact Bonds in Latin America and new MIF pilot program" "Social Impact Bonds in Latin America: IDB Lab's Pioneering Work in the Region: Lessons Learn": least system of each country

• Figure 36: Current regulations and respective situation in each target country

Among the countries covered in this research study, Brazil has a huge regulatory hurdle as there is no legal basis in place for establishing SIBs in the country. The government has drafted CIS Act towards the enactment of a SIB-related legal system. The CIS Act aims to address vulnerabilities of SIB's legal foundation regarding the inability of the government and civil society organizations to share profits and guarantees benefits of service providers and investors through payfor-success schemes/SIBs. Despite the approval of CAE for this bill in 2018, the initiative has been put into mothballs as no further progress has been made on the issue since the public hearing with CCJ held in 2020.

Current situation of SIB-related legislative system in Brazil



Source: "Projeto de Lei do Senado nº 338, de 2018"

• Figure 37: Current situation of SIB-related legislative system in Brazil

4. SIB establishment process and associated hurdles

4-1 General establishment process of SIBs

The process of setting up a SIB is basically divided into three stages, namely planning, structuring, and implementation. SIB processes and key tasks are shown in the following figure. The planning stage involves SIB theme selection and the engagement of stakeholders, i.e., outcome payers and intermediaries. A financing scheme and evaluation indicators will then be determined; service providers and investors will be secured. The implementation stage involves the management of service providers' service delivery and impact assessment.

It is important to seek agreement from different stakeholders such as outcome payers, intermediaries, service providers, and investors throughout the entire process.

SIB establishment process

| | Process | Key work items |
|-----------|--|---|
| Plan | Pick appropriate SIB themes | Identify social issues to addressAssume social interventions/solutions |
| A II | Engage outcome payers and intermediaries | • Confirm/build a SIB organizational structure |
| Structure | Define outcome metrics and financial incentives/budgeting | Secure budget Define outcome metrics Determine model for success payments |
| LITE | Select service delivery organizations & raise funds | Select service providers, evaluatorsMobilize funds |
| Implement | Deliver social services | Monitor the businessManage the services/business |
| nent | Evaluate outcomes | Analyze resultsReport to outcome payer |
| 1 | Chroughout the process | • Reach agreement with stakeholders |

• Figure 38: SIB establishment process

4-2 SIB process-specific challenges and potential solutions

4-2-1 Major challenges involved in each SIB establishment process

Main obstacles in each SIB process have become increasingly evident through the implementation of historical SIBs. The following figure shows main issues and hypothetical approaches to resolving them when formulating SIBs in OECD DAC List countries. The following sections describe in detail possible issues and potential solutions for each process.

Key issues Hypothetical solutions **Pick appropriate** SIB themes Plan 1.Securing outcome payers & Engage outcome payers after clearly defining Engage outcome payers service providers portfolio of service providers and intermediaries 2.Single-year budget constraints The gov't to set up their fund 3. Limitations of data acquisition for Adopt outcomes as KPIs and maintain the necessary **Define outcome metrics** setting outcome metrics data and financial incentives Structure /budgeting 4. Securing investors Specific players/gov't agencies to set up their own Select service delivery funds/Gov't to define incentive scheme organizations 5.Service delivery environment Fine-tune theme selection approaches, engage & raise funds players who are familiar with local markets 6.Risk of suspension and cancellation Identify the timing of SIB launch, engage due to government transition government agencies and ministries Implement **Deliver social services** Central gov't/municipalities' commitment to SIB implementation **Evaluate outcomes**

SIB process-specific challenges and hypothetical solutions

• Figure 39: SIB process-specific challenges and hypothetical solutions

4-2-2 (1) Securing outcome payers and service providers

At the stage of SIB theme selection and stakeholder engagement, there is a possible "chicken-and-egg" problem, in which SIB participants cannot announce their candidacy for outcome payer while service providers are left undecided. Conversely, service providers are not attracted to SIBs due to the nonexistence of outcome payers. The reason behind this is that the outcome payer's decision to enter into SIBs depends largely on the qualities of service providers, which will determine SIB future outcomes. Hence, it is difficult for them to make such decision when companies rendering social services are not decided. On the other hand, service providers cannot make such a decision neither because their outcome payments are not assured until an outcome payer is secured.

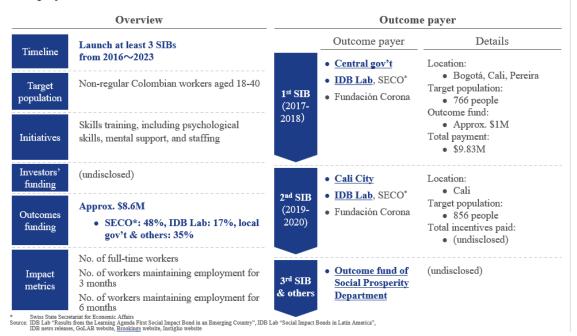
It is common for candidates of outcome payers to be decided first, then service providers are publicly invited to apply to join the projects afterward. However, in cases where it is challenging to engage outcome payers, it may be necessary to identify service providers first to present the project in a more concrete and detailed way. For example, as the Village Enterprise DIB in Kenya and Uganda has difficulty securing outcome payers, Instiglio, a SIB intermediary, has searched for service providers ahead of time and compiled a list of more than 80 service providers by itself. Instiglio has designed a model case that eyes specific service providers in the list to help secure USAID and DFID as SIB outcome payers.

4-2-3 (2) Single-year budget constraints

Another major obstacle in securing outcomes funds for SIBs is the system limitation in which the government can only secure a budget for a single fiscal year. The inability to secure funding spanning several years is a major issue for setting up a SIB, which is supposed to be designed and structured over multiple years.

In this regard, there are two main approaches to the aforementioned employment SIBs in Colombia. In the first and second case studies. IDB Lab, SECO and the Fundación Corona jointly participated as outcome payers to provide funds for the second and subsequent years, which the government could not secure. In many SIBs in OECD DAC List countries, private foundations and international financial institutions join as co-outcome payers with local authorities to overcome this single-year budget limitation. In the third and subsequent SIB projects, SIB outcomes funds are set up within the Social Prosperity Department with a mechanism in place for tackling the limitations of the single-year budget system.

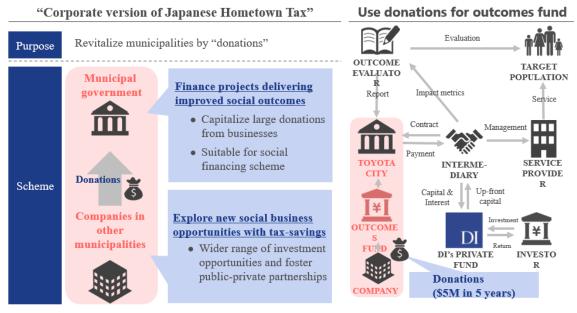
Employment SIBs in Colombia



• Figure 40: Employment SIB case study in Colombia (duplicate slide)

Structured by DI, the SIB of long-term care prevention in Toyota City adopts the corporate version of the hometown tax system of Japan to build a scheme that allows companies to provide funds to local government agencies through an outcomes fund. As a result, the city can secure a budget of 500 million yen in five years. This scheme also increases business opportunities for companies looking to address social issues and save on taxes at the same time.

The establishment of outcomes fund and the adoption of "Corporate version of Japanese hometown tax system"



• Figure 41: The establishment of outcomes fund and the adoption of "Corporate version of Japanese hometown tax system"

4-2-4 (3) Limitations of data acquisition for setting outcome metrics

The design of outcome metrics is a crucial point in designing a SIB. The three types of metrics generally used to measure outcomes are output, outcome and impact. Characteristics of SIB themes and stakeholder intentions are determinant factors to decide which metrics will be used. The following figure shows details regarding output, outcome, and impact, as well as main requirements for using these indicators in SIBs. The outcome is the metric adopted in most cases, as with the outcome metric, it is relatively easier to compare the results of SIB efforts over time or against the nonintervention scenario.

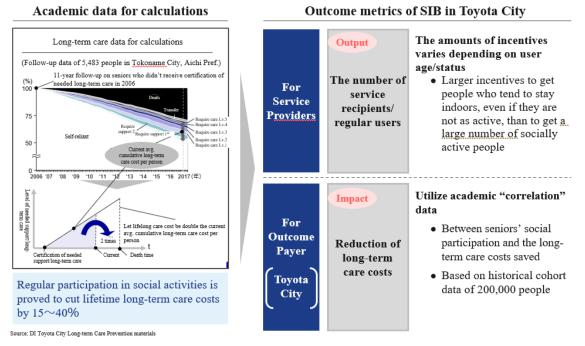
SIB impact metrics setting and measurement methods

| | Definition | Measurement methodology | Conditions of applying metrics |
|---------|--|--|---|
| Output | Implementation status of SIB activities E.g., the number of participants of nursing care prevention programs | Records of SIB activities and program implementation | Only use this metric for the below cases Carrying out SIB activities itself is the primary purpose of establishing SIB There are barriers to implementation / innovative activities, etc. And when the causal relationship between SIB activity, program implementation, and its impact can be defined |
| Outcome | Changes in target population/groups receiving social services in SIB programs E.g., effects observed in the target population/ groups | Measure changes in target groups before and after interventions Compare intervention & non-intervention groups Compare intervention groups with the historical average of populations having the same conditions | When a measurement environment is in place for evaluating specific target groups Historical data are particularly needed to compare "intervention groups with the historical average of populations having the same conditions" ⇒ Commonly used in existing SIBs |
| Impact | SIB social/economic outcomes achieved after the measurement process is completed E.g., nursing care cost savings of municipal gov'ts after SIBs | Estimate impacts by comparing "statistical data of municipal gov'ts and organizations" before and after SIB implementation | This metric can be used when the causal relationship between output, outcome, and impact can be defined Some cases also require long-term cohort analysis |

• Figure 42: SIB impact metrics setting and measurement methods

As previously mentioned, DI's SIB in Toyota City adopts output (the number of people participating in this long-term care prevention program) and impact (the resulting reduction in long-term care costs of Toyota City government) as its outcome's metrics. Longterm outcome observation and measurement are necessary in this SIB, for example, how the level of care required by each individual has decreased since they first participated in the program. There is a large gap in the timing implementation and outcome of SIB measurement. For these reasons, DI has designed KPIs based on research study results concerning the correlation between seniors' social participation and the resulting reduction in long-term nursing care costs.

