

Maximizing Finance for Development

Impact Bonds for Water and Sanitation in Latin America and the Caribbean



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Executive Summary

When it comes to safe water supply, sanitation, and hygiene (WASH), the United Nations observes that, globally, billions still do not enjoy the provision of adequate services. Achieving universal access to even basic sanitation service by 2030 would require doubling the current annual rate of progress. This situation is exacerbated by the ongoing, interconnected global crises induced by climate change and COVID-19, as WASH services are central to the response and corresponding economic recovery.

While the region of Latin America and the Caribbean has enjoyed great improvements in access to improved water and sanitation services, it suffers from multiple inequalities that render the achievement of Sustainable Development Goal (SDG) 6—to “ensure availability and sustainable management of water and sanitation for all” by 2030—challenging in many ways. The region is making slow progress in addressing the situation of those without access to water and sanitation, or with access to only limited or deficient services. For instance, in 2015, while 75 percent of the population in the region used safely managed facilities for drinking water, in 2020, that percentage remained virtually unchanged. Even as the share of households accessing safely managed sanitation increased between 2015 and 2020, both percentages are remarkably low, at 28 percent and 34 percent, respectively. Moreover, 18 million people in the region were still practicing open defecation in 2015, and close to 14.5 million were doing so in 2020.

Positive trends do not fully capture the profound inequalities that exist in the region, among income groups, across genders, and between urban and rural areas. Divides in access to water and sanitation services are peculiarly manifest at the cross-country level but inequality in the WSS sector also exists within countries, and particularly between rural and urban areas.

Significant gaps in access to WASH services are also based on socioeconomic status: sanitation and drinking water coverage is considerably lower among the poorest in many countries throughout Latin America and the Caribbean.

In 2017, the World Bank Group committed to intensify and systemize its commitment to maximizing finance for development (MFD). This approach can be implemented to close the financing gap in the water and sanitation sector in Latin America and the Caribbean, and thus help the region get closer to achieving SDG 6, particularly if emphasis is put on innovative financing.

In fact, to deal with the financing gap toward the achievement of the SDGs in general and SDG 6 in particular, an increasing number of countries are adopting innovative solutions for optimal use and maximization of financial resources destined to expand, upgrade, and preserve the quality of services and infrastructure. Many countries are adopting results-based financing to link the resources being used to specific milestones of coverage expansion. Impact bonds are being issued by countries to establish results-based financing, while promoting an innovative model of public-private blended finance that

has the potential to accelerate the expansion of safely managed water supply and sanitation service coverage and comply with the MFD criteria, and ultimately help the region achieve SDG 6. These types of financial instruments establish sustainability parameters for the SDGs, based on consideration of changing environmental conditions and their interactions with business and societal expectations and outcomes.

Specifically, impact bonds are financing vehicles that harness private capital and expertise for efficient, high-impact service delivery. While they are called “bonds” in English, these instruments are structured as a contract between several parties. Their name in French may come closer to describing their nature: *contrats à impact social* (“social impact contracts”). Impact bonds enable payment-by-results models to draw private capital to prefinance projects that address critical needs. In short, these instruments function along the following lines: at the start of a project, a performance-based contract that employs private finance provided by investors will cover the up-front cost of the project/program delivered by the service provider. Results are independently monitored and verified, and, upon successful delivery of the prespecified outcomes, the party issuing the contract reimburses the investors for the cost of the service, plus a return. Impact bonds can inject a more entrepreneurial approach into public service provision. By focusing on outcomes rather than activities, service providers are offered more latitude in the way they deliver services. In turn, this can generate new business opportunities that had remained previously untapped.

Impact bonds also lead to service providers offering their know-how, their experience, and a culture of innovation, and bringing a results-focused approach to the problem-solving process. And finally, impact bonds have a solid record of attracting financing for prevention-oriented services. Pricing strategies are key to the development of impact bonds and vary according to diverse factors, including the specific context in which an impact bond is developed, the nature of the negotiation process, and the contracting model. Payment levels should, however, be fair for all parties: payments must be high enough to be commercially viable and low enough to avoid windfall profits for investors and welfare losses for taxpayers.

Impact bonds can help service providers borrow and invest to expand services and improve their quality. This is especially important for Latin America and the Caribbean, which is far from being a major beneficiary of official financing for water. In fact, impact bonds have been experimented with in other sectors in the region, and water and sanitation services could benefit from these experiences, as well as those in other regions of the world.

As stakeholders across the region assess the potential of impact bonds for the development of the sector, the following policy recommendations can help them navigate this new landscape:

1. Ensuring that financing gaps across the region are **(i) properly identified** and **(ii) addressed appropriately to achieve SDG 6** should be a key imperative for stakeholders in Latin America and the Caribbean. In particular, market scoping—that is, a clear identification of the needs, challenges, as well as opportunities for investments in the water and sanitation sector across countries in the region—will be key to:

- Reducing risk and uncertainty for investors;
 - Identifying potential for governments, donors, and nongovernmental organizations;
 - Establishing a balanced contract between the latter and service providers; and
 - Adequately pricing the returns.
2. Before deciding to scale up these new tools, **policy makers in Latin America and the Caribbean will benefit from testing them through pilot projects.** This is crucial as there have not been enough completed or mature transactions to fully assess their contributions to MFD (World Bank Group 2019a). Given the maturity of some economies over other, poorer, ones in the region, it will be important to differentiate between opportunities for the use of impact bonds in countries that are funded by the International Bank of Reconstruction and Development and the International Development Association in the region.
 3. **The regulatory framework and public policy environment must be adapted** to provide transparency and clarity for key stakeholders involved in the implementation of impact bonds.
 4. **Key elements in the successful delivery** of impact bonds include: having a short- to medium-term horizon (three to six years); a **minimal, attractive financial size**; simple and understandable indicators; an **operational and independent capacity to measure results**; thorough research on the project; a basic set of governance principles; and mechanisms that anticipate the follow-up phase once the project is closed, and document avoided costs (Haut-Commissariat à l’Economie Sociale et Solidaire et à l’Innovation Sociale 2019). Efforts to address the uncertainties and risks posed by macroeconomic and financial systems (**black swans**), uncertainties due to climate change and ecosystem damages that require regenerative production systems (**green swans**), and water security risks that require diligent global, regional, and country actions for maintaining water quality and sustainability (**blue swans**) could be embedded in the impact bond instruments.
 5. Finally, **solid monitoring and evaluation frameworks and capabilities will need to be independent in environments where data collection is a challenge.**



Abbreviations

DIB	development impact bond
EIB	environmental impact bond
ESG	environmental, social, and governance
GDP	gross domestic product
GIIN	Global Impact Investing Network
IFC	International Finance Corporation
MFD	maximizing finance for development
OBA	output-based aid
OECD	Organisation for Economic Co-operation and Development
RBF	results-based financing
SIB	social impact bond
SDG	Sustainable Development Goal
UNDP	United Nations Development Programme
UNICEF	United Nations Children’s Fund
WASH	water supply, sanitation, and hygiene
WHO	World Health Organization
WSS	water supply and sanitation

Chapter 1. Introduction

According to the World Bank, to fill the financing gap—the difference between the estimated \$3.9 trillion needed for developing countries to achieve the Sustainable Development Goals (SDGs) by 2030 and the \$1.4 trillion being invested in development—many countries have increasingly adopted results-based financing (RBF) as an innovative and effective approach to funding infrastructure and services (World Bank 2019a). This approach has risen to the challenge in the past decade, growing to a market of over \$25 billion in development spending. SDG financing must align with two core principles affecting the issuance of impact bonds, other instruments like SDG bonds, and so on: sustainability and equality.

Since the early 2000s, the Global Partnership for Results-Based Approaches has tested RBF, with a focus on output-based aid (OBA) in various sectors and regions across the world. In 2017, the World Bank Group vowed to intensify and systemize its commitment to maximizing finance for development (MFD). The MFD approach can be implemented to close the financing gap in the water and sanitation sector in Latin America and the Caribbean, helping the region in getting closer to achieving SDG 6, particularly if emphasis is put on innovative financing, and linking SDG financing principles.

In this overall context, impact bonds¹ are some of the latest tools made available in the RBF area. First launched a decade ago in the United Kingdom, impact bonds are now deployed in over 30 countries to attract financing and to stimulate social innovation while focusing on results. Given the need for increased private capital to fill the funding gap in achieving SDG 6 in Latin America and the Caribbean, this report explores why and how impact bonds could be extended to that region's water and sanitation sector. While not a silver bullet to the structural problems in the sector, it could be a useful addition to the array of RBF tools that have burgeoned since the early 2000s. The size and efficiency of financing markets (demand and supply) for the water and sanitation sector are fundamental in enabling the maximization of finance. On the supply side, the instruments and features of funding sources are the main focus of this analysis. However, it is noteworthy that the demand-side enabling factors, such as the creditworthiness of borrowers (e.g., utilities), are as important as supply-side issues for the efficient allocation of funding to the sector.

On the supply side, impact bonds can inject a more entrepreneurial approach into public service provision. By focusing on outcomes rather than activities, service providers are offered more latitude in the way they deliver services. Meanwhile, by paying only for successful outcomes, governments can free fiscal resources that might have been otherwise allocated inefficiently, and they can transfer the risks of innovation to service providers, incentivizing performance throughout the process (box 1.1).

Through a review of the most recent studies and research on the matter, this document explores the challenges faced by Latin America and the Caribbean in financing the development of its water and sanitation sector and its need for new instruments. It provides insights on impact bonds as one of the latest innovations in the field of RBF. Limitations of the evaluation include the fact that the instrument is rather young.

BOX 1.1 Impact Bonds Are Not Traditional Bonds

Social/development impact bonds are pay-for-success contracts involving several parties that are typically an investor, provider, and payer but that can also include guarantor(s) and/or intermediary(ies) in more sophisticated structures involving some form of guarantee and/or multiple levels of actors. The contract is very specific—investors get paid back the principal and a return only if specific successes are met. Impact bonds could: (1) encourage efficiency/innovation, (2) introduce the sector/industry to investors, (3) reallocate some or all of the risks of failure to private investors (who make their appropriate returns for taking the risk), and (4) leverage private investment in the sector.

Green bonds, climate bonds, Sustainable Development Goal (SDG) bonds, and so on, are more traditional fixed-income debt securities, issued to raise financing for projects, corporations, governments, and so on. In the case of green/climate/SDG bonds, the proceeds raised are invested in green/climate/SDG-related projects. These bonds are more straightforward vehicles to raise private financing for projects and are managed by bond managers who maintain certain standards (ethical, transparency, environmental, social, governance, etc.). Therefore, they attract certain types of investors who are interested in “impact investing”; these may include traditional investors; environmental, social, and governance investors; and impact investors.

Development impact bonds and social impact bonds can be differentiated only by the type of payer, that is, the donor or government, respectively. It is also worth noting that the “donor” could be a private corporation, for example, one with corporate social responsibility programs. Thus, development impact bonds can also improve the corporate financial landscape and address sectoral funding needs with socioeconomic and environmental returns in play.

The Brookings Institution has published a series of five policy briefs evaluating the evidence on impact bonds across five dimensions of success, ranging from their growth trajectory to their costs and benefits (Brookings Institution 2020a).

Chapter 1 looks at the challenges faced by Latin America and the Caribbean in achieving SDG 6. Chapter 2 examines the financing gap and how new instruments, and innovative thinking can help tackle it. Chapter 3 explores a new paradigm, the emergence of impact bonds. Chapter 4 closes the loop by looking at how impact bonds can be a useful complement to closing the financing gap. The final chapter offers recommendations for the development of this relatively new instrument.

Lessons already are emerging from the 185 impact bonds deployed around the world as of early 2020 that can inform various stakeholders. This report is destined for a large audience: including decision-makers, social entrepreneurs, financiers, nonprofit organizations, as well as multilateral development banks that want to familiarize themselves with a new instrument from which we can already extract useful knowledge and assess its potential for the development of water supply and sanitation in Latin America.

Note

1. The difference between OBA and impact bonds is that for OBA the prefinancing responsibility is with the service provider. The provider can of course raise this prefinancing requirement from a commercial financing entity/bank, but the bank is typically not directly exposed to the OBA targets (which brings in a different issue—the service provider’s creditworthiness to borrow on its own books).

Chapter 2. Access to Safe Water, Sanitation, and Hygiene for All in Latin America and the Caribbean: Mission Impossible?

The Status of Sustainable Development Goal 6

In 2015, with the adoption of the 2030 Agenda for Sustainable Development, the United Nations set clear targets to ensure that the world would take an ambitious path toward the elimination of poverty and the creation of shared prosperity. Among the various SDGs, the sixth one is instrumental to the water and sanitation sector in that it seeks to “ensure availability and sustainable management of water and sanitation for all.”