KPIs set for Toyota City long-term care prevention SIB



• Figure 43: KPIs of Toyota city long-term care prevention SIB and related academic research (duplicate slide)

Regarding outcome measurement, a side-byside comparison of interventions and noninterventions for some topics and themes may raise the issue of equal opportunity. For example, a secondary education SIB in Brazil necessitates a random grouping of schools for SIB interventions and non-interventions to measure educational improvement. This action has triggered opposition from teachers claiming that the separation of intervened schools and non-intervened ones was a hindrance to the equality of opportunity in education of their Constitution. Specifically, when outcomes are used as KPIs, it is necessary to divide the population into intervention and non-intervention groups. Impact measurement is done by comparing these two groups, which is the cause of this inequality. The SIB was therefore cancelled when it was still at its setup stage. This issue can be addressed by making some changes to KPI setting and measurement methods (such as measuring changes over time) to ensure equal opportunities.

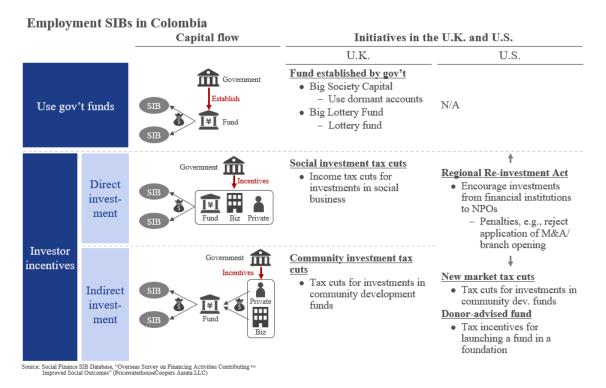
The problem of equal opportunities in impact measurement (education-related SIB in Brazil)

| SIB background | | Arguments of 2 groups concernin | g education SIBs |
|--|----------------------------------|--|---|
| IDB aimed to improve secondary education focusing on low graduation rates of public | | Opposition groups | Supporting groups |
| secondary schools in Sao Paulo IDB launched a SIB study in Brazil from 2016 Sao Paulo was selected for: The state gov't supportive stance for SIBs Alignment with IDB's overall strategy | Legal issues | Separated intervention and non- intervention groups and educational inequality are a violation of the Constitution • Conflict with universalism that recognizes education as a social right | Need to verify impacts with a control group in pilot projects North American education SIBs were criticized for measuring impacts without a control group |
| Strong financial strength of the government High-quality data in education sector Strengths of service providers Willingness to partnership with the private sectors | Ethical issues | School autonomy is violated • Interpreted as if the country/schools are unable to intervene in activities of service providers | School autonomy is not violated Prohibit service providers from any teaching/activities done without consent of school boards through contract binding |
| Public educators' opposition due to concerns and misunderstandings in policy changes Teachers' unions regarded SIB as a means of privatization | Issues in contract process | Missing school participation in decision-making process • Lack in information disclosure for schools • Schools that applied for intervention group were selected for non-intervention group, etc. | Free/voluntary participation of schools • Discussions with school boards based on explanatory materials • Reflect public consultation comments in calls for proposals |
| Source: "Education Policy Analysis Archives 26:130 (2018)" (Fernando L. Cás "Education Policy Analysis Archives 28:112 (2020)" (Sergio G. Lazzarini) | sio) | | |

• Figure 44: The problem of equal opportunities in impact measurement (education-related SIB in Brazil)

4-2-5 (4) Securing investors

Securing incentives for investors is also an important point in SIBs. In particular, the U.K. and the U.S. central/state governments have been taking certain efforts to secure funds. Capital for SIBs is secured by the U.K. government. Further, both the U.K. and the U.S. governments offer incentives for investors with tax breaks.



• Figure 45: Examples of incentives offered for investors and central government funding in developed countries

4-2-5 (5) Service delivery environment

It is essential to verify in advance whether an environment for service delivery is readily available to achieve SIB outcomes. For example, due to several environmental factors, the re-offending prevention SIB at Rikers Island prison in the U.S. could not render a smooth service, making the project terminated without achieving any results in the first year. Recidivism prevention is a favorite theme of many investors because social impacts can be seen in the short term. However, social impact may not be guaranteed in some local environments. Thus, it is important to have an in-depth understanding of local situation prior to any actual implementation.

Overview **Failure factor** Life-threatening incidents occurred daily to Timeline Beginning of 2013~End of August 2015 Class inmates, causing extensive class delays and interruptions Incarcerated youth of Rikers Island Correctional cancellations Target due to Center population prison Frequent lockdowns and emergency call-• About 2,000 people a year×3 years security outs Deliver Moral Reconation Therapy training Initiatives Frequently witness and experience violence by services guards, other prisoners; common practice of Loans from Up to \$9.6M (raised \$7.2M by the 1st assessment) solitary confinement Mental investors · 845 violent incidents caused by target pressure inmates reported in FY2013 Recidivism rate decrease of youth incarcerated in due to daily 517 violent incidents caused by prison 2013 acts of guards reported a year Indicator 1st assessment (July 2015): 9% · Subjugation and coercion by gang members violence • 2nd assessment (July 2017): 8.5% against target inmates become a norm Discontinued as it did not meet the target in the 1st assessment in 2015 (under 9%) Outcome Inmates who were released before they completed MRT in prison rarely joined correctional No returns Total paid education programs later on • MDRC used \$6M loan guarantee from Released Difficult to predict release time. Offenders released from prison are assigned to many by outcome Bloomberg to compensate GS. GS lost prisoners payer \$1.2M other obligations such as volunteer activities Source: "A Study of Social Impact Bond Establishment Process and Applicability to Recidivism Prevention in Japan"

Failure factors of New York City's Rikers Island recidivism prevention SIB

• Figure 46: Factors contributing to the failure of New York City's Rikers Island recidivism prevention SIB

4-2-6(6) Risk of suspension and cancellation due to government transition

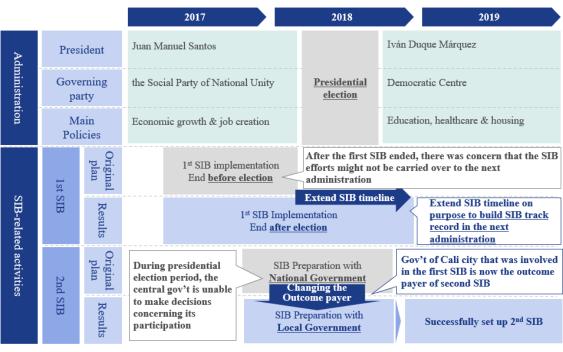
For SIBs with government agencies being an outcome payer, it is important to structure a SIB taking into account the timing of national elections and political cycles. In reality, there was a SIB project in the state of Jalisco (Mexico), which was cancelled with its pending preparations due to lengthy delays caused by difficulties in incentive and contractual arrangements with no results delivered for the current administration.

Brief summary of Jalisco women's economic empowerment SIB project cancellation (Mexico)

| (191 | Situation | Detailed reasons of cancellation |
|------------------|--|--|
| SIB preparation | From 2014, <u>IDB Lab conducted a research to</u> <u>find local gov't willing to launch SIBs and</u> <u>eventually worked with Jalisco government</u> IDB Lab held a SIB conference & met stakeholders IDB Lab worked with Social Finance to conduct a feasibility study | (1)Difficulties in incentive arrangements Service provider's costs were higher than expected Considered business model integration to reduce costs (2)Took 1 year to draft contracts and coordinate to |
| SIB cancellation | Cancelled due to its incompatibility with the country's political cycle Fundamental design, evaluation scheme design, legal and financial scheme design were carried out from '16~'17 Lengthy delays of the design process were caused by difficulties in incentive arrangements and contracts. Then the implementation process took place during the government transition period | establish a payment scheme A mix of public & private trusts Lengthy delays Suspended as there were no results produced within the current administration while the political benefits would be gained by the next government PJ preparatory works completed in 2017 but the election was held in July 2018 Jalisco gov't decided to cancel the PJ |
| Source: | Ethos Laboratorio de Políticas Públicas "El BIS mexicano: de la promesa de innovación a la frustración en su implementación" | |

• Figure 47: Brief summary of Jalisco women's economic empowerment SIB project cancellation (Mexico)

On the other hand, in Colombia, several measures have been taken to avoid the risk from government transition that may affect continuous SIB establishments. The timeline of the first SIB, which was initially scheduled to complete before the national election, was extended on purpose to create a track record within the next administration. And the outcome payer of the second SIB was changed from the central government to a local government as the central government would be left with little freedom of decision making during the presidential election.



Source: GoLAB, "Colombia Workforce Development Social Impact Bond - EMPLEANDO FUTURO"

 Figure 48: Adjustments of the employment SIB during the national election in Colombia

4-2-7 Summary of major challenges in SIB establishment process and hypothetical solutions

In light of the above SIB challenges and potential solutions, the establishment of SIBs necessitates an environment well developed by the central government and the commitment of local government agencies to individual SIB projects. The state or central government is required to develop a legal system for SIB implementation and favorable tax treatments for stakeholders, set up an outcomes fund, and determine policies to support SIB initiatives across the region. The local government will need to commit to the continued implementation of SIBs and make policy decisions that take regional SIB initiatives into account.

| | | Key issues | Key driver | Requi | red government actions |
|-----------|--|---|-------------------------|-----------------|---|
| Plan | Pick appropriate SIB themes | | | | Regulatory framework for SIB implementation |
| Ē | Engage outcome payers and intermediaries | 1.Securing outcome payers & service providers | Promoter | Central governt | • Incentives for stakeholders through taxation |
| | | 2.Single-year budget constraints | ſ | | • Set up a fund for |
| Structure | Define outcome metrics and financial incentives /budgeting | 3. Limitations of data acquisition for setting outcome metrics | Central _ government | vernt | success payment and financing Determine policies taking into account |
| ture | Select service delivery organizations | 4. Securing investors | | | regional SIBs |
| | & raise funds | 5.Service delivery environment | Promoter | Mu | Commit to continuous |
| H | • Deliver social services | 6.Risk of suspension and cancellation due to government transition | Central government | Municipal | implementation of SIBs |
| Implement | | | Municipal overnment | | Determine policies taking into account |
| nent | Evaluate outcomes | | | government • | SIB initiatives |

Major challenges and solutions for each SIB setup process

Figure 49: Major challenges and hypothetical solutions in each SIB establishment

process

Based on the SIB case studies in LAC, we found that successful SIB projects are those with a well-developed SIB implementation environment and the according government's commitment. The success factor of Colombia's employment support SIB is the central government's commitment to the establishment and continued implementation of SIB, including the establishment of outcomes fund. It is especially important to note that the first SIB launched by the central government sets a precedent and starts a trend for other local governments to follow. Meanwhile, Buenos Aires city government has a huge incentive when launching SIBs, a driver making Argentina's youth employment SIB successful. On the other hand, the central government of Chile could not participate in education-related SIBs as an outcome payer due to legal restraints, thus DIBs can only be established by private players. In Brazil, a secondary education SIB initiative was halted due to opposition from surrounding players. In Mexico, a government transition has suspended a SIB program due to the concern that the next administration would take credit for the intended outcomes. Based on these success and failure factors, the lessons learnt are the development of an ecosystem for sustainable SIB developments and the government's commitment.

The establishment and influencing factors of government-involved SIBs

| | Colombia: Employment | Argentina: Employment | Chile: Education | Brazil: Education | Mexico: Healthcare |
|----------------------|--|--|---|--|---------------------------------|
| Outcome payer | 1 st : Central gov't 2 nd : Cali City 3 rd : TBD, central gov't to set up fund | Buenos Aires | Central government | São Paulo | Jalisco |
| Status | Established (1 st and 2 nd) • The 3 rd SIB is under review | Ongoing | Ongoing; the central gov't is not engaged in SIB as an outcome payer | Suspended | Suspended |
| Background factor | SIB is structured with the central government's engagement in continuous implementation | The commitment of Buenos Aires as an outcome payer | Regulations | Due to opposition activities of educators | Due to government transition |

Figure 50: The establishment and influencing factors of gov't-involved SIBs

5. Identification of potential SIB themes in LAC

5-1 Ripple effect scenario for sustainable SIB development in LAC

5-1-1 DI's hypothesis concerning SIB ripple scenario in LAC

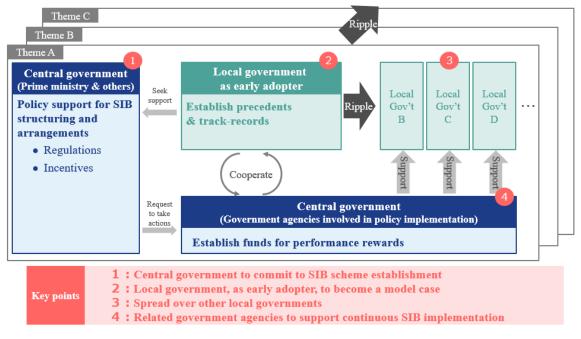
DI has formulated a hypothesis of ripple effect scenario for a sustainable development of SIB in LAC to address the hurdles associated with forming SIBs which we have studied in Chapter 4.

As depicted in Figure 51, the four key points to realize in this scenario are:

1) A commitment of state or central

governments to the establishment of SIBs through government policy support to ensure a sound regulatory framework and stakeholder incentives; 2) SIB precedents formed by municipal governments as early adopters;

3) Use of these precedents to spread similar SIB initiatives to other municipal governments; and 4) A commitment of state or central government ministries and agencies associated with areas covered by the SIB to the establishment of outcomes funds and other arrangements to ensure a continuous implementation of SIB.



The "Ripple Effect" scenario for sustainable SIB development in LAC (DI's hypothesis)

Figure 51: "Ripple effect" scenario for sustainable SIB development in LAC (DI's hypothesis)

Regarding point 1), there are many examples in LAC where the local legal systems prevent a sustainable development approach to SIBs, thus, creating an environment for SIB implementations needs to be a top priority of central governments. For 2), securing early adopters to set precedents would be a major steppingstone to spread SIBs across the entire nation, similarly to the employment support SIBs in Colombia where the central government established the first SIB for other municipal governments to follow the example given. As SIBs often involve complicated and sometimes arduous design processes, studies, and operation, precedent maker should be a governmental body with competent abilities. Regarding 3), government's commitment to SIBs will be a major success factor given the fact that a number of SIBs across the globe have been discontinued due to government transitions and changes in policies. As for 4), to overcome single-year budget limitations, each government needs to secure a multi-year budget for SIB implementations. The establishment of an outcomes fund within the government could remove such constraints and allow continued developments of SIB programs.

5-1-2 IDB Lab's view concerning DI's hypothetical SIB ripple effect scenario in LAC

DI held a meeting with Ms. Christine Ternent, SIB program leader at IDB Lab - a pioneer in developing SIBs in LAC and Mr, Tetsuro Narita, senior specialist with the Investment Unit of IDB Lab, to discuss the aforementioned hypothesis. In the meeting, Ms. Ternent made the following comments.

The key is to locate municipal governments that are open to innovative initiatives as early adopters. In particular, the commitment of these governments is a major premise, as they tend to be conservative. Since there are many cases where local governments in LAC do not have enough budget dedicated to SIBs, engaging government agencies after setting a precedent of DIB (a SIB scheme in which outcome payers are not government bodies, but private foundations or philanthropists) could be a potential approach. In view of the foregoing, it is necessary to facilitate the establishment of SIBs with multiple programs formed as examples to clear certain hurdles in engaging local governments. It is also important to have alternative proposals without sticking to a single SIB. In addition, the establishment of outcomes funds within central governments is crucial for the establishment of a series of SIBs due to large single-year budget constraints.

Mr. Narita also made the following comments. In the context of IDB or JICA to make social impact on LAC, not only the cooperation with innovative servicers but also an innovative financial scheme must be considered. In that point of view, understanding failure cases is also crucial. For example, foreign exchange risk is expected when such institution as IDB or JICA supports SIB.

DI's views in response to the above comments are as follows.

DI regards forming DIB as an option in the first place in order to establish a track record and demonstrate the usefulness of this scheme to the government. On the other hand, considering the sustainability of the scheme, we believe it is essential to involve the government in the scheme. Particularly, many social issues in OECD DAC List countries are tackled by the governments through public services and policies. Hence, even when the private sectors launch initiatives without the public sectors' engagement, it is essential to align with these policies. Not only do examples created by the private sectors matter, but the government's track records also help back the spread of SIBs. DI perceives that planning with a vision towards continued establishment of SIBs will have significant value. In particular, what matters the most in setting up an SIB is the possibility to collaborate with government agencies who are interested in SIB model, and it is so important

to secure a number of such governmental candidates to ensure the success of SIB implementation.

5-2 SIB theme screening methodology

5-2-1 Methodology

In this study, highly potential SIB themes in the three target countries are identified by deductive reasoning. Based on the hypothetical SIB ripple effect scenario in LAC described in section 5-1, DI has developed a three-step screening process with clearly defined evaluation criteria taking into account the requirements of creating SIBs. The following figure gives an overview of the whole approach for identification of highly potential themes.

SIB theme screening process

| | 2.Which th | eme to adopt ? |
|--|---|--|
| 1.Which local government ? | a.Scan governmental development program list | b.Screen suitable SIB themes |
| CapabilityInfluence & willingness to | A : SIB applicability B : Sustainability | • α : The government's attention |
| involve in new initiativesAdequate published data | Amount of central/local government spending | Government budget β: Ease of SIB adoption |
| Stable government foundation | 0 1 0 | – Ease of evaluation |
| Toundation | | – Precedents |
| | | • γ : Synergies with JI |

• Figure 52: SIB theme screening process

5-2-2 Identification of early adopters

The first step is to select local governments in each target country as SIB early adopter candidates. The screening process considers four factors namely government capacity, influence on other local authorities and willingness to carry out new initiatives, availability of necessary data, and political stability. The selection method and results are shown in the following figure.