A precedent has certainly been established in recognizing water and sanitation as vital to the development and prosperity of all human beings. A few years before the adoption of the SDGs, Resolution 64/292, adopted on July 28, 2010, by the United Nations General Assembly, recognized the right to safe and clean drinking water and sanitation as a human right that is essential for the full enjoyment of life and all human rights. It called upon states and international organizations to provide financial resources, capacity building, and technology transfer, through international assistance and cooperation, particularly to developing countries, to scale up efforts to provide safe, clean, accessible, and affordable drinking water and sanitation for all.

Box 2.1 outlines key markers of progress to date.

BOX 2.1 Global Progress toward Sustainable Development Goals Relevant to Water and Sanitation

Since 2015, progress has been made worldwide toward the achievement of the SDGs, but at an insufficient pace and in an uneven manner. In a 2019 report, the United Nations noted that “progress has been slow on many Sustainable Development Goals, that the most vulnerable people and countries continue to suffer the most and that the global response thus far has not been ambitious enough” (United Nations Economic and Social Council 2019).

In fact, when it comes to safe water supply, sanitation, and hygiene, the United Nations observes that billions across the planet still do not enjoy these services: “Data suggests that achieving universal access to even basic sanitation services by 2030 would require doubling the current annual rate of progress.” It also states that more efficient use and management of water is critical to addressing the growing demand for water, threats to water security, and the increasing frequency and severity of droughts and floods resulting from climate change.

More alarmingly, the United Nations notes that, as of 2019, “most countries are unlikely to reach full implementation of integrated water resources management by 2030.” Data on the matter support this prediction. According to the United Nations (2019):

(continued)

BOX 2.1 Continued

- Globally, the proportion of population using safely managed drinking water services increased from 61 to 71 per cent between 2000 and 2015 and remained unchanged in 2017. An additional 19 per cent of the global population used basic drinking water services. This means that 785 million people still lacked even a basic drinking water service.
- The global population using safely managed sanitation services increased from 28 per cent in 2000 to 43 per cent in 2015 and to 45 per cent in 2017, with the greatest increases occurring in Latin America and the Caribbean, sub-Saharan Africa and East and South-East Asia. Between 2000 and 2017, the proportion lacking even a basic sanitation service decreased from 44 to 27 per cent, yet 701 million people still practiced open defecation in 2017.
- In 2017, some 60 per cent of people worldwide and only 38 per cent in least developed countries had a basic handwashing facility with soap and water at home, leaving an estimated 3 billion people without basic handwashing facilities at home.
- In 2016, one third of all primary schools lacked basic drinking water, sanitation and hygiene services, affecting the education of millions of schoolchildren, but particularly girls managing menstruation, and one in four health-care facilities worldwide lacked basic water services, affecting more than 2 billion people.
- Approximately one third of countries have medium or high levels of water stress. Almost all countries that have registered high water stress are located in North Africa and West Asia or in Central and South Asia, and these levels indicate serious water difficulties in the supply of freshwater, at least during parts of the year.
- Of 172 countries, 80 per cent have medium-low implementation or better of integrated water resources management. However, 60 per cent of countries are unlikely to reach the target of full implementation by 2030.
- A significant effort is needed to ensure that cooperation is operational in all transboundary basins. According to data from 67 of 153 countries that share transboundary waters, the average percentage of national transboundary basins covered by an operational arrangement was 59 per cent in the period 2017-2018, with only 17 countries reporting that all their transboundary basins were covered by such arrangements.
- Following several years of steady increases and after reaching \$9 billion in 2016, ODA disbursements to the water sector declined by 2 per cent from 2016 to 2017. However, ODA commitments to the water sector jumped by 36 per cent between 2016 and 2017, indicating a renewed focus by donors on the sector.

Inequalities in Access to Safe Water Supply, Sanitation, and Hygiene across the Region

While Latin America and the Caribbean has enjoyed great improvements in access to improved water and sanitation services, it suffers from multiple inequalities that render the achievement of SDG 6 challenging in many ways.

The World Health Organization and the United Nations Children’s Fund (WHO/UNICEF) Joint Monitoring Programme notes that, in 2015, while 75 percent of the population in the region used a safely managed facility for drinking water, in 2020 that percentage was virtually unchanged. The number households accessing safely managed sanitation increased between 2015 and 2020, though the access rates in both years were very low, at 28 percent and 34 percent, respectively. Moreover, 18 million people in Latin America and the Caribbean still practiced open defecation in 2015, and close to 14.5 million did so in 2020 (UNICEF and WHO 2016, 2021).

Positive numbers also do not fully capture the profound inequalities that exist in the region. Latin America and the Caribbean suffers, among other things, from cross- and within-country regional disparities in well-being outcomes at a given level of gross domestic product (GDP) per capita. While the region is doing better in terms of life expectancy, primary education coverage, social connection, and air quality relative to its level of per capita GDP, violence and income inequality remain relatively high, and informality persists (OECD 2019a).

Such divides are manifest at the cross-country level. For instance, in 2015, 97 percent of the population of Brazil and 98 percent of that of Mexico, the two richest countries in the region, were using at least basic drinking water services, compared to a world average of 88 percent.¹ Meanwhile, Haiti is the poorest country in the Western Hemisphere, with an average per capita income comparable to that of Sub-Saharan Africa’s poorest countries. The country ranks 168th (out of 186 countries) on the Human Development Index (UNDP 2018). Compared with the regional average, access to water supply and sanitation (WSS) in Haiti is low, at 74 percent for water (47 percent in rural areas) and 31 percent for sanitation (16 percent in rural areas).²

Other examples of such differences include Bolivia, where 46 percent of the rural population practiced open defecation in 2015, opposed to 11 percent in neighboring Ecuador (UNICEF and WHO 2016). The updates of the 2020 coverage for these countries indicate that at the present pace they would not be able to achieve the SDG 6 targets by 2030.

Inequality in water supply, sanitation, and hygiene (WASH) also exists between rural and urban environments. The WHO/UNICEF Joint Monitoring Programme (2016) notes that “urban improved sanitation coverage is higher than in rural areas in all three sub-regions and was close to 90% in South America (89%) and Central America and Mexico (87%). Urban sanitation was somewhat lower in the Caribbean and declined slightly between 1990 and 2015.” Similar fractures exist with regard to access to water: “Coverage of piped water is much higher in urban areas of [Latin America and the Caribbean], with

MAP 2.1 Statistics on Access to Water and Sanitation Services in Four Countries



Source: World Bank 2017a.

Note: WASH = water supply, sanitation, and hygiene.

piped water on premises serving over 9 out of 10 urban dwellers in South America and the Caribbean. The use of unimproved drinking water sources in urban areas is uncommon in all three sub-regions but highest in Central America and Mexico (5%)” (UNICEF and WHO 2016). In fact, Mexico, for instance, had a coverage rate of only 43 percent for safely managed drinking water in 2020 (UNICEF and WHO 2021), and other countries saw water coverage rates drop after applying the SDG standards of coverage, for sanitation as well.

Regardless of their level of wealth, countries are suffering from high levels of water pollution. A recent World Bank report notes that “not only does pollution not decline with economic growth, but the range of pollutants tends to expand with prosperity” (Damania et al. 2019). This decline in water quality is of key concern as it affects various sectors and progress toward nearly all SDGs, as long-term costs are underestimated and underappreciated, and associated risks are extremely difficult for developing countries to overcome. In dealing with these problems, policy makers can adopt a passive approach of inaction, a proactive approach of prevention, or a reactive approach that treats contaminants. However, with water scarcity expected to increase as populations grow and the climate changes, inaction appears to be a poor policy choice.

Finally, significant gaps in access to WASH services are based on socioeconomic status. Sanitation and drinking water coverage is considerably lower for the poorest in many countries of the region (UNICEF and WHO 2016). For instance, in 2012, improved sanitation coverage was only 37 percent among the poorest opposed to 82 percent among the richest in rural areas of Colombia, and 54 percent among the poorest opposed to 96 percent among the richest in urban areas. Finally, evidence in Latin America indicates that the poorest 20 percent of households in select countries allocate more than 10 percent of their spending to water (UNDP 2006).

Finding the Right Balance between Affordability and Cost Recovery

As Chen et al. (2016) observe, water and wastewater treatment and delivery are the most capital intensive of all utility services. In countries like the United States, water and wastewater prices have consistently increased, as indicated by the Consumer Price Index between 2000 and 2014 nationwide, as well as within each census region (box 2.2). These sharp rate increases are likely to continue in the foreseeable future. As noted by the authors, however, financially sustainable rates must (1) enable a utility to recover expenditures through revenues, and (2) be affordable to consumers so they can continue to support utility infrastructure. Underpricing can lead to financial difficulties for the utility and overconsumption by the consumer; overpricing can result in water bills that can cause hardships to some consumers.

It is all the more problematic that factors that can affect WASH services, such as climate change in general and droughts in particular, are likely to hinder the provision of such services and lead utilities to seek new sources of water, in turn driving prices upward. The International Finance Corporation (IFC) has observed that increased water stress from urbanization, climate change, and agricultural/industrial use will continue to widen the gap between available supply and demand. In this context, and to achieve the SDG 6 targets for water by 2030, annual investments need to increase by \$150 billion to \$410 billion per annum. According to the IFC (2018), this gap can only be filled by leveraging both municipal and private financing sources. And there are also region-specific challenges. For instance, Latin America and the Caribbean has a highly fragmented market, with many small players—both public and private—that lack sufficient scale. On the other hand, according to Ha, Kose, and Ohnsorge (2019), the region, which once suffered from high inflation, has seen disinflation—a decline in inflation rates—in line with global trends, including in emerging and developing countries. High inflation is often associated with lower

BOX 2.2 Affordability Is a Key Concern Even in Rich Economies

In advanced economies too, affordability has become a key concern. In the United States, for example, according to the *Wall Street Journal* (Harrison, 2018), “water bills are surging nationwide as utilities try to fix corroded pipes and overflowing sewer systems, leaving many households struggling to pay and in some cases risking shutoffs and home foreclosures.”

“Bills started rising significantly faster than inflation in the mid-2000s as communities stepped up their repairs of aging water and sewer infrastructure. Over the past decade, the increases have averaged 5.5% a year, more than three times the rate of inflation, according to the Labor Department.” (Harrison, 2018)

“The country needs to spend \$655 billion over the next 20 years to upgrade water and sewer systems, the EPA estimates. Around 240,000 water mains break a year, contributing to \$2.6 billion in lost drinking water, according to the agency.” “For decades, water companies put off making repairs to keep prices low, creating public expectations of cheap water, said Jonathan Cuppett, research manager at the Water Research Foundation, an industry research group.” (Harrison, 2018)

“Most Americans get their water from one of the 52,000 municipal water utilities in the country. Some are government agencies, others are independent, public agencies. About 15% of customers get their water from private operators, according to Manuel Teodoro, a political scientist at Texas A&M University.” “Most of the typical household water bill reflects the amount of water consumed. The rest covers fixed costs such as meter reading, billing, infrastructure and environmental fees.” “Utilities’ funding comes almost entirely from their customers, with the U.S. government providing just about 4% of the total.” (Harrison, 2018)

Source: Abstracts from Harrison (2018).

growth and financial crises and can disproportionately affect the poor. In contrast, “low and stable inflation has been associated with better growth and development outcomes, financial stability, and poverty reduction” (Ha, Kose, and Ohnsorge 2019). In this regard, and so long as this trend persists, the delivery of WASH services should not be affected by a consistent increase in rates.

The Case for Expanding Access to Water and Sanitation for All

According to Guy Hutton (2012), key benefits of expanding WSS coverage to all include the economic value of time and health as well as other social, environmental, and broader economic impacts that will accrue to society from improved WSS services—an argument that should be used to raise funding from multiple sources (governments, households, and, ultimately, the private sector). But there are other aspects that must be considered when advocating for universal access to WASH. For instance, according to Velleman et al. (2014), WASH may affect maternal and newborn health.

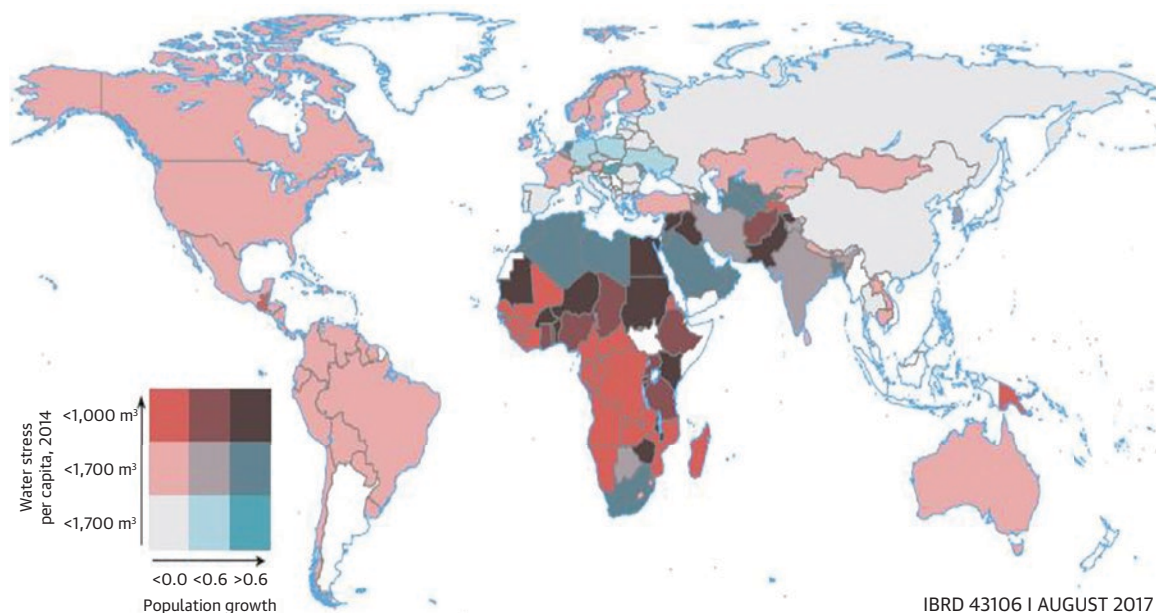
Moreover, as Latin America develops, so does urbanization and the economy, exerting greater pressure on WASH service providers (Sakho and Aguero 2019). Far from receding, demand for WASH services is

likely to increase across the region. In Central America alone, it is expected that in the next generation, 70 percent of the population will live in cities, compared to the current 59 percent, making increased access to WSS services an urgent challenge to be dealt with. Adequate infrastructure and institutional capacity building to ensure that investments are made efficiently are some key areas where action is needed in different sectors and at various levels (including through decentralization, regional coordination, private sector participation, and international cooperation).

Recent reports detail other challenges behind WASH trends in Latin America and the Caribbean, including tariff design, service quality, the financial health of the sector, and governance issues related to a lack of coordination between the regulation and management of the sector (Bertoméu-Sánchez and Serebrisky 2018). As noted above, climate and demographic changes are also likely to increase water-related shocks and scarcity (IFC 2018). The impacts of climate change will be channeled primarily through the water cycle, with large and uneven consequences across the globe. These will be felt disproportionately by the poor, who are more likely to rely on rainfed agriculture, live on marginal lands most prone to floods, use contaminated water, and have inadequate sanitation. Many places projected to see the greatest population growth are also expected to suffer the greatest water scarcity (map 2.2).

Between 2003 and 2013, nearly 100 million people in Latin America and the Caribbean climbed the social and economic ladder to join the middle class (World Bank 2015). This implies increased demand for improved public services, including in the WSS sector.

MAP 2.2 Per Capita Water Availability and Population Growth, 2050



Source: World Bank 2017b.

Collecting precise data on WASH is as much an imperative as a challenge. According to Bain et al. (2018), many countries have started to localize global SDG targets and are investing in data collection to address the SDG data gaps, whether through the integration of new elements in household surveys or by strengthening collection and reporting of information through administrative and regulatory systems. As far as monitoring household WASH in the SDG era is concerned, key priorities include (1) localizing SDG targets, aligning monitoring systems, and addressing data gaps; and (2) integrated analysis at regional and global levels. Decision-makers in Latin America and the Caribbean must expand their ability to monitor and evaluate data in the WSS sector. As chapter 4 will show, strengthening data collection capability is a priority in the context of RBF.

Notes

1. Data are available on the World Bank website: <https://data.worldbank.org/indicator/SH.H2O.BASW.ZS>.
2. UNICEF/WHO Joint Monitoring Programme, 2012. According to this source, access to improved drinking water sources and sanitation facilities in the Latin America and the Caribbean region averages 94 and 82 percent, respectively.

Chapter 3. Financing the SDGs: An Imperative as Much as a Bottleneck

Addressing the Financing Gap

According to Kharas and McArthur (2019), globally, governments in 2015 were already spending approximately \$21 trillion per year on SDG-related sectors, that is, health, education, agriculture, social protection, infrastructure, justice, and conservation. All else equal, this will most likely reach \$33 trillion per year in 2030. The authors note, however, that the majority of current global SDG spending is taking place in high-income countries, a reality that says little “about financing adequacy in lower-income countries.” While, according to the authors, a majority of the SDG spending growth between now and 2030 is likely to happen in fast-growing upper-middle-income countries, this does not offer much information about how the resources will be spent, nor how poorer countries will perform in related sectors.

The authors project an increase in total SDG spending for lower-middle-income countries from around \$780 billion in 2015 to more than \$1.9 trillion in 2030; for low-income countries, this is estimated to grow from \$70 billion in 2015 to \$180 billion in 2030.

This indeed carries important implications for Latin America and the Caribbean, as, going forward, precise data might be missing on the use of resources in the region’s WSS sector. It is possible that low-income countries in the region are likely to follow the trends noted by Kharas and McArthur and will end up among those not spending adequate resources on achieving SDG 6. Concurrently, ensuring that financing gaps across the region are (1) properly identified and (2) addressed accordingly to achieve SDG 6 should be a key imperative for stakeholders in Latin America and the Caribbean.

Furthermore, according to Arroyo, Ballesteros, and Mejía (2015),¹ the region needs to spend 0.30 percent of its GDP a year until 2030 to meet water and sanitation needs to maintain access rates in urban areas and improve access rates in rural areas by closing the coverage and quality gaps. The authors also note that spending in the water and sanitation sector in the region has mainly been public.

According to Bertoméu-Sánchez and Serebrisky (2018), new infrastructure put in place to close the coverage and quality gaps directly imply additional maintenance and operating costs, increasing the spending in the water and sanitation sector to above 0.30 percent of GDP and requiring additional efforts to increase the sector’s financing. The authors note that, in a context of governments’ budget constraints, the private sector has a key role to play in the scaling up of this effort in the region.

The Case for Maximizing Finance for Water and Sanitation in Latin America and the Caribbean

In recent years, numerous reports have highlighted the need to increase investments in the sectors pertaining to the SDGs. For one, the 2015 Development Committee meeting Paper, *From Billions to Trillions: Transforming Development Finance* (AfDB et al. 2015), highlighted the need to shift focus from “billions” in official development assistance to “trillions” in investments of all kinds, acknowledging that, while

domestic public spending constitutes the largest supply of development resources, the greatest potential for expansion lies with private finance and the engagement of private businesses in the development process. It calls for multilateral development banks to use their financial leverage to intensify assistance for domestic resource mobilization, efficient public spending, and private investment, while improving coordination and alignment at the same time (World Bank Group 2017).

New approaches are also emerging. Studies by the Organisation for Economic Co-operation and Development (OECD) have shown that blended finance has the potential to help bridge the estimated \$2.5 trillion per year investment gap for delivering the SDGs in developing countries (OECD 2018).

According to the Paris-based organization, blended finance generated over \$81 billion toward development goals over the 2012-15 period, and 167 facilities that pool finance for blending were launched by donor governments between 2000 and 2016, with combined commitments of approximately \$31 billion. Additionally, a survey conducted by the OECD Development Assistance Committee demonstrated that most of its member countries (17 out of 23) are participating in some form of blended finance. Such approaches can help catalyze the strengths of both the private and the public sectors in addressing development-related issues that have resisted classic solutions thus far. The organization cautions that, while interest in blending is increasing, the evidence base on blended finance is still quite limited, and blended finance itself is not a “silver bullet” (OECD 2018).

Meanwhile, investors across the world are increasingly eager to show that they are not solely motivated by profits but by social and environmental imperatives as well (IFC 2019). The focus on impact investing is nudged by younger generations that favor such strategies (box 3.3). It is all the more noteworthy that

BOX 3.1 About Blended Finance

Blended finance is defined by the Organisation for Economic Co-operation and Development as *“the strategic use of development finance for the mobilization of additional finance towards sustainable development in developing countries.”*

Source: OECD 2018.

Note: Additional finance is commercial finance that does not have an explicit development purpose and that has not primarily targeted development outcomes in developing countries.

BOX 3.2 About Impact Investing

The International Finance Corporation defines impact investments as *“investments made in companies or organizations with the intent to contribute measurable positive social or environmental impact, alongside a financial return.”* In turn, “investments” refer to debt or equity, as well as the provision of guarantees or risk insurance, which facilitates the provision of debt by a third party.

Source: IFC 2019.

BOX 3.3 About Impact-Linked Finance

According to the Boston Consulting Group, impact-linked finance refers to "*financial solutions for market-based organizations that directly link financial rewards to the achievement of positive social outcomes. [...] Impact-linked finance is based on creating outcomes (as opposed to outputs) and measuring them or proxies thereof wherever feasible, useful, and economically viable as triggers for determining the level of financial rewards to be disbursed.*"

"It shares some of the characteristics of traditional results-based finance approaches, as financial rewards are tied to generated results. However, impact-linked finance puts a more explicit emphasis on actual outcomes for the beneficiaries and on mobilizing private sector capital than traditional results-based finance.

"It is designed to financially reward and scale market-based organizations, while exhibiting a simple structure. Due to its principles, impact-linked finance is different from pay-for-success approaches such as social impact bonds, development impact bonds, and other outcome-based contracts, as these structures primarily focus on financing public services and non-market-based interventions, necessitating more complex contractual frameworks."

Source: Baic et al. 2019.

\$269 trillion—the financial assets held by institutions and households across the world—is potentially available for investment. As the IFC notes, a mere 10 percent of this amount channeled toward investments focused on improving social and environmental outcomes would greatly help bridge the financing gap toward achievement of the SDGs. The IFC also estimates that investor appetite for impact investing is as high as \$26 trillion—\$21 trillion in publicly traded stocks and bonds, and \$5 trillion in private markets involving private equity, nonsovereign private debt, and venture capital; the difficulty consists in transforming this into actual investments.

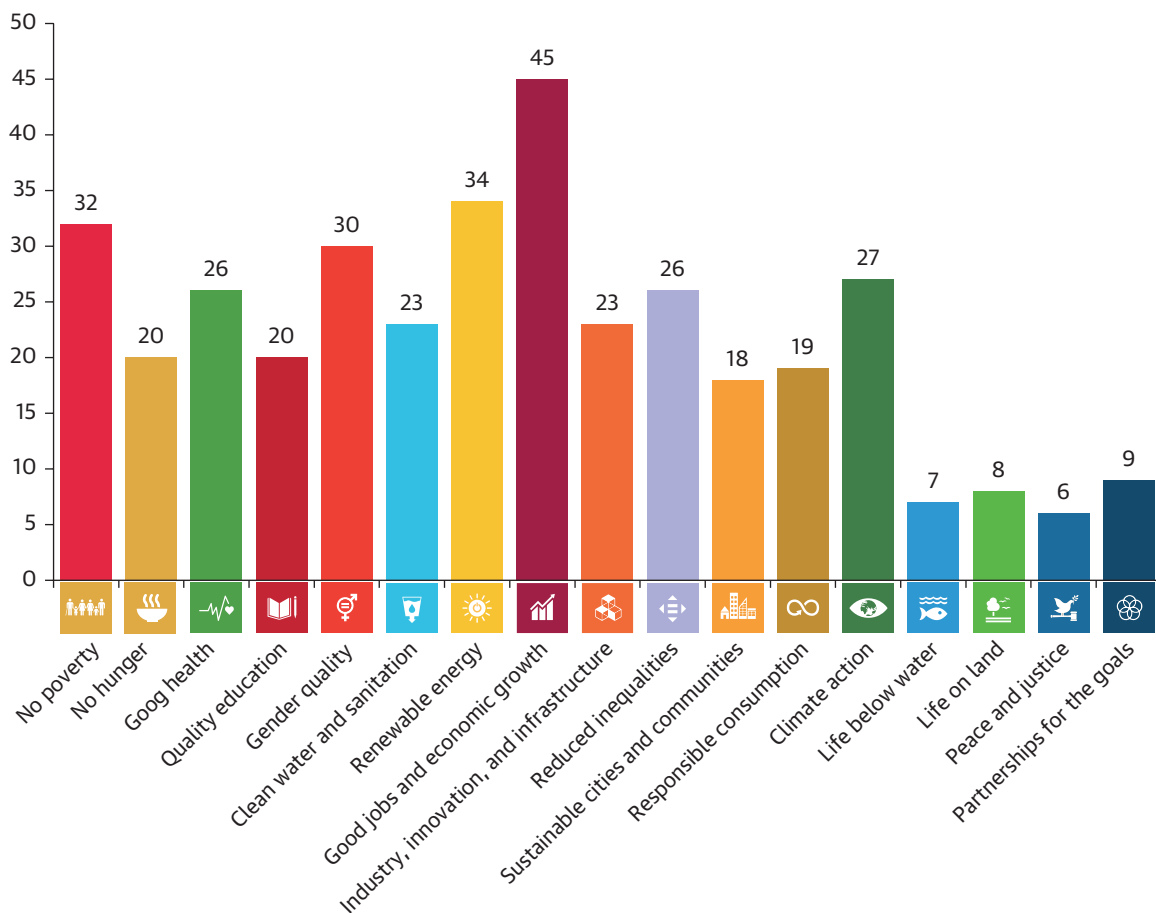
In fact, the IFC identifies four main challenges: (1) continued uncertainty about whether impact investors can earn commercial financial returns in line with nonimpact investors limits the appetite for impact investment; (2) a lack of clarity about how investments are managed to achieve impact gives rise to concerns about “impact washing,” which in turn deters potential investors and threatens the credibility of the industry; (3) limited comparability of measured impact across projects and investment managers poses a challenge to investors who are trying to allocate capital to impact investments; and (4) regulatory frameworks often do not support investment managers who seek to create impact alongside financial returns (IFC 2019). Chapter 6 of this report lists policy responses to these bottlenecks recommended by the IFC.