•

1. Selection of municipal governments as early adopters

| | Selection method | | | | Initial selection results (proposal) | | | | |
|---|-------------------------------------|--|---|--|--------------------------------------|-----------------------|-------------------------------|------------------------------|--|
| | | Description | Verification | | | | 1 st pick | 2 nd pick | |
| | Capability | Capable of planning, operating SIBs with few precedents or not? • Sufficient | Cross-municipality comparison by economic scale & population • GDP, population, | | Bŗ | State gov't | State of São Paulo | Rio de Janeiro state | |
| | × | HR/financial resource? | tax revenue, etc. | | Brazil | Local gov't | São Paulo city | Rio de Janeiro city | |
| | Influence & | Easy to obtain central gov't support or not? | Capital or major | | | | | | |
| | willingness to involve in new | Strong influence on other municipalities? Open to new initiatives or not? | cities Proven track record of sensational | | Colo | Department's gov't | Valle del Cauca department | Antioquia department | |
| | initiatives X | | initiatives | | Colombia | Local gov't | Cali city | Medellín city | |
| | Adequate | Is it possible to have a grasp of budget/ financial structure for | Confirm data | | | 8 | | | |
| | published data | financial structure for each item in their plans with data available? | availability | | н | Regional gov't | Arequipa region | Department of La Libertad | |
| í | × | East to avoid the sight | | | Peru | | | | |
| | Stable gov't foundation | Easy to avoid the risk of SIB cancellation due to gov't transition or not? | verify the stability | | | Local gov't | Lima city | Arequipa city | |

Figure 53: 1) Selection of municipal governments as early adopters

5-2-3 Identification of highly potential SIB themes through public expenditure structure analysis

With a comprehensive understanding of issues faced by early adopter candidates that are identified based on mid-to-long term development plans of selected local governments, DI examines and screens major items from those plans based on their SIB applicability and sustainability. The criterion of SIB applicability is defined as the correlation between those development plan items and their social significance and outcomes measurability. With the criterion of sustainability, common issues among several potential early adopters and the level of interest of both central and local governments are evaluated. The level of interest of both central and local governments is evaluated based on their independent financial contributions associated with mid- to longterm development plans and citizen satisfaction with public services.

2a.Development program list screening methodology

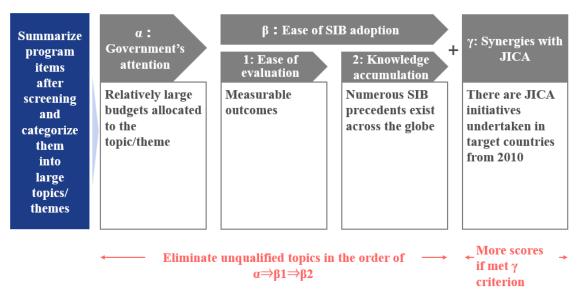
| Zu.Development program hist sereening methodology | | | | | |
|---|---|--|---|--|--|
| | Screening | criteria | Reasoning | Detailed screening method | |
| Database screening: Med- to long-term development plans of first-pick states and cities | | | Comprehensively identify issues of early adopters/gov't | | |
| A SIB | | A-1 issues with limited impact/scope | Any issue that's unlikely to relate directly to addressing social issues is not within the scope of SIB | Eliminate issues under 4 categories • Bureaucracy & institutional mgmt./economics & public finance/military & public security/ diplomacy & int'l relations | |
| appli- cability | A-2 Eliminate ones w/ quantitatively unmeasurable or unassessable outcomes | | SIB performance outcomes need to be measured quantitatively | Eliminate issues that fall under 3 categories below • Those of R&D purposes/ one- time capital investment/ system-related affairs | |
| | | B-1 issues shared by ential early adopters | To confirm that the issue does not relate only to specific municipalities but is commonly shared by many in the pool | Eliminate issues that are not common to dev. plans of second-pick municipalities/early adopters | |
| B Sustai- nability | Attention of central/ | B-2 Independent finance from central/ municipal gov't | Easy to create ownership mentality within municipal gov'ts, and central gov't also has incentives for support | Extract items with high municipal/ central gov't spending from their budget resources for each item | |
| | municipal gov'ts | B-3 Satisfaction with public services | For issues that are missed in B- 2, pick those with strong issue awareness | Extract items in areas where there are issues found in surveys of citizen satisfaction with public services | |

Figure 54: 2)a Development program list screening methodology

5-2-4 Evaluation process of highly potential SIB themes

Similar items and topics extracted from selected mid-to-long term plans are grouped into larger themes. Those umbrella themes are then evaluated against three distinct criteria of (α) Government budget size, (β 1) Ease of outcome evaluation, and (β 2) Degree of knowledge accumulation to identify the most promising ones. Unqualified themes will be deprioritized, then more scores will be added if the criterion (γ) Synergies with JICA is met. The detailed approach is shown in the following figure.

2b.Potential ratings: Categorize selected items into larger topics and evaluate their potential



• Figure 55: 2)b Potential ratings: Categorize selected items into larger topics and evaluate their potential

Evaluation results of potential SIB themes in the target countries are shown in the following figures.

| Peru: Evalu | ation of potential themes | | | | | DI's rating High Med Low | |
|-------------|------------------------------------|--------------------|--------------|---------------------------------|----------------------------|-----------------------------|--|
| Potential | Theme | a: Gov't attention | | β: Ease of adoption | | + γ: Synergies | |
| | | State budget* | City budget* | Evaluation | Precedents | with JICA | |
| | Healthcare facility operation | 111,999,482 | | | | | |
| | Lifestyle diseases | 54,288,429 | | | | | |
| High | Maternal care/Education | 36,843,494 | | | | | |
| | Employment support | 8,168,232 | 43,256,157 | | | | |
| | Solid waste disposal | | 73,220,074 | | | Solid waste disposal | |
| Medium | Water/sewerage improvement | 20,502,439 | | | Precedent in Washington | | |
| | Maintenance | 11,224,008 | 115,529,919 | Hard to evaluate outcomes | | Lima, etc. | |
| | Primary and secondary education | 13,725,035 | | | | | |
| | Crime rate | | 38,011,251 | | | | |
| | Higher education/ Employment | 21,959,000 | | | Employment support | | |
| Low | Improved irrigation | 18,208,243 | | | | Mountain- ous areas | |
| | Infectious disease | 21,813,348 | | | | | |
| | Mental health | 3,089,388 | | | | | |
| | Family planning | 2,949,103 | | Hard to evaluate outcomes | | | |
| | Road accidents/Traffic jams | | 16,343,440 | Hard to evaluate outcomes | | | |

Figure 56: Peru: Evaluation of potential themes

| azil: Evalu | uation of potential themes | | | | | DI's rating High Med Lo |
|-------------|-----------------------------------|---------------|--------------|---------------------------------|----------------------------|-----------------------------|
| Potential | Theme | a: Gov't : | attention | β: Ease of | adoption | γ: Synergi |
| rotential | 1 liellie | State budget* | City budget* | Evaluation | Precedents | with JIC. |
| | Chronic diseases | 94,962 | 28,220 | | | |
| | Preschool~ secondary education | 57,637 | 49,804 | | | |
| High | Higher education/ Employment | 46,937 | | | Employment support | |
| - | Water/sewerage improvement | 79,084 | | | Precedent in Washington | Sao Paulo State, etc |
| | Solid waste disposal | | 13,290 | | | E-waste |
| Medium | Crime rate | 18,159 | 3,389 | | | Regional poli activities |
| | Railway efficiency | 32,731 | | | | |
| | Road accidents/Traffic jams | 9,295 | 18,373 | Hard to evaluate outcomes | | ITS |
| | Youth care | 7,679 | | | | |
| Low | Poverty and unemployment | 3,281 | 2,603 | | | |
| | Residential environment | 4,414 | | | | |
| | Infectious disease control | 1,766 | | | | |
| | Flood control | 4,128 | 53 | Hard to evaluate | | Sao Paulo State, etc |

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| | | | | | I's rating ligh Med Low | |
|---|--|---------------|--------------------|------------------------------|-----------------------------|------------------------|
| Potential Theme | | a: Gov't : | α: Gov't attention | | adoption | + γ: Synergies |
| | | State budget* | City budget* | Evaluation | Precedents | with JICA |
| | Primary and secondary education | 2,157,641 | 2,802,843 | | | |
| High | Chronic diseases | 30,475 | 3,458,135 | | | |
| | Higher education/ Employment | 418,686 | 337,247 | | Employment support | |
| Medium | Farmers' livelihood improvement | 26,500 | | | | 1 village 1 product |
| | Water/sewerage improvement | 205,253 | 618,876 | | Precedent in Washington | |
| | Road accidents/Traffic jams | 474,298 | 1,591,040 | Hard to evaluate outcomes | | |
| | Crime rate | | 876,082 | | | |
| | Maternal care/Education | 8,527 | 338,389 | | | |
| Low | Residential environment | | 12,198 | | | |
| LOW | Infectious disease control | 42,139 | Î | | | |
| | Mental health/Work accident | 9,240 | 88,174 | | | |
| | Long-term care | | 72,573 | Hard to evaluate outcomes | Precedent in Toyota City | |
| | Disaster prevention Reconstruction | 19,751 | 406,239 | | Toyota City | Flood risk |
| | Fostering startups | 47,535 | | | | |
| State budget: FY2020, | city budget: Total of FY2020-FY2023 / Unit: Million peso | | | | | |

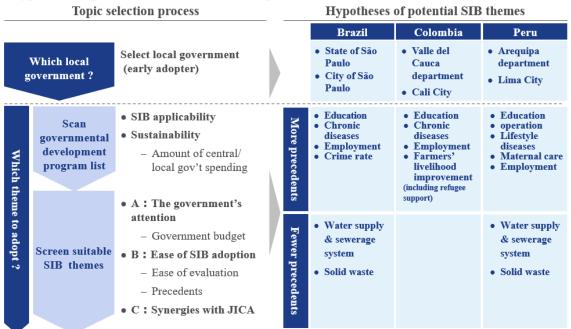
State budget: FY2020, city budget: Total of FY2020-FY2023 / Unit: Million peso

Figure 58: Colombia: Evaluation of potential themes ٠

5-3 Selection results of potential SIB themes

With the above approach, the most promising SIB themes for each target country are identified and shown in the following figure.