Furthermore, drawing on the 2030 Sustainable Development Agenda, and expanding on the Hamburg Principles and Ambitions, the World Bank Group committed in 2017 to intensify and systemize its commitment to MFD in a paper prepared for the Development Committee Meeting (World Bank Group 2017).

Building on an approach to favoring private sector solutions whenever possible to limit public debt and contingent liabilities, MFD builds on substantial cross-World Bank Group experience in working with governments to crowd in the private sector in a preferably systematic way to help meet development goals. In fact, the MFD approach has developed in the context of a broader push to crowd-in private sector solutions in collaboration with various partners to help achieve the SDGs.

The MFD approach can help close the financing gap in the water and sanitation sector, driving Latin America and the Caribbean closer to achieving SDG 6, particularly if the emphasis is on innovative

FIGURE 3.1 SDGs for Which Impact Investors Track Performance and Risk Exposure
(\$ billion)



SDG exposure is normalized from 0-1 with 0 being lowest risk (dark green) and 1 being the highest (red)

	SDG 1	SDG 2	SDG 3	SDG 4	SDG 5	SDG 6	SDG 7	SDG 8	SDG 9	SDG 10	SDG 11	SDG 12	SDG 13	SDG 14	SDG 15	SDG 16	SDG 17
All	0.09	0.00	0.19	0.06	0.07	0.47	0.03	0.34	0.38	0.08	0.10	0.39	0.44	0.37	0.56	0.06	1.00
Operations	0.14	0.00	0.23	0.11	0.09	0.45	0.03	0.42	0.53	0.11	0.12	0.45	0.60	0.34	0.49	0.04	1.00
Tier 1 suppliers	0.04	0.00	0.27	0.05	0.02	0.77	0.05	0.39	0.31	0.02	0.15	0.64	0.46	0.65	1.00	0.01	NA

Source: GIIN 2017; Trucost/S&P ratings, 2019.

Note: SDG = Sustainable Development Goal.

financing. The next chapter turns to identifying such new tools. This is all the more important because, despite many escaping poverty since the early 2000s, economic growth and socioeconomic advancement in the region have weakened since 2011, and in turn, insufficient growth and productivity have hampered reduction in income poverty and inequality (OECD 2019a). And while the middle class has expanded in the region, and with it the demand for better-quality public services, this increased demand often remains unmet. Therefore, there is an urgent need to find new approaches to finance services, reduce poverty, address the new aspirations of populations across the region, and contribute to increased prosperity overall.

The impact investing market is growing steadily, with the Global Impact Investing Network (GIIN 2019a) estimating that, as of the end of 2018, over 1,340 organizations managed \$502 billion in impact investing assets worldwide.² According to GIIN, precisely over 800 asset managers account for about 50 percent of industry assets under management, while 31 development finance institutions manage just over a quarter of total industry assets. Most impact investing organizations are relatively small, with about half managing less than \$29 million each; yet, there are also many large players managing over \$1 billion each. And far from the movement receding, new actors keep entering the impact investing market continuously (GIIN 2019a). On average the \$23 billion raised for WASH (SDG 6) is allocated predominantly to developed countries, with investments of \$20 billion on average on assets and asset expansion, followed by public and private equity, and covering of public and private debt. One in five investors in the GIIN survey (GIIN 2019b) stated that they are assessing investment plans for WASH and information and communications technology investments through social impact bonds (SIBs) in emerging markets and developing economies.

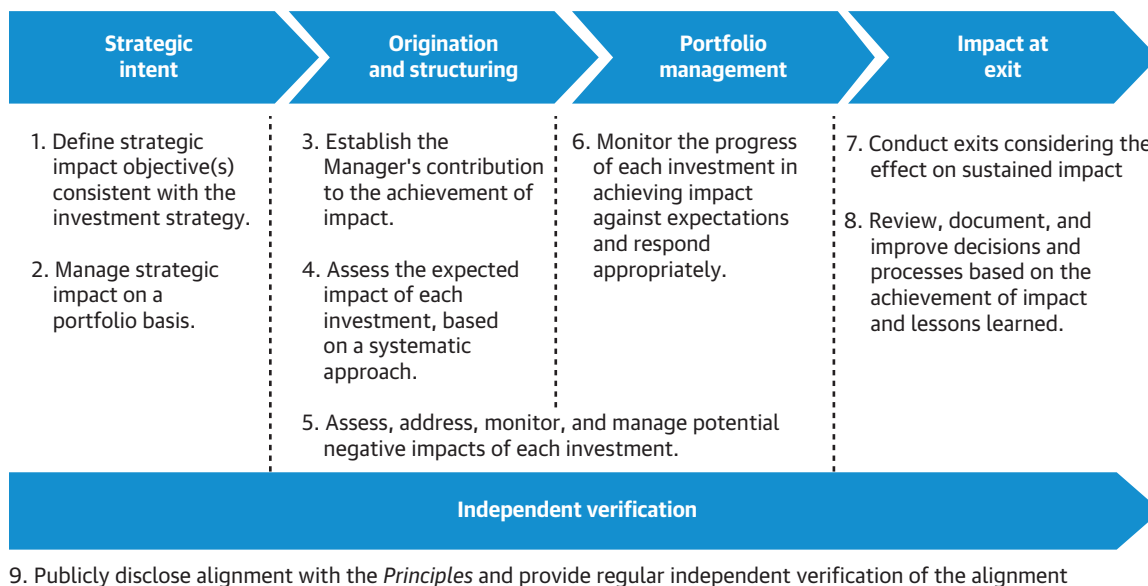
Impact Financing vs Financing Gap in Latin America and the Caribbean

There is reason to hope that impact investing in general can and will help address old challenges that have persisted in contemporary times. By delivering additional resources in a potentially more efficient, innovative, and transparent way, governments and donors can optimize available resources.

While the IFC has identified several bottlenecks that hinder the development of impact investments, it has also listed solutions to address them (figure 3.2). According to the IFC: (1) a new set of operating principles for impact management represents an important step in bringing clarity and discipline to managing investments for impact; (2) the adoption of uniform standards for measurement frameworks and tools will bring greater transparency and comparability to the performance of impact investments; and (3) to unlock larger pools of capital, regulators should reduce the barriers faced by institutional investors that are interested in impact investing (IFC 2019).

One of the pitfalls of SIBs is the fact that in developing countries, including in Latin America and the Caribbean, these sources of financing are available on a limited scale. Beyond supply- and demand-side issues, several significant barriers to scalability are worth highlighting. First, while the basic structure of impact bonds in developing countries has tended to follow the same patterns observed in high-income countries, a key difference is the greater need for a risk management element. Implementing impact

FIGURE 3.2 Operating Principles for Impact Management



Source: IFC 2019.

bonds in low- and middle-income countries also involves a contextual understanding of the goals and outcomes linked to the returns on investment.

Second, quantifying the value of interventions in each subsector (e.g., water supply, wastewater treatment, sanitation, etc.) is much more complicated, and in these cases, future savings are less likely to be a driving force of returns. In these cases, SIBs have strong limitations in their scalability: with an impact bond based on outcomes, a rate card may be issued in which the outcome funder lays out the price it will pay for each outcome, and multiple service providers can be engaged to achieve different results, making it difficult to estimate the net returns based on pricing. The sweet spot for impact bonds is likely somewhere between experimentation and scale—the middle phase—where evidence is insufficient (or there is some potential political barrier) for outcome funders to pay yet sufficient for investors to engage (Brookings Institution and Convergence 2017).

Most SIBs have investment structures that combine riskier and more conservative aspects, much like debt and equity. All deals, by definition, offer variable repayment and interest based on project performance, but many also set caps on returns and have set interest rates for given outcomes. The infrastructure sector has not scaled up as fast as other social sectors like education and health due to the difficulty of managing execution risk. Execution risk can be defined as a principle-agent risk between the financial intermediary and the hired service provider. Even after an intervention or service delivery model has been found to be effective, there is a risk that the chosen service provider is ill-equipped to implement it correctly. While the reason for this risk could be the service provider willfully exploiting the asymmetry of information—knowing that it is not capable of implementing the program—this risk is more likely to be a product of poor internal operations and performance management. Also, the central role of the

intermediary in the SIB structure can very easily become a bottleneck and undermine a project’s social and financial goals. With the differentiated and evolving structure of SIBs, the responsibilities of the intermediary are multifaceted and constantly changing, hence raising the *intermediary risks* of the project.

Beyond the principles of impact and risk management, new funding instruments are targeting the SDGs. The general-purpose sustainability-linked bonds,³ in particular, offer the required flexibility to achieve broader goals beyond single-project financing and, importantly, provide an unambiguous signal of this intention to investors who are increasingly seeking opportunities in this space. Three cornerstones underpin SDG bond transactions:

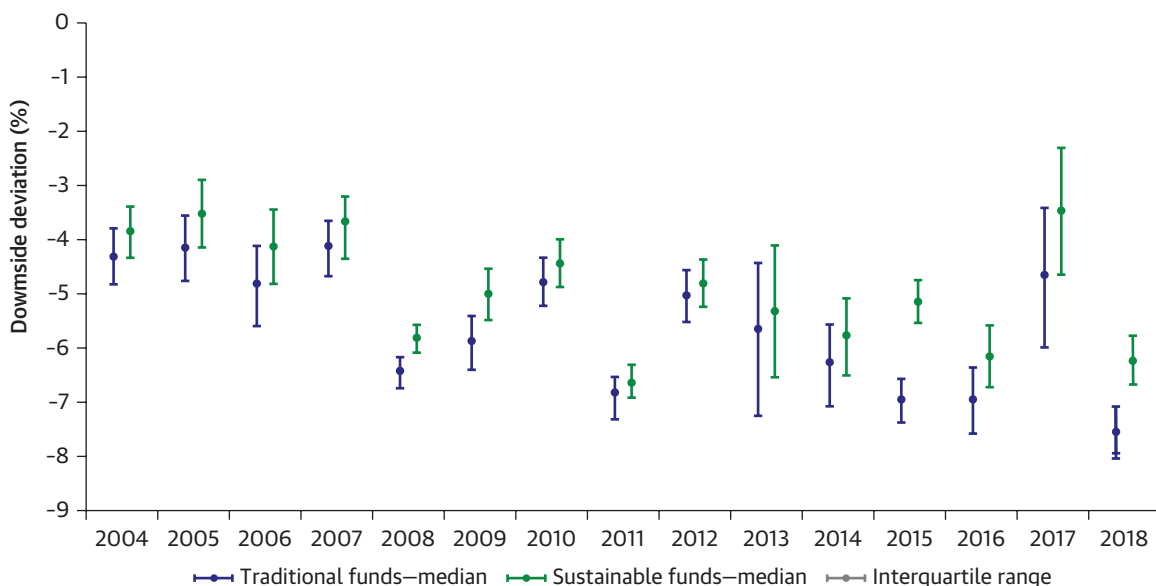
1. A clear link to the sustainability strategy of the issuer, through predetermined sustainability targets;
2. An up-front discount on the pricing of the SDG bond issue that reflects the economic value of the sustainability strategy of the issuer; and
3. Assurance, provided by external auditors, of the achievement of predetermined sustainability targets.

A comparison between sustainable bonds (SIBs, development impact bonds [DIBs]) and thematic bonds (green bonds, climate bonds, SDG bonds) that link proceeds to specific development and environmental objectives, shows that, overall, the median of the distribution of downside deviation of the market value of sustainable funds was consistently smaller each year (around 0.6 percent less every year), and 20 percent less risky than what traditional funds experienced between 2004 and 2018 (figure 3.3). Four principles can explain this difference:

1. Efficiency/innovation;
2. Understanding water challenges;
3. Promoting reallocation of some or all of the risks of failure to private investors (who make their appropriate returns for taking the risk); and
4. Leveraging private investment in the sector with large deficits and social outcomes.

For these reasons, the IFC launched “Operating Principles for Impact Management,” toward establishing common market standards for green/climate/SDG bonds and to spur the development of the impact investing market. These principles provide a framework for investors to ensure that impact considerations are purposefully integrated throughout the investment life cycle. These nine principles bring greater discipline and transparency to the impact investing market, requiring annual disclosure statements and independent verification of signatories’ impact management systems and processes.

FIGURE 3.3 Median Downside Market Value Deviation of Sustainable vs Traditional Funds, 2004-18



Downside Deviation	
Sustainable funds	-3.86 -3.52 -4.14 -3.66 -5.83 -5.03 -4.44 -6.66 -4.80 -5.32 -5.80 -5.14 -6.15 -3.47 -6.24
Traditional funds	-4.29 -4.16 -4.82 -4.12 -6.43 -5.87 -4.79 -6.88 -5.02 -5.66 -6.30 -6.96 -6.96 -4.59 -7.56
Difference (Sustainable - Traditional)	0.43 0.64 0.68 0.46 0.60 0.84 0.35 0.22 0.22 0.34 0.51 1.82 0.80 1.11 1.32
Statistical significance	** **
Statistical significance	99%+ *** 95%+ ** 90%+ *

Source: Morgan Stanley (2019), using Morningstar data.

Furthermore, the successful launch in September 2019 of the first-ever general-purpose sustainability-linked bond by ENEL, a multinational corporation, with support from the IFC is a milestone in the financing of Agenda 2030. Changing funding models for sustainable projects can change the way capital is allocated in the economies of Latin America and the Caribbean, encouraging a transition to sustainability at corporate levels. Potentially this expands opportunities to finance other sectors and the 2030 SDG Agenda (chapter 4). The incentive of these types of instruments is that, although they do not offer up-front discount prices or coupons, they can be traded to traditional bonds with potential penalties when the issuer fails to meet the targets. Hence, the fiduciary duties strictly link these instruments to specific environmental, social, and governance (ESG) or sustainability outcomes that, if met, deliver the intended returns.

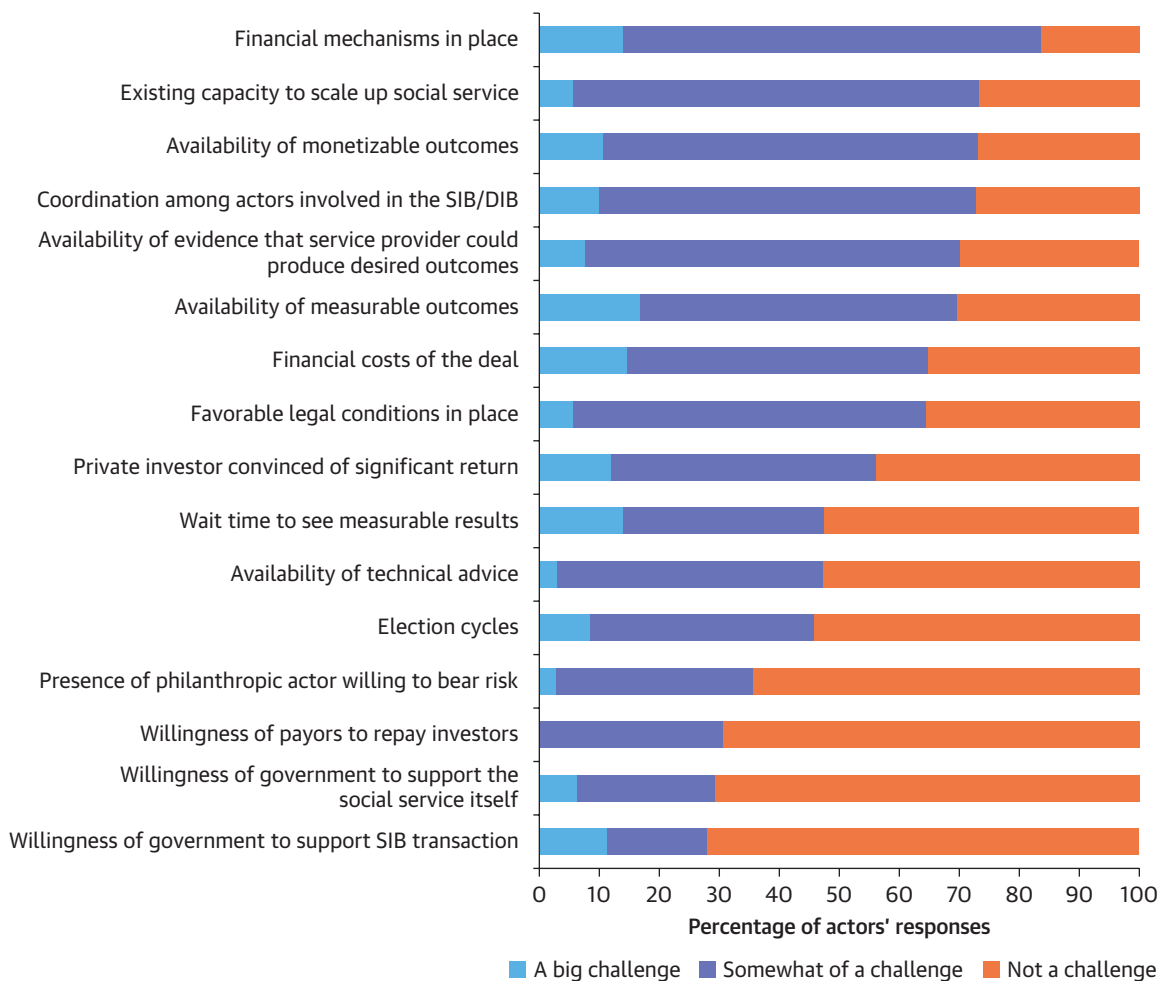
Constraints to Unlocking the Potential of Social Impact Bonds

The crux of “social impact bonds” is that returns are attached on pay-for-performance or RBF targets, so under those incentives there could be a transformative impact and a win-win situation for all the parties involved: the private and public sector, service providers, and beneficiaries. The first constraint is that the SIB model cannot be widely replicated for a range of social and environmental issues, and it poses

structural difficulties associated with the requirement to build quantifiable outcomes for each social problem vis-à-vis the interlinkages to produce outcomes among the different parties involved. The water sector is no exception.⁴ Specifically, the success of SIBs in water depends on local and national governments ensuring the sustainability of the outcomes after the end of the SIBs' financing. The key restriction is the challenge to further transcend the efficiency and performance parameters to attract more private investors and structure the bonds with higher competitive rates for scalability, amid the complex interdependencies of limited profitability (low tariffs), the high social value of these services, and environmental outcomes. An innovative mechanism for SIBs in the water sector is to crowd in funds for different technologies and innovations that feed into existing WSS systems to ensure water availability and quality.

Despite the fact that many of the challenges are financial and the inability to monetize outcomes (figure 3.4), SIBs for water have relatively large transaction costs, particularly in Latin America and

FIGURE 3.4 Binding Constraints to Monitoring Social Impact Bonds



Source: Adapted from the Brookings Institution Survey on Challenges in Developing Social Impact Bonds (2016).
 Note: DIB = development impact bond; SIB = social impact bond.

the Caribbean. Monitoring systems to track the SIBs' implementation, and the costs, in terms of monitoring, verification, and issuance per unit of output, can be substantial. For instance, small-scale hydro innovations, which face high up-front costs, are the most suitable for distributed generation and offer relatively easy metering and monitoring mechanisms. But other types of innovations implemented in utilities for efficiency improvements, technological tools, and expansion of services not only face high transaction costs but are more difficult to monitor because of the types of indicators required to measure performance progress.

Banks and financial institutions are well positioned to handle the initial financial and risk burden and provide the reputation and marketing experience needed to set up monitoring and performance-based indicators. However, the results of groundwater interventions depend upon many stakeholders, providers, and local governments. This may conflate the results and confuse the process by which performance and returns are attributed among interventions.

Bundling different projects with a single SIB instrument is one way to make the transactions and reporting of returns more efficient and transparent. It has long been expected that the greatest benefits of bundling come from decreased monitoring and verification costs per unit. Transaction costs increase rapidly if the bundled projects are not easily metered and/or cannot use common baseline and monitoring plans. To reduce monitoring costs, the bundles should be large, homogeneous, and concentrated. Large geographical spread can also become particularly costly for nonmetered activities. These issues interact with regulatory frameworks, and the more complex these are, the more likely it is for transaction costs to spike.

Notes

1. Quoted in Bertoméu-Sánchez and Serebrisky (2018).
2. GIIN refers to impact investing as “investments made with the intention to generate positive, measurable social and environmental impact alongside a financial return” (GIIN 2019a).
3. There is a distinction between SDG bonds and sustainability-linked bonds. Enterprises and investors increasingly recognize that sustainable development is at the core of long-term value creation but are not yet systematically integrating sustainability and impact considerations in their decision-making. SDG Impact aims to help make this process easier through SDG Impact Standards (UNDP SDG Impact, 2021). The World Bank's Sustainable Development Bond proceeds contribute to the Bank's entire balance sheet and thus the entire mandate of the institution, and through engagement and communication with investors, the World Bank Treasury raises awareness of specific development challenges
4. See, for instance, the Brookings Institution (2018) on the approach to SIBs in developing countries.

Chapter 4. A New Paradigm: Impact Bonds

Results-Based Financing as a Path toward Filling the Financing Gap

To deal with the financing gap toward the achievement of the SDGs in general and SDG 6 in particular, an increasing number of countries are adopting innovative solutions aiming at an optimal use of resources for the funding destined to services or infrastructure, including results-based financing (RBF). This is happening in a larger context: since the early 2000s, a robust debate on aid effectiveness has helped develop new tools that go beyond resource disbursement and also focus on impact. RBF helps ensure that funding is tied to verified results and is delivered when the results have been achieved. The mechanisms allow for greater flexibility in results delivery while improving accountability, and inject a culture of innovation in the process of delivering services and infrastructure. RBF nowadays represents a market of \$25 billion (World Bank 2019a).

Impact bonds are a new experiment in the early stages of design and testing. As the market develops, RBF can help us understand more about where, how, and why impact bonds improve effectiveness. Although, it is early to draw conclusions about the effectiveness of impact bonds, there are some caveats worth highlighting. First, RBF provides a framework to measure how outcomes are achieved and which returns are provided to the parties involved in the SIBs. The provider gets finance from an investor to share the outcome risk and cover working capital costs. However, the government issuing SIBs and an RBF framework should depart from cashable savings and focus on development outcomes. Cashable savings risks limit the scope and viability of SIBs by misrepresenting their main purpose, which is to drive social innovation. In other words, the SIBs' primary value should not be saving money for governments, but rather paying outcomes by driving innovation.

What Are Impact Bonds?

Impact bonds are a type of RBF promoting an innovative model of public-private partnership that has the potential to contribute to the MFD approach outlined in chapter 3 and help Latin America and the Caribbean region achieve SDG 6. Impact bonds offer a financing vehicle that harnesses private capital and expertise for efficient, high-impact service delivery. They enable payment-by-results models to draw private capital to prefinance projects that address critical needs (World Bank Group 2019a).