Hypothesis of potential SIB themes in the target countries



• Figure 59: Hypothesis of potential SIB themes in the target countries

6. Case study on SIB scheme applicability into potential SIB themes in LAC

6-1 Selection of key SIB themes

Firstly, we performed initial feasibility studies on the establishment of SIBs in four potential themes (issue areas) based on the availability of future pipelines and JICA's network in the target countries.

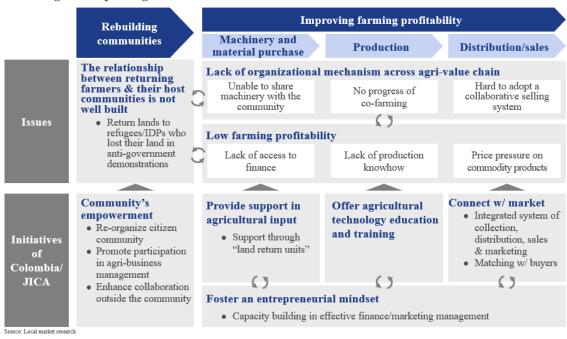
Improving livelihoods of farmers in Colombia is a chosen area of study as JICA has started a technical assistance project there on livelihood improvement for victims of conflicts from 2021.

Meanwhile in Brazil, JICA is working to expand community policing activities to various regions of the country and is currently cooperating with the Sao Paulo state police to measure social impact of their past community policing activities. Crime decline is therefore our selected area of study.

For Peru, water supply and sewerage infrastructure are selected for further studies because of JICA's strong network with a water supply company named SEDAPAL in Lima. Their relationship with JICA has been cultivated through various assistance programs conducted thus far. With multiple Japanese ODA loan projects involving solid waste implemented since 2012, we also select solid waste as one of our themes for SIB scheme study.

6-2 SIB scheme applicability to livelihood improvement of farmers in Colombia6-2-1 Problem structure in Colombia

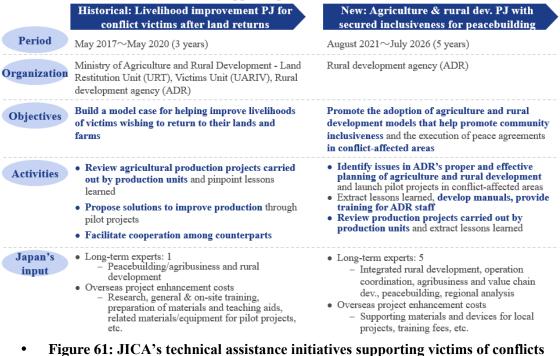
In 2011, the Colombia's congress enacted Victims and Land Restitution Law aiming to return lands that have been stolen or abandoned through violence and fraud by antigovernment armed groups during the Colombian conflict to their original owners Accordingly, and farmers. the Land Restitution Unit (URT) has been established under the Ministry of Agriculture and Rural Development, putting self-sufficiency and reconstruction of life for conflicts' victims in the limelight. Building a relationship with host communities – a solid foundation for farming activities and maintenance of farmers' livelihoods, has emerged as a major challenge facing the victims. Another significant challenge in supporting their self-sufficiency involves strengthening agricultural production system to improve farmers' livelihoods. Since 2017, JICA with its technical assistance projects has been supporting victims of longrunning armed conflicts after land returns. The following figures show the problem structure in this country and JICA's relevant initiatives.



Challenges in improving the livelihood of farmers in Colombia and JICA's initiatives

• Figure 60: Challenges in improving the livelihood of farmers in Colombia and JICA's initiatives

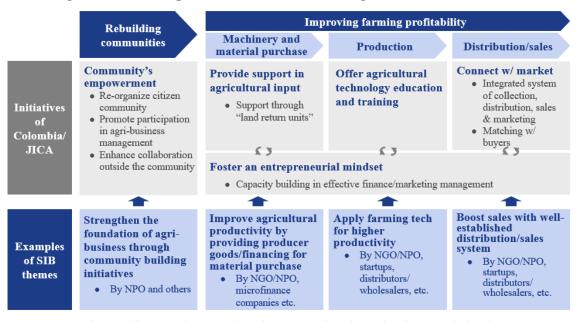
JICA's technical assistance initiatives supporting victims of conflicts in Colombia



in Colombia

6-2-2 Options for SIB scheme adoption

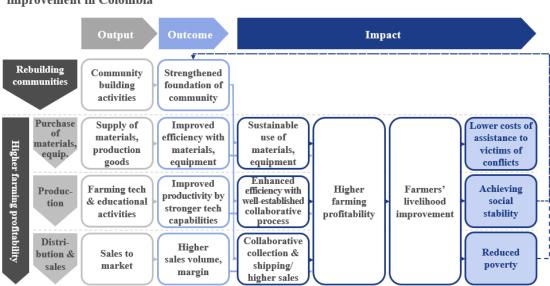
The adoption of SIB model can create a greater social impact that helps address the said social challenges utilizing resources from the private sector. See the following figures for possible SIB options for this theme in Colombia.



Possible options for launching SIBs for farmers' livelihood improvement in Colombia

• Figure 62 : Possible options for launching SIBs for farmers' livelihood improvement in Colombia

The following figure shows the projected socio-economic impact the SIB with this theme would create.



Projected socio-economic impact generated from the launch of SIB for farmers' livelihood improvement in Colombia

• Figure 63 : Projected socio-economic impact generated from the launch of SIB for farmers' livelihood improvement in Colombia

6-3 SIB scheme applicability to crime decline in Brazil

6-3-1 Problem structure in Brazil

High crime rates remain a matter of concern in Brazil. The high incarceration rates are due to its worsening public security, stagnant trial proceedings, and deteriorating conditions at the country's prisons. JICA has been promoting community policing activities introducing Japan's police box system to local communities as a crime preventive measure. There are two main objectives of community policing: maintaining public safety and building trust between the police and residents. The following figure shows the problem structure concerning crime reduction in Brazil and possible options for SIB scheme adoption.

Problem structure of crime decline in Brazil and possible options for SIB scheme adoption

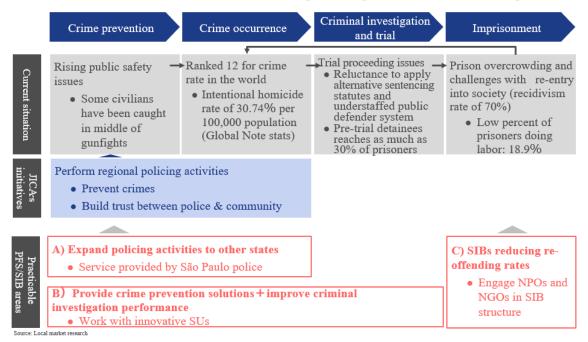
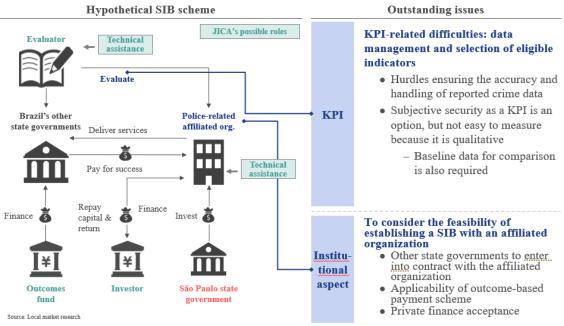


 Figure 64: Problem structure of crime decline in Brazil and possible options for SIB scheme adoption

6-3-2 Options for SIB scheme adoption

With regard to the expansion of community policing activities to other regions (A in the Figure 64), a SIB scheme could be formed with an affiliated organization being established by a local government with rich experience in community policing such as the government of Sao Paulo state to provide other states with community-policing capacity building service (under an outcomes-based contract). Hurdles concerning outcome metrics have also been recognized, such as having data as a basis for measurement and the eligibility of qualitative indicators like perceived public safety. Further, it is essential to verify the feasibility on institutional aspects when developing a SIB scheme with an affiliated organization of the government included. The following figure shows a hypothetical SIB scheme.

A) Proposed SIB scheme for the expansion of community policing activities to other regions in Brazil



• Figure 65: A) Proposed SIB scheme for the expansion of community policing activities to other regions in Brazil

Other potential options include the use of SIB model for employing innovative solutions provided by start-ups (B in the Figure 64). See examples below.