BOX 4.1 The Difference between Social Impact Bonds and Development Impact Bonds

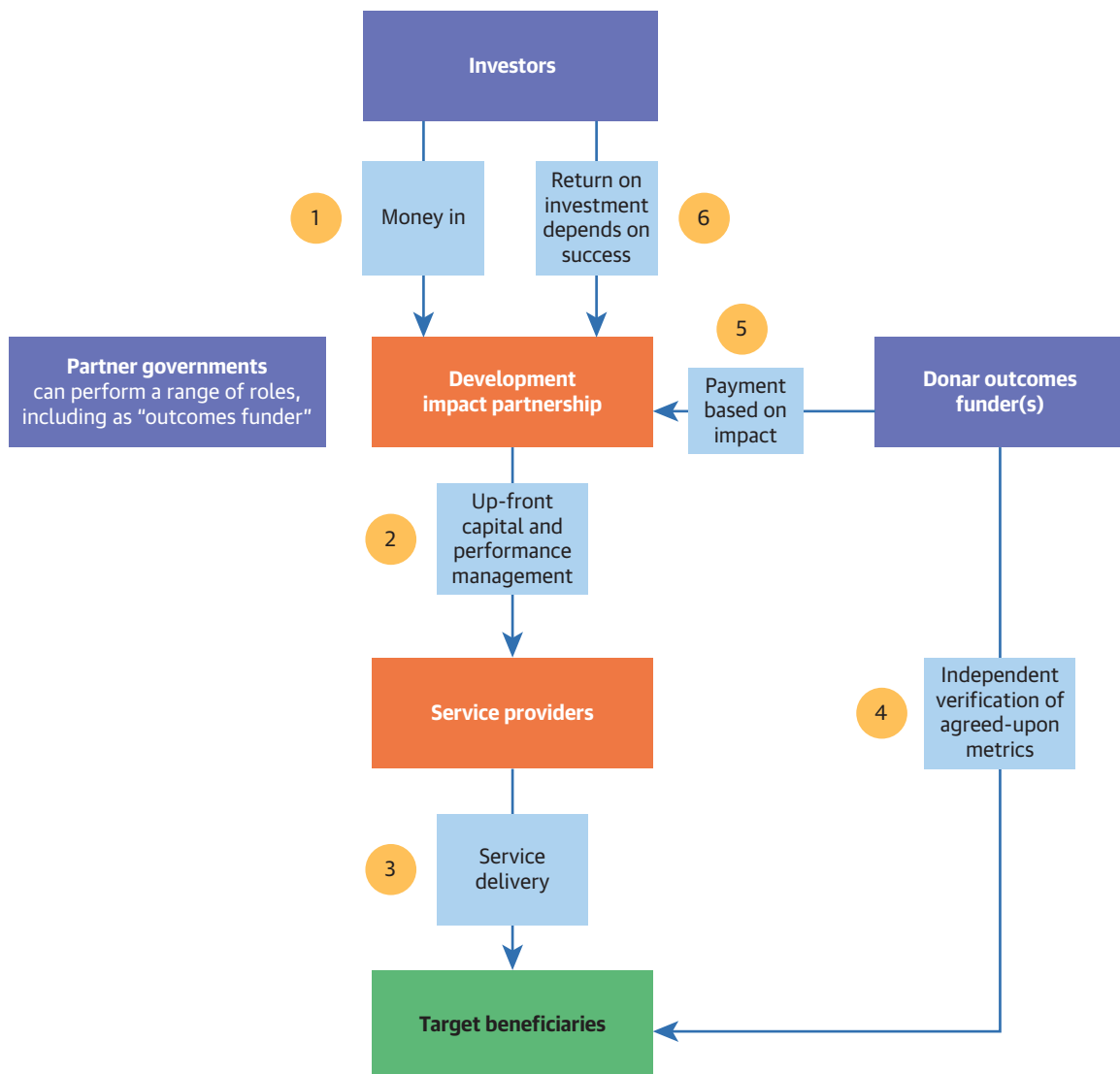
"Governments reimburse investors in the case of social impact bonds, while third parties such as donor agencies or foundations are the outcome funders in the case of development impact bonds (DIBs). Under the model, risks are shifted from the public to the private sector."

Source: Hurley 2019

In short, these instruments function along the following lines: at the start of the project, a performance-based contract that employs private finance provided by investors will cover the up-front costs of the project or program delivered by the service provider. Results are independently monitored and verified, and, upon successful delivery of the prespecified outcomes, the party issuing the contract reimburses the investors for the cost of the service, plus a return (figure 4.1).

Such models have been tested in Africa, Asia, and Latin America and have targeted various challenges, including youth unemployment, extreme poverty, and the quality of basic service delivery. As of February 2020, 185 impact bonds have been launched across 32 countries, including 174 SIBs and 11 DIBs, representing over \$418 million in private finance mobilized to resolve complex social challenges (Brookings Institution 2020b) (see figure 4.1).

FIGURE 4.1 How Impact Bonds Work



Source: World Bank Group 2019a.

By their very nature, impact bonds can help attract private capital and investment, as well as blend, along with blending concessional and private resources for development challenges (World Bank Group 2019a). They can also be used to address binding constraints (in the physical, operational, regulatory, or enabling environments) that impede private solutions. One important challenge is to recognize the level of effort and due diligence required of the service provider when structuring impact bonds for the water sector, especially in developing countries where service providers are typically weak. The challenge to impact bonds is that investors are asked to take on the risk of not achieving specified outcomes. They must have some confidence that these outcomes are reasonably achievable, measurable, and linked to a return structure, and thus that the service provider is capable of achieving them (from a technical, financial, management, and governance perspective). This is one of the key challenges of these instruments being applied to a sector that has weak operational and financial providers.

How Impact Bonds Can Contribute to MFD

Impact bonds can help maximize MFD, including by addressing critical financing gaps for service delivery. They can attract financing to results-based contracting models that provide working capital for service delivery before the repayment is made (World Bank Group 2019a). This is especially convenient as some service providers that have small cash reserves cannot afford to wait for payment to be made once services have been delivered and results are achieved. This in turn limits their ability to compete for service delivery, pushing them to cede the ground to organizations with adequate cash reserves and a stronger financial track record.

BOX 4.2 Creating a Performance Contract between Public and Private Stakeholders

"Impact bonds create a performance contract between public and private stakeholders, in which a government stipulates quantifiable improvements in social or environmental outcomes. As part of this contract, private investment is raised to pre-finance the cost of delivering services. Payment is made by the government or a third party to reimburse the initial investment, plus a financial return—but only after outcomes are achieved.

"This return on investment is typically conditioned by the degree to which outcomes improve, thereby mitigating performance risk for public actors and incentivizing private actors to meet or exceed requirements in development interventions.

"In addition to their money, investors also contribute their managerial capital to impact bonds. This includes advice and assistance in organizing and monitoring projects and vetting service providers with rigorous due diligence. Private actors promote a strong analytical and empirical rigor in operations, helping to establish performance metrics and baselines for outcomes.

"Impact bonds offer a more robust approach to verifiable outcomes than is found in most measurement and evaluation (M&E) and impact evaluation systems."

Source: World Bank Group 2019a.

Impact bonds can also inject a more entrepreneurial approach into public service provision. By focusing on outcomes rather than activities, services providers are offered more latitude in the way they deliver the said services. In turn, this can generate new business opportunities that had remained previously untapped.

Impact bonds also lead to services providers offering their know-how, experience, and culture of innovation, and bring a results-focused approach to the problem-solving process. And finally, impact bonds have a solid record of attracting financing for prevention-oriented services (World Bank Group 2019a). By paying only for successful outcomes, governments can free fiscal resources that might have been otherwise allocated inefficiently, and they can transfer the risks of innovation to the service providers, incentivizing performance along the entire process.

One must be aware, however, that impact bonds do not constitute silver bullets for MFD. For one, transaction costs can be relatively high, because of legal fees, extensive negotiations, origination costs, capital raising, coordinating parties across project approvals and appraisals, evaluation and project monitoring, performance management, and participation in governance and oversight committees, among other things (World Bank Group 2019a). Therefore, new approaches must be found and tested to bring costs down.

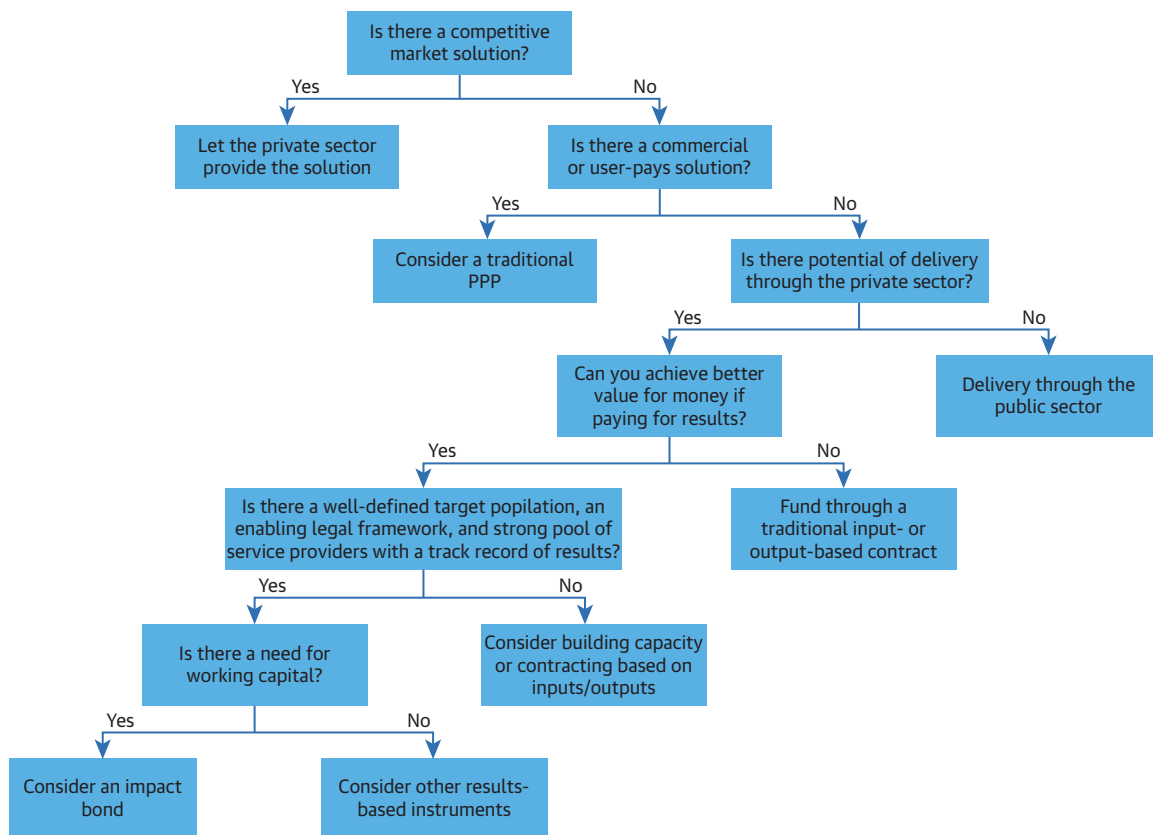
In addition, due to their relatively new development, evaluation of these tools will require additional data for their contribution to MFD to be better assessed. Therefore, before deciding to scale them up, the WSS sector in Latin America and the Caribbean would benefit from testing these new tools through pilot projects.

TABLE 4.1 Potential Benefits of Impact Bonds

Stakeholders	Potential Benefits of Impact Bonds
Governments, donor agencies, nongovernmental organizations, or others who pay for outcomes	<ul style="list-style-type: none"> • Fiscal flexibility, efficiency, and greater focus on funding intervention services. • Reduction in the costs of failure and promotion of greater innovation in solutions.
Service providers	<ul style="list-style-type: none"> • Flexibility in service delivery offered to service providers, thanks to a focus on outcomes rather than on activities. • Access to up-front capital for service providers to cover delivery costs, in whole or in part.
Investors ¹	<ul style="list-style-type: none"> • Impact bonds are attractive because they offer investors the chance to diversify their portfolio and invest in entrepreneurial solutions on a range of social and environmental issues. • Alignment of incentives that encourage a degree of flexibility not found in other investment operations. • Signaling of commitment by the government/donor to the improvement of a specific issue that can establish a price that funders are willing to pay for similar future outcomes. In turn, this establishes a market benchmark for funders, investors, and service providers.

Source: World Bank Group 2019a.

FIGURE 4.2 Impact Bond Decision Tree for the Cascade Framework



Source: Levoca Impact Labs (quoted in World Bank Group 2019a).