B) Examples of some solutions for crime prevention and enhanced efficiency and effectiveness of criminal investigation

| | Crime prevention Crime occurrence Criminal investigation and trial |
|---------------------|--|
| D'' | Fogo Cruzado: Gunfight avoidance app Early warnings of possible shootings in Rio de Janeiro Over 250,000 downloads |
| Brazil | Cargo X: Truck robbery avoidance app Warn drivers when they deviate from normally safe travel routes and send alerts of robbery Over 5,000 truck drivers as registered users |
| | Shotspotter (U.S.): Gunfight warning system Precisely locate shootings using acoustic sensors placed around town and send alerts to the police Used by more than 120 police departments in the U.S. |
| World | NEC + Police of Kyoto (Japan): Highly efficient patrol route system Analyze crime data in Kyoto over the past decade, including types, locations, and time of day to identify priority areas |
| | Citizen (U.S.): Push notifications + Efficient crime-tracking SNS Provide instant notifications, real-time police radios, live footage of reported crime scenes and incidents Acquired 5,000,000 MAU |
| Source: Company web | |

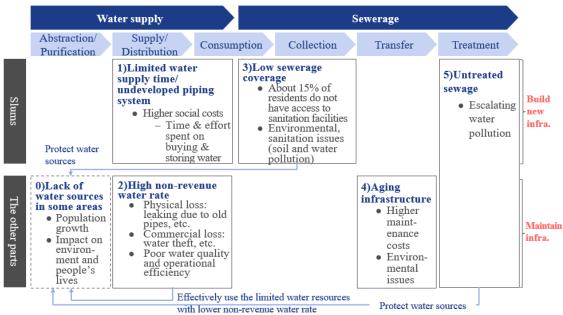
• Figure 66: B) Examples of some solutions for crime prevention and enhanced

efficiency and effectiveness of criminal investigation

6-4 SIB scheme applicability to water supply and sewerage infrastructure in Peru

6-4-1 Problem structure in Peru

In Peru, there is a vast difference between the problem structure of water supply and sewerage infrastructure in slums and other regions due to different infrastructure development conditions. Building new infrastructure is a major challenge at slums while what matters for other areas is the maintenance of infrastructure. The following figure depicts the problem structure of water supply and sewerage infrastructure in Peru.



Problem structure of water supply and sewerage infrastructure in Peru

Source: Local Market Research, DI Interview

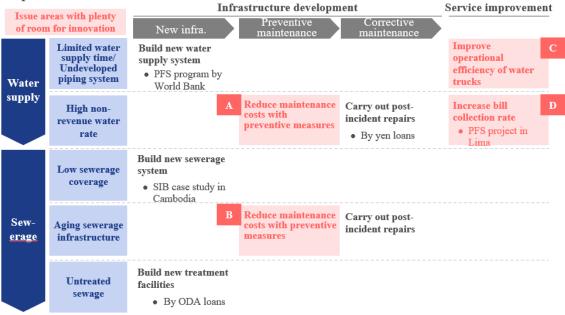
• Figure 67: Problem structure of water supply and sewerage infrastructure in

Peru

6-4-2 Options for SIB scheme adoption

Among several issues in water supply and sewerage infrastructure in Peru, there are four major problems with ample room for creative SIB applications. The following figure includes some options for adopting SIB scheme in this area.

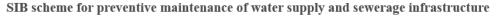
Possible options for launching SIBs for water supply and sewerage infrastructure improvement in Peru

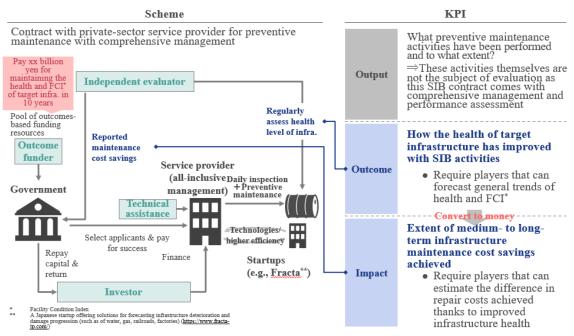


Source: Local Market Research, DI Interview

• Figure 68: Possible options for launching SIBs for water supply and sewerage infrastructure improvement in Peru

In the preventive maintenance framework of water supply and sewerage infrastructure (A and B in the Figure 68), SIB initiatives aiming at reducing maintenance costs are feasible with the engagement of private-sector stakeholders and comprehensive а management system in place. A major point we need to consider is how to secure the evaluation capability needed for assessing the effectiveness of preventive maintenance measures. The following figure provides an overview of SIB scheme of preventive maintenance.





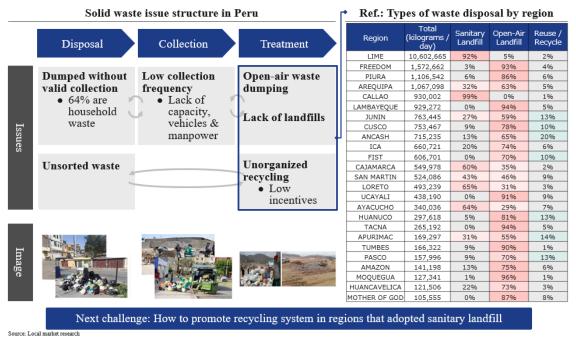
• Figure 69: SIB scheme for preventive maintenance of water supply and sewerage infrastructure

6-5 SIB scheme applicability to solid waste issue in Peru

6-5-1 Problem structure in Peru

Solid waste issue has become a challenging social issue in Peru. Trash is openly dumped and piled up in many areas severely affecting the surrounding environment and health of local communities. Even in areas where the shift from open dumping to sanitary landfilling is promoted, recycling rates remain low. The following figure illustrates the existing problem structure in Peru.

Problem structure of solid waste in Peru



• Figure 70: Problem structure of solid waste in Peru

Since 2012, JICA has been providing support for the establishment of sanitary landfills and enhanced waste collection efficiency through co-financing with IDB. Plus, a Japanese ODA loan project is being scheduled for closure of open dumping sites in some cities in Peru where new sanitary landfills have been constructed since December 2012. The following figure shows an outline of the Japanese ODA loan projects in Peru.

| | Solid Waste Management Project (I) | Solid Waste Management Project (II) |
|----------------------|--|---|
| Timeline | October 2012~June 2022 | December 2021~December 2025 |
| Implementing body | Corporación Financiera de Desarrollo S.A, "COFIDE" (Development financial corporation) | Ministry of the Environment |
| Aim/ outline | Aim to improve solid waste collection, final disposal system in 23 cities in Peru Aim to improve integrated waste treatment & management capacity Contribute to the improvement of natural and living environments of local residents, climate change mitigation | Close old open dumping sites in Peruvian cities where new sanitary landfills were built in Phase I Aim to improve integrated waste treatment and management capacity Contribute to environmental improvement of the country |
| Fund allocation | Construction works for new sanitary landfills Procurement of materials and equipment Heavy machinery for landfill operation, collection and transport vehicles, etc. Consulting services | Closure of open dumping sites Final soil cover, gas venting system, etc. Consulting Detailed design, construction management, project management support, capacity building support for local governments, awareness-raising efforts towards local residents, social participation support for waste pickers, etc. |

Overview of "Solid Waste Management Project" in Peru

• Figure 71 : Overview of "Solid Waste Management Project" in Peru

6-5-2 Options for SIB scheme adoption

The following figure shows potential SIB options associated with solid waste in Peru. In addition to issues to be addressed with ODA loan projects, a greater social impact can be achieved by incorporating innovative solutions from the private sector for increasing waste collection efficiency, promoting recycling, and supporting waste pickers in seeking employments who will lose their income due to open dumping site closures.

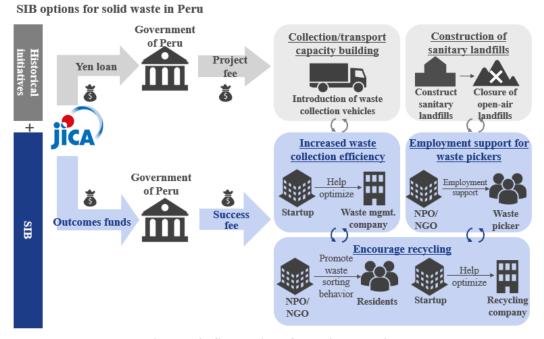
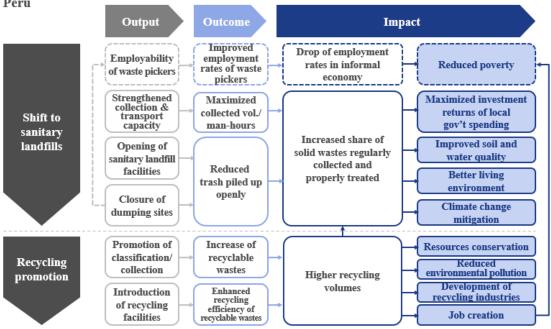


Figure 72: SIB options for solid waste in Peru

The following figure shows projected socioeconomic impact of SIB with this theme.



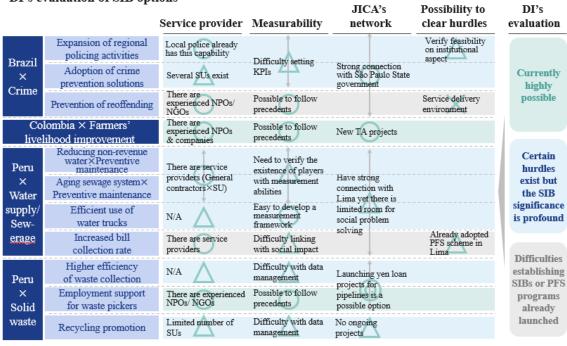
Projected socio-economic impact generated from the launch of SIBs for solid waste in Peru

• Figure 73 : Projected socio-economic impact generated from the launch of SIBs for solid waste in Peru

7. Results of our discussions with the local governments

7-1 Selection of themes for our discussions with the local governments

Our feasibility criteria to assess four potential SIB options selected for further discussion with the local governments include the presence of relevant service providers, measurability of KPIs, JICA's local network, and possibility to clear other expected hurdles. The following figure shows our evaluation results of these SIB options.