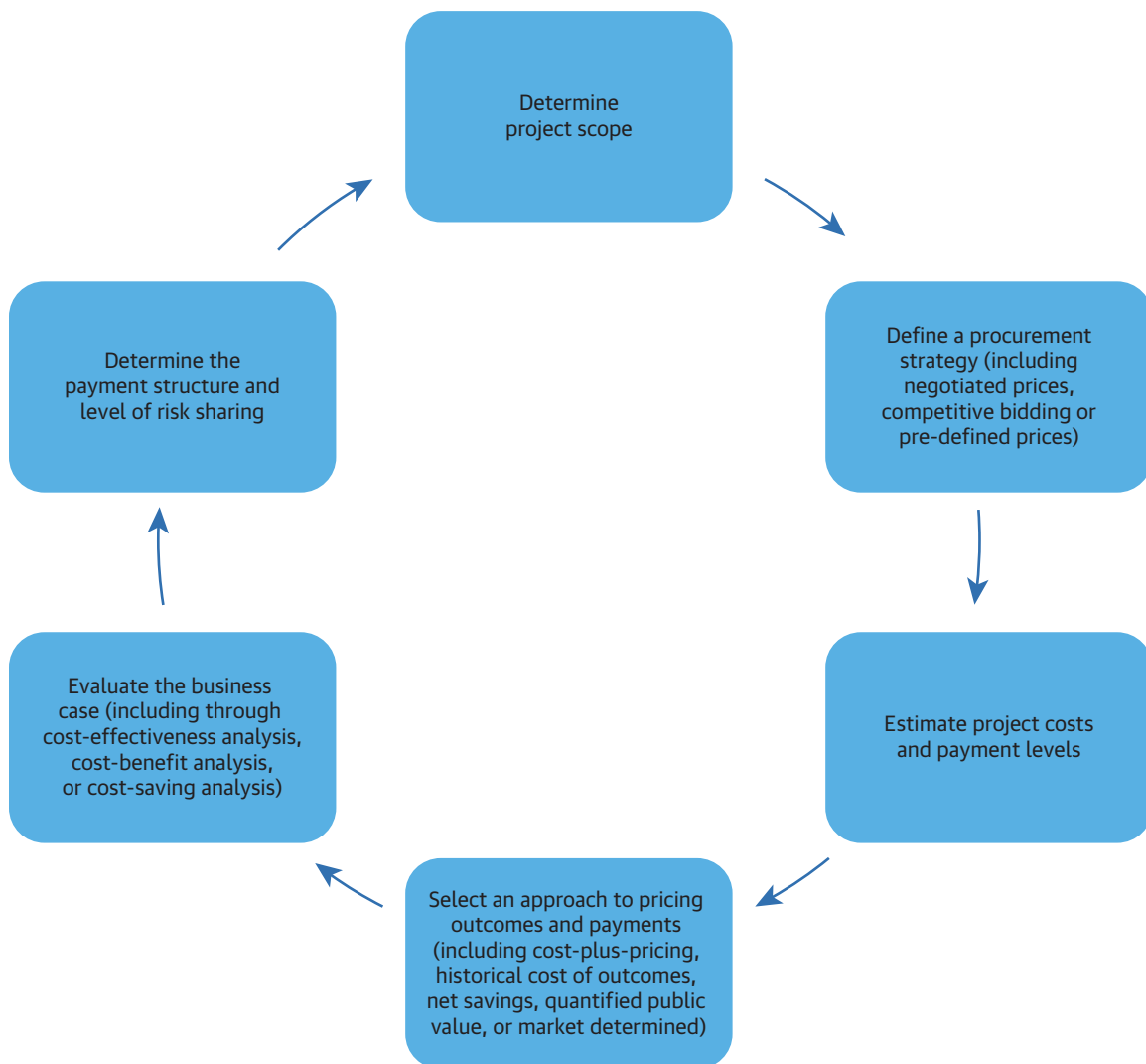
Note: PPP = public-private partnership.

Pricing the Returns and the Outcomes Right

Service providers and governments or donors who pay for the outcomes may have differing views on how to best estimate the return, balance commercial viability, and price the outcomes. This is all the more difficult to assess as these are instruments with a recent history—the first SIB was launched in 2010 to address prison recidivism in the United Kingdom, while the first DIB was implemented in 2014 in India to tackle the issue of out-of-school girls’ enrollment and improve educational attainments of boys and girls in math, English, and Hindi (GPRBA 2019)—and each project is different in its own way. Moreover, there is, to date, limited information available publicly on investors’ returns or methods of calculating returns (World Bank Group 2019b).

Pricing strategies vary due to diverse factors, including the specific context in which an impact bond is developed, the nature of the negotiation process, and the contracting model. Payment levels should however be fair to all parties: payments must be high enough to be commercially viable and low enough to avoid windfall profits for investors and a welfare loss for taxpayers (World Bank Group 2019b).

FIGURE 4.3 Key Steps for Outcome Payers



Source: World Bank Group 2019b.

To put this in context, impact bonds usually mobilize small amounts that may not be enough to pay for expensive infrastructure projects. However, the example of the sanitation project in India comes close to what can be a larger amount of money (€100 million target for fundraising) involving scale (objective of a total of 1.5 million toilets). Similarly, SIBs aggregated per region show that² impact investors invested a total of \$4.7 billion in the Latin America and the Caribbean region between 2016 and 2017, with Peru as the top destination followed by Ecuador. However, most of these impact investors were based outside of the region, though there has been a steady increase in local impact investors, the majority being based in Brazil (18 percent) and Mexico (13 percent) (Brookings Institution 2019).

BOX 4.3 Impact Bonds in Mexico

Mexico, the second-largest economy in Latin America and the Caribbean, has been experimenting with impact bonds since a few years back. This was made easier thanks to the government's experience with results-based programs and a rich ecosystem of civil society organizations providing services to underserved communities and of independent ones capable of designing projects and programs and assessing results on the ground.

In this context, *ALCANCE* (REACH), a pay-for-success model, was launched in 2013 and has been implemented in more than 115 municipalities to ensure access to education for more than 40,000 students over the duration of the project. As this is a results-based financing project and not an impact bond, the private sector was not involved in its development.

Recently, the first impact bond was launched in Mexico—*El futuro en mis manos* (“the future is in my hands”)—with an objective to train 1,320 female heads of households and increase their purchasing power, savings, and assets in the Metropolitan Area of Guadalajara.

Source: Ethos Public Policy Lab and Brookings Institution 2017.

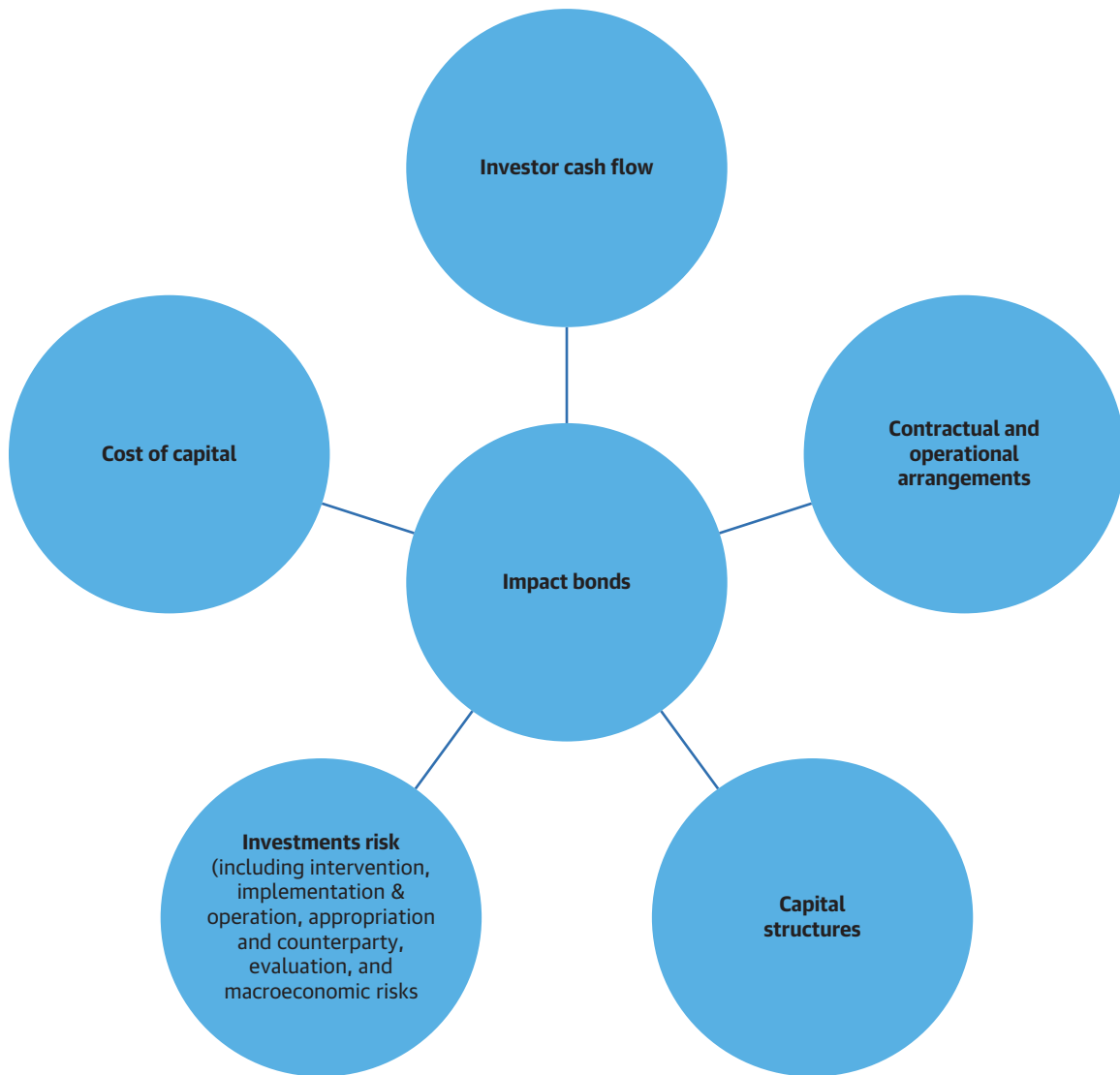
Evaluation Is Key to Impact Bonds

Because independent evaluation is so crucial to the process, indicators must be defined precisely. This, in turn, will better assess the project's value added to the community, and will also help define the payment modalities (Haut-Commissariat à l'Economie Sociale et Solidaire et à l'Innovation Sociale 2019). There are four levels of indicators to consider:

1. *Means indicators.* Investments made so far, salaried workforce or volunteers, sound information system, and so on.
2. *Achievement indicators.* Number of people benefiting from the project, number of grants distributed, and so on.
3. *Results indicators.* Immediate (i.e., short to medium term) effects of the project on the population targeted by the public policy.
4. *Impact indicators.* Systemic effects beyond the immediate ones (i.e., medium to long term).

According to France's Haut-Commissariat à l'Economie Sociale et Solidaire et à l'Innovation Sociale, means and achievement indicators measure the efforts deployed for the operationalization of a project; the results and impact indicators measure its effects. It is important that indicators clearly reflect the public policy's objectives.

FIGURE 4.4 Key Considerations for Investors

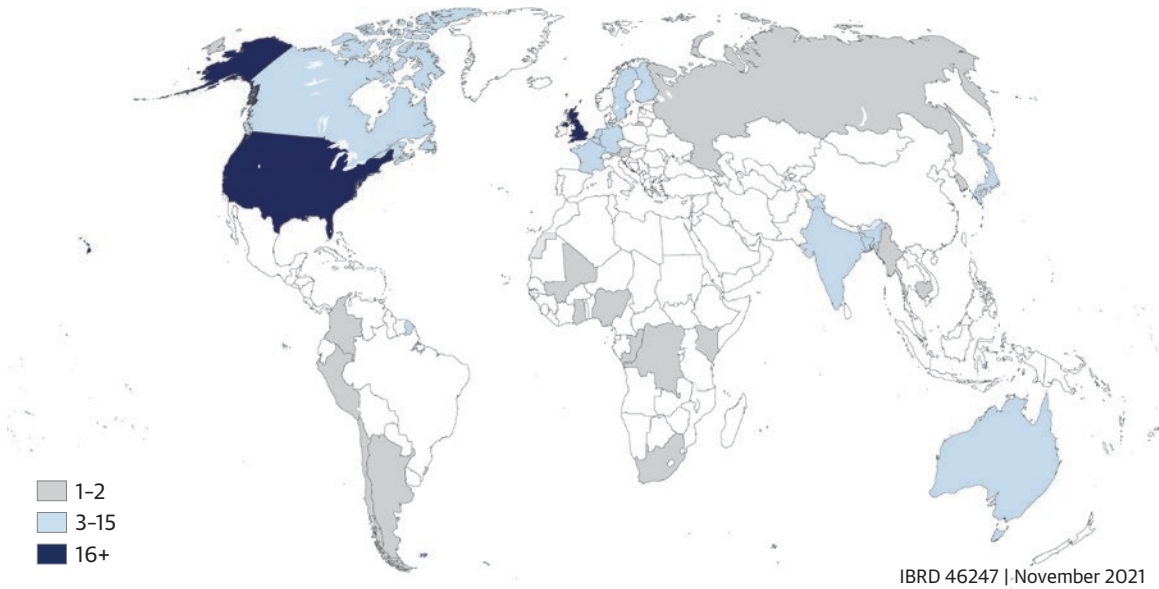


Source: World Bank Group 2019b.

Unleashing Sustainable Development Goal (SDG) Bonds: What Are Their Features?

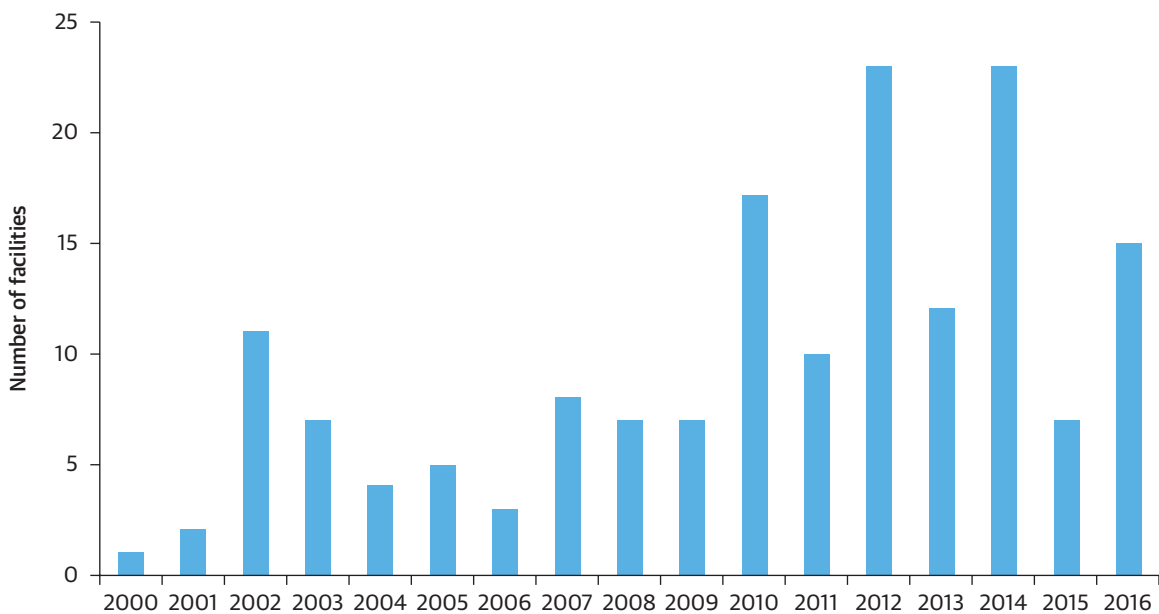
A novel instrument for leveraging development finance are SDG bonds. These bonds are issued under the governance structure of the United Nations Development Programme (UNDP). Their creation followed a consultation process that embraced the UNDP Principles for Social and Environmental Standards. An engagement plan sought to obtain feedback from a broad range of stakeholders, including the investment and business community, civil service organizations, organizations expert in human rights and the rights of indigenous peoples, other UN bodies and initiatives, and relevant industry groups.

MAP 4.1 Numbers of Development and Social Impact Bonds around the World in 2019



Source: Brookings Institution Global Impact Bond Database, October 1, 2019.
 Note: DIB = development impact bond; SIB = social impact bond.

FIGURE 4.5 Amount of Blended Finance (Including Impact Bonds) Devoted to WASH, 2000-16



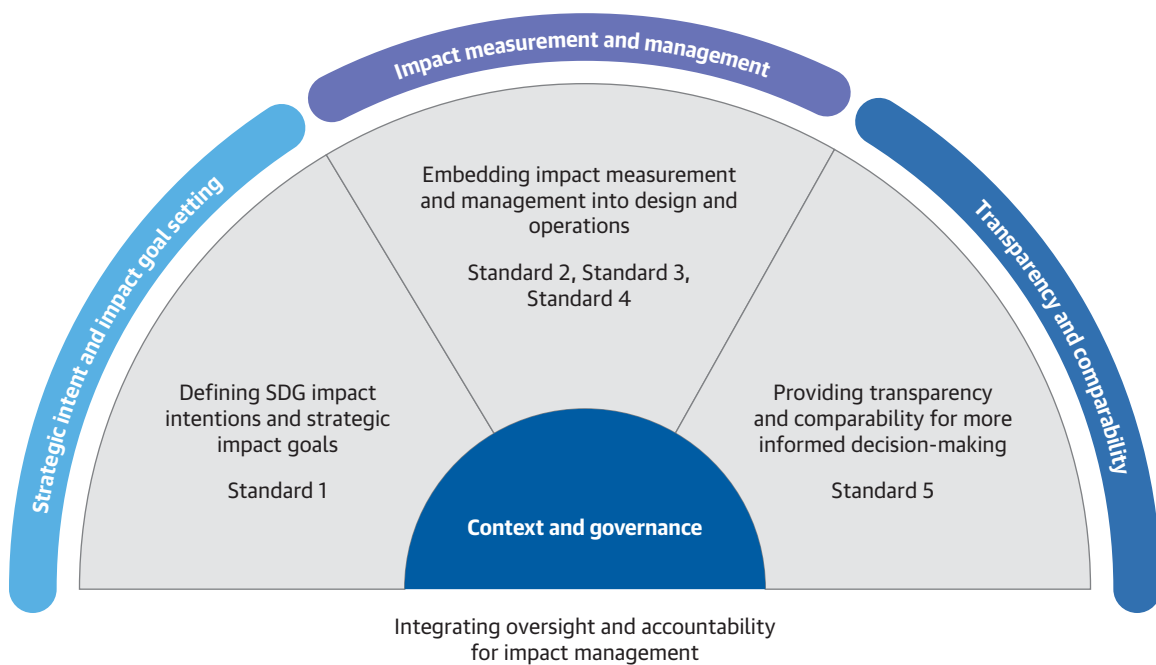
Source: OECD 2018.
 Note: Facilities include any type of rehabilitated or new infrastructure that serves the purpose of producing and distributing water, sanitation, and wastewater services. Other instruments, aside from social impact bonds, included are credit lines, direct investment, guarantees, cofinancing, and syndicated loans. WASH = water supply, sanitation, and hygiene.

SDG bonds embed the principles of use-of-proceeds from the International Capital Markets Association’s Green/Social/Sustainability (GSS) and Bond Principles and Voluntary Process Guidelines for Issuing GSS Use-of-Proceeds Bonds, certified by the Climate Bonds Institute, or issued under the proposed EU Green Bond Standard. SDG-linked bonds, where the coupon payable by the bond issuer is linked to achieving specific SDG targets, can be issued specifically for certain SDGs or the entire SDG target for a country.

Moreover, there are specific guidelines to support the investors’ assessment of the SDG-enabling attributes of various SDG bonds, whether they are self-assessed or certified by an independent, UNDP-accredited certifier. They can use these standards to frame their investment guidelines and identify questions for issuers about the bonds’ SDG-enabling attributes. The standards for SDG bonds (figure 4.6) require ex ante assessment of impacts, and the establishment of baselines and targets against which to assess actual impact performance and ongoing measurement, monitoring, evaluation, and response as the issuer’s understanding of impacts evolves and as the sustainable development context changes. To achieve these targets, six standards are established to reflect core elements of accountable impact practice, organized in four parts: strategic intent and impact goal setting, impact measurement and management, transparency and comparability, and context and governance.

The World Bank issues SDG bonds to provide sustainable and targeted finance, which in many cases meets the UNDP standards and diversifies the sources of funding. The World Bank is the single-largest

FIGURE 4.6 Standards for SDG Impact Bonds



Source: UNDP SDG Impact 2020.

Note: SDG = Sustainable Development Goal.

provider of financing of projects and programs across a range of sectors that deliver social impact worldwide, with an average of \$22 billion committed to more than 100 new projects each year. For example, the Bank is the single-largest financier (portfolio of \$12 billion) of environmental projects worldwide with clear objectives that:

- Address biodiversity conservation, pollution, and natural resource degradation challenges, including water resources.
- Prepare national plans and legislation to protect the environment.
- Foster clean energy investments to help meet the needs of developing countries in an environmentally responsible way, to reduce greenhouse gas emissions, and to help countries adapt to climate change.

Under those provisions, SDG bonds can select specific SDGs to reach the 2030 targets. For SDG 6, the focus of the bonds is not only on environmental objectives, but also on “social returns,” that is, investment strategies that integrate social and environmental criteria into investment decisions. For SDG 6 such focus areas are complementary and with a proper governance structure like the one embedded in the UNDP bonds, the orientation of SDG bonds is on “sustainable investing,” which defines strategies that aim to maximize social good and financial returns. Others include “social,” “sustainable,” “ethical,” “mission-based,” or “impact” investing. The World Bank’s mission to fight poverty in a sustainable way, through improving education, health care, and the environment, make World Bank bonds suitable for investors with such an investment strategy (table 4.2).

The objectives of SDG bonds are to bridge the financing gap and to strengthen the financing systems on which water and sanitation investments rely. These instruments have new features such as better financial management and optimization of funding to achieve the SDGs: the governance framework used in

TABLE 4.2 World Bank SDG Bonds: Triple-A-Rated Product Mix for Investors

Product	Global & Benchmark Bonds	Non-Core Currency Bonds	Structured Notes & Callable Bonds	Capital At Risk Notes	Discount Nates & Custom issues
Why Invest?	Liquidity	Diversification	Customization	Yield Enhancement	Cash Management
Recent Issue	US \$2 billion, 10-Year, 2.500% due 2027. Yield of 2.569%, equivalent to 19.52 basis points over 2.250% U.S. Treasury due 2027.	Chinese renminbi 1.5 billion 3.5% due 2018	Offered in major currency, two years or longer, fixed-rate, with early redemption, 100% of notional.	The largest ever risk insurance transaction. US\$1.3 billion issue & earthquake coverage for Chile, Colombia, Mexico & Peru.	Offered in US and Euro Dollar markets, with maturities of 13 months or less, and greater than \$50,000 through major dealers.

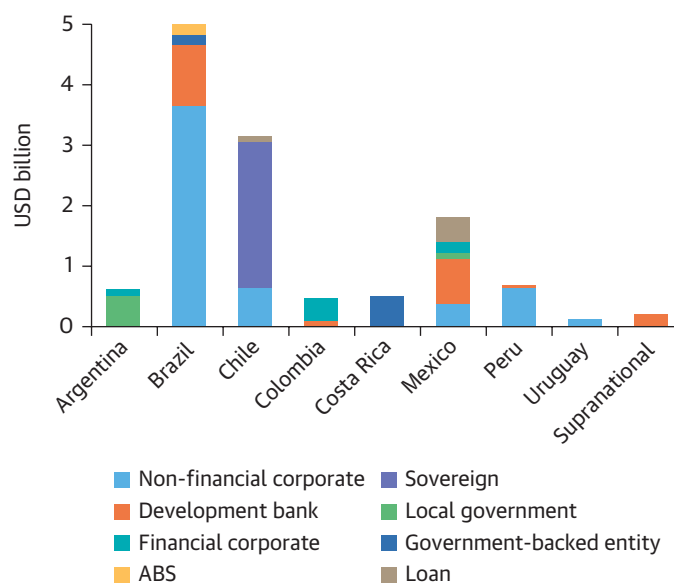
Source: World Bank n.d. (<https://treasurv.worldbank.org/en/about/unit/treasurv/ibrd#1>).

SDG bonds is streamlined to increase service coverage in a sustainable manner and transparently to ensure social and financial returns on investments. The governance structure of the UNDP bonds is a standard for transparency and accountability, whereas other governance frameworks rely on commercial financing that depends on book management and rules for its structuring.

Because of the “public good” nature of water and sanitation services and the necessary sharing of water resources, this sector requires a robust regulatory and policy framework to function well. Some key lessons come from the Caribbean (Jamaica) and South America (Manta in Ecuador and Arequipa in Peru), where off-grid sanitation solutions like fecal sludge treatment plants are being developed to cover the requirements of nonsewered parts of cities. The municipal governments in these countries provided 80 percent of the construction costs, while an average of 20 percent of the costs were provided by the concessionaire. Funding instruments like SDG bonds are providing technical assistance and pooling finance mechanisms to scale up blending instruments in landscape-based approaches, which have mainly attracted public funds and commercial financing (OECD 2019b). Unlike traditional payment-by-results tools, SDG bonds involve private investors in support of public-private partnerships built on outcome-based contracts, which also benefit service providers.

The opportunity for the water sector is to embed the sector’s objectives in green and sustainability instruments. For instance, as of 2019, the green bond market in Latin America and the Caribbean amounted to \$12.6 billion—2 percent of the global market. Nevertheless, nonfinancial corporate and sovereign entities, and development banks, comprise 80 percent of overall issuance. Still, eight countries saw green bonds issued by 2019, with Brazil accounting for 41 percent of the total, Chile 25 percent, and Mexico 14 percent (figure 4.7).

FIGURE 4.7 Green