DI's evaluation of SIB options

Figure 74: DI's evaluation of SIB options

As a result of initial evaluation, JICA and DI have had some meetings with the Colombian and Peruvian governments on rural development and solid waste respectively. These two themes turn out to have large potential for SIB establishment thanks to the presence of competent service providers capable of rendering necessary services, identifiable sets of metrics, and future promising pipelines.

7-2 Results of our discussions on SIB applicability to the improvement of farmers' livelihoods in Colombia

A discussion was held with the Rural Development Agency (ADR) that is in charge

of the project named "Agricultural and Rural Development with Secured Inclusiveness for Peacebuilding" in Colombia. The meeting summary is provided below.

| Date & time | December 23, 2021 from 8:00-9:30 (JST) |
|--------------|---|
| Format | Online |
| Participants | Carolos Alberto Parodi, Director de Calificación y Cofinanciación |
| from ADR | Diego Acosta Peláez, Director de Participación y Asociatividad |
| | Alejandra Pineda García |
| | Sandra Maria Martinez Theran |
| | Wilson Mauricio Rodriguez Triviño |
| | Yolanda Ojeda Torres |
| | Carlos Enrique Bustos Morales |
| | Eiji Eguchi |
| | Toshiaki Kurihara |

Active questions mainly about a budget issue arose from ADR side in the discussion. ADR is unable to set a budget on its own and serve as an outcome payer in SIB programs. In order for the Colombian government to participate in SIB schemes as an outcome payer, it is necessary to approach the ministry that controls ADR's budget, i.e., the Ministry of Agriculture and Rural Development. Since budget requests need to be made to the Ministry of Agriculture and Rural Development, an in-depth understanding of technical aspects of SIB programs is required, especially in terms of funding. Overall, the participants expressed strong interest in SIB schemes and agreed to prepare a list of SIBrelated questions for us. In addition, the following issues needs to be examined further in future discussions with ADR.

1) Who will provide funding and how?

How to design fund flows? Since ADR will be in charge of SIB implementation and is unable to serve as an outcome payer, it is necessary to approach their higher authority - Ministry of Agriculture and Rural Development for budget-related issues. In addition, careful considerations are required when determining an optimal capital structure for investors, such as a fund or a donation.

2) What role can ADR play in SIB schemes? In light of the above, how ADR should engage in a SIB scheme? Is it possible to serve as a service provider?

3) Implementation of SIB programs will necessitate capacity building of the government and related stakeholders. How much budget will be required for this?

4) How to set KPIs for measurement of social economic impact of SIB?

7-3 Results of our discussions on SIB applicability to solid waste issues in Peru JICA and DI have held a talk with officials from the Ministry of the Environment of Peru, "the competent authority of Solid Waste Management Project Phase 2" which is scheduled as an ODA loan project in 2021. The section below is our meeting summary.

| Date & time | November 16, 2021 from 8:00-9:30 (JST) |
|--------------|--|
| Format | Online |
| Participants | Edgar Romero : Director de la Dirección General de Gestión de Residuos |
| from the | Sólidos (DGRS) |
| Peruvian | Luis Sáenz: Coordinador de la Unidad Ejecutora 003 (Executing Agency) |
| government | Juan Pilco: Coordinador Técnico de la Fase II de RRSS |
| | Luz Mendoza: Especialista social programa 2 BID |
| | Juana Miyahira: Consultora local de JICA del Proyecto RRSS |
| | Diaz Maria Pia |

Overall, positive interest was also confirmed from the Ministry of the Environment regarding the establishment of a SIB centering social inclusion for waste pickers. A summary of responses obtained from the Ministry of the Environment is described below.

In Peru, social inclusion and employment support for people working in informal waste sector are hot social issues, especially in the recycling sector where there is a large number of people engaged in informal sector activities such as waste pickers. Phase 2 of the Solid Waste Management Project covers employment support for waste pickers in 18 open dumping sites. A main aim is to put them in formal recycling companies. There are several options for consideration, including providing waste pickers with access to technical training and employment opportunities, support for recycling companies employing those workers, etc.

During the meeting, the Ministry of the Environment raised questions around (1) impacts of SIB projects on the existing system, (2) precedents in the area of solid waste, and (3) Development process of SIB scheme. Their first concern was (1) Impacts of SIB projects on the existing system. DI has commented that it depends on which problem associated with solid wastes we choose to approach. For example, if the theme selected is the employment of waste pickers, no particular institutional changes are deemed necessary. Yet when it comes to recycling promotion, the achievement of greater social impact will likely be in sight when project implementation is in line with some institutional changes.

They would like to know (2) Solid waste related precedents. DI has commented that despite no precedent on the area of solid waste, there are precedents of SIBs with the theme of employment support across the globe, which could serve as reference for employability support programs for waste pickers.

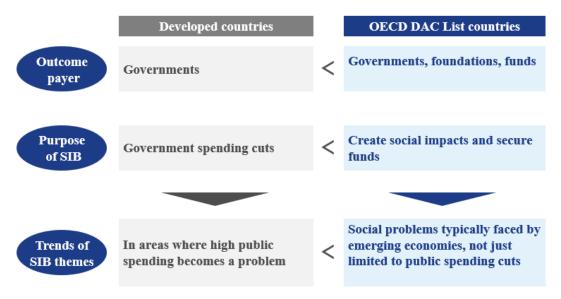
In addition, they also would like to understand about (3) Development process of SIB scheme. DI has commented that the first step is to identify problems to be addressed with clear solutions and set KPIs for the programs, then structure a SIB scheme, identify stakeholders, and detail financial aspects of business. 8. Summary:

8-1 Significance of SIBs in LAC recognized through this study

This study confirms the potential of SIBs as an innovative financing approach to maximize social impact generated in LAC, mainly in the following 3 perspectives.

(1) Potential contribution in social impact maximization in OECD DAC List countries SIB scheme evidently has played an important part in social problem-solving in OECD DAC List countries. The main purpose of SIB scheme in developed countries is to reduce government spending, while OECD DAC List countries go further than just public cost savings by generating positive social impact.

The differences between developed and OECD DAC List Countries in SIB trend



• Figure 75: SIB differences in developed and OECD DAC List countries (also Figure 26)

(2) Benefit for local governments

SIB programs are expected to bring significant benefits to local governments. In fact, both of the Colombian and Peruvian counterparts have shown a high level of interest in SIBs.

Enhanced efficiency is the first important gain of SIBs. Outsourcing and contracting with the private sector will allow more flexibility in service delivery, thus enabling a more effective use of available capital. An outcomes-based payment scheme will provide an incentive for service providers and investors to produce better outcomes and strengthen governance. The second potential benefit is removing barriers to innovative solution adoption, including partnership opportunities with startups. An all-inclusive outsourcing contract with the private sector will allow more flexibility in social service delivery for startups and other stakeholders to implement various innovative solutions they have to offer. The outcomes-based model will reduce risks for outcome payers when innovative solutions are adopted. Last but not least, private-sector funds in SIB schemes can be used to scale up projects. SIB programs can secure large amounts of long-term privatesector funds to deliver social services on a larger scale.

Benefits of SIB schemes for local governments

| (1) Enhanced implementation effectiveness | All-inclusive outsourcing to the private sector (PFI) allows greater flexibility in service delivery, thus enabling more effective use of budget Pay-for-success scheme (PFS) provide an incentive for service providers and investors to create better outcomes, resulting in strengthened governance |
|---|---|
| (2) Adoption of innovative solutions (partnership with SUs) | All-inclusive contracting to the private sector (PFI) allows greater flexibility in service delivery, thus enabling the adoption of innovative solutions offered by SUs & other stakeholders Pay-for-success scheme (PFS) reduces risks for outcome payers when adopting innovative solutions |
| (3) Larger project scale with private finance mobilization | • As the SIB scheme gets funding from the private sector, it can secure large amounts of long-term funds to deliver social services on a larger scale |

• Figure 76: Benefits of SIB schemes for local governments

(3) Geopolitical advantage of LAC

For SIB programs in LAC, a major point for consideration is that LACs have more favorable foundation for the development of SIB initiatives than other regions. Due to the complexity of SIB implementation, both governments and private sectors need to have necessary execution capabilities. LACs, with relatively advanced economic development and maturity among OECD DAC List countries, are believed to have enormous potential for innovative models like SIB. Also, an additional important point to note is that SIB precedents have been established by IDB Lab, meaning that the ecosystem is already under development with cumulative knowledge generated to a certain degree. Finally, another advantageous aspect of the region is their shared language, culture, and social issues, making it easier to spread the knowledge gained in one country to other countries in the region.

Furthermore, the consideration and implementation of SIB programs in LAC could have even greater significance for international development agencies like JICA, from the following 3 standpoints.

(1) New form of non-ODA development assistance

In LAC where there will be more countries graduating from ODA, it is necessary to explore other forms of non-ODA development assistance from the perspective of maintaining continuous bilateral relationship between Japan and countries in the region. SIB establishment support from local governments could be a promising option to realize this objective. Also, it is vital that JICA takes a broader view to consider how to integrate impact finance related framework with PFS and other outcomes-based mechanisms as a new public-private partnership scheme for social good with greater impact.

(2) Collaboration between IDB Lab and JICA

Over the course of the planning process, being able to collaborate closely with IDB Lab, both as a pioneer in innovative financing schemes such as SIB in LAC and JICA's indispensable partner in multidimensional context, would offer various useful insights and hold so much value to JICA.

(3) Knowledge and expertise transfer from Japan

Japan's SIB-related initiatives have been accelerated, uniquely with a particular focus

on the adoption of innovative solutions service providers, provided by social including technology Those startups. knowledge and expertise accumulated in SIB related initiatives, in combination with JICA's expansive network in private sector in Japan, could be a solid foundation for a complementary relationship with stakeholders such as IDB Lab and Instiglio - those who are highly experienced in establishing SIB programs in the region. More evolutionary progress and incremental development assistance value as Japan can be expected as both parties work together to structure SIB deals.

In summary, it is highly recommended that JICA consider structuring SIB deals by addressing the needs of Colombian and Peruvian local governments in ways that generate social impact in LAC through innovative initiatives, e.g., SIB programs designed for the two countries based on research findings and insights from this study. Also, this could be very meaningful first step for JICA to explore new assistance frameworks in LAC in general.

8-2 Proposed process for SIB program development

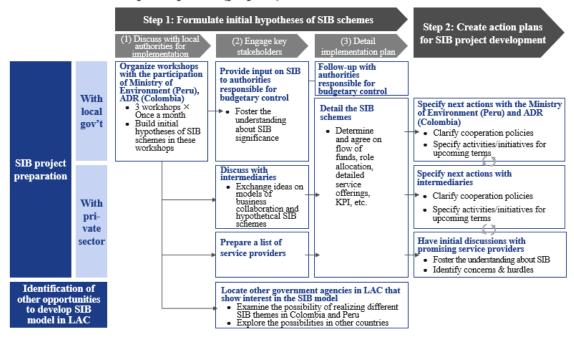
This study has confirmed the needs of Peruvian and Colombian governments with respect to SIBs and it is our proposal that we establish a SIB program in two main steps.

In the first step, the Japanese government will lead the formulation of initial hypotheses around possible SIB/PFS schemes in discussions with relevant municipal governments, intermediaries, and service providers. Each of these projects needs to be so tailor-made that it is essential to develop an in-depth understanding of SIB schemes, reach an agreement on shared goals and role allocation among stakeholders, as well as to foster ownership of SIB development in each organization. In fact, the Peruvian and Colombian governments have indicated that further progress toward the establishment of SIBs will require a more in-depth understanding of SIB mechanism. The governments also desire further discussions about feasible schemes, including the formulation of initial hypotheses on stakeholders and their role allocation, fund flow, concretized services, expected social impact, and KPIs necessary for constant measurement and evaluation.

In the second step, project owner (i.e., local organizations) will take the lead in developing a concrete scheme and action plans detailing activities of each project stakeholder in alignment with the initial hypotheses. Japan will also provide necessary support for this process.

See the following figure for details of each step as our proposal.

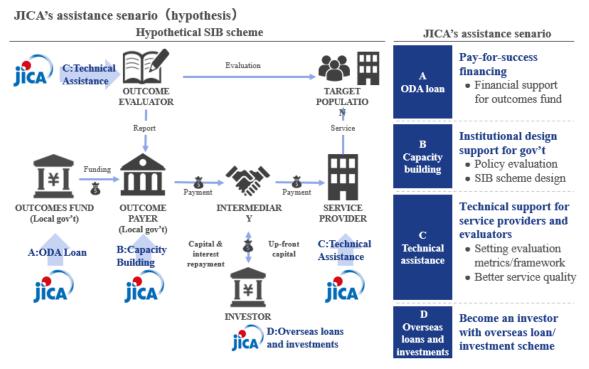




• Figure 77: Details of SIB development process (proposal)

8-3 JICA's possible cooperation scenarios for SIB project implementation

There are four possible scenarios that combine with the existing assistance menu of JICA for cooperation with other stakeholders to deliver a SIB project. First, JICA could provide outcomes-based funding to local governments or provide financial assistance for them to establish an outcome fund with international ODA loans. Second, JICA may provide capacity building assistance with regard to institutional design for SIB implementation. Besides SIB scheme and SIB-related institutional design, JICA could also provide support in historical policy evaluations and institutional design for each theme of choice. Third, JICA could choose to provide technical assistance with service providers and evaluators to improve service quality and develop evaluation metrics and framework to measure service performance. Lastly, JICA could become an investor using overseas investment and loan scheme. The following figure summarizes the 4 possible options of SIB-related assistance for JICA to consider in LACs.



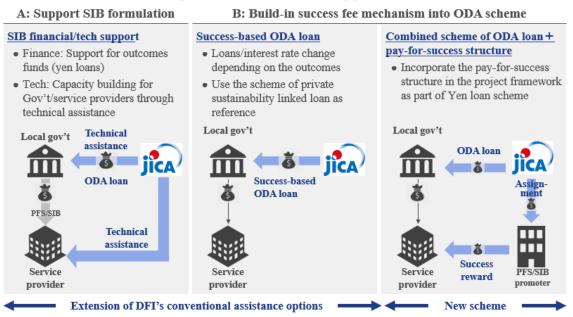
• Figure 78: JICA's assistance scenarios (hypothesis)

It is also important to note that the SIB scheme is just one of the outcomes-based assistance options serving as a starting point for JICA to consider potential ways to incorporate the outcomes-based approach into traditional protocols. There are 3 main options for JICA to employ this new approach: 1) To provide assistance for the establishment of SIB programs in the region, 2) To provide performance-based ODA loans and 3) To combine schemes of ODA loan and PFS.

As for 2), loan amount and interest rates will vary depending on program performance, which is similar to sustainability-linked loan schemes of the private sector for example. However, as the current system does not allow the incorporation of performance-based payment scheme into ODA loans, system modification for actual implementation will be required,

As for 3), JICA can act as an outcome payer and pays service providers based on the achievement of expected outcomes within a scheme where outcomes-based payment is made using consulting fees of ODA loan projects, or a scheme where separate research projects are to be established and linked with these ODA loan-funded projects. See the following figure for further details.

Initial hypothesis of the ways of JICA to incorporate pay-for-success model into conventional assistance options with a SIB as a starting point



• Figure 79: Initial hypothesis of the ways of JICA to incorporate pay-for-success model into conventional assistance options with a SIB as a starting point

9. Reference list

Ichiro, Tsukamoto & Kaneko Ikuyo (Eds.), Social Innovation through Impact Investments: Opportunities and Challenges of Social Impact Bonds, 2016

The Center for Universal Education at Brookings, "IMPACT BONDS IN DEVELOPING COUNTRIES: Early Learnings from the Field", 2017

Social Finance," Impact Bond Global Database", https://sibdatabase.socialfinance.org.uk/, February 2021

Social Finance Website, https://www.socialfinance.org.uk/, February 2021

Government Outcomes Lab, "Impact Bond Dataset V1 (Archived September 2020)"

Alex Nicholls, Oxford University, "The Landscape of Social Investment in the U.K.", 2016

"New firm to Prepare Ground for Social Investment Bank", Third sector, 21 April 2008

SOCIAL INVESTMENT TASK FORCE, "Social Investment Ten Years On", 2010

Bridge fund management website, https://www.bridgesfundmanagement.com/, February 2021

Mitsubishi UFJ Research and Consulting Co., Ltd., "Research study on the Actual Situation

of Performance-Based Private Sector Subcontracts in Japan: A Review of Precedents in Japan", 2019

Katsuyuki Nakagawauchi, "The Start of Social Impact Bonds – A New Scheme of Outcomes-Based Public-Private Partnerships"

Nikkei Global No.347, 3 September 2018

METI, "Basic method of Japanese version health care SIB",2016

"Higashiomi City SIB project outline",

https://www8.cao.go.jp/pfs/jirei/higashioumi01.pdf,2020

Palladium, "Design Grant Case Study; The Utkrisht Impact Bond", 2018

Alma Agusti Strid, Ecorys,"Cameroon Cataract Bond: A case study produced as part of the Cameroon Cataract Bond Evaluation

John Belt, Andrey Kukeshov, and Eline Minneboo, "Development Impact Bonds: Learning from the Asháninka Cocoa and Coffee Case in Peru", 2017

Ternent, Christine, IDB Lab, "Social Impact Bonds in Latin America: IDB Lab's Pioneering Work in the Region: Lessons Learnt", 2021

SIBs.CO, "Results from the Learning Agenda First Social Impact Bond in an Emerging Country", 2020

Pamela Varley, Dan Levy, Harvard Kennedy School, "Devil in the Details: Designing a Social Impact Bond Agreement in Medellin", 2015

PricewaterhouseCoopers Aarata LLC, "Overseas Survey on Financing Activities

Contributing to Improved Social Outcomes", 2018

Fernando L. Cássio," Education Policy Analysis Archives", 26:130, 2018

Sergio G. Lazzarini," Education Policy Analysis Archives", 28:112,2020

Carolina Ruiz, Ethos Laboratorio de Políticas Públicas, "El BIS mexicano: de la promesa de innovación a la frustración en su implementación", 2019

Government Outcomes Lab, "Colombia Workforce Development Social Impact Bond – Empleando Futuro", 2019

Instiglio Website, https://www.instiglio.org/, February 2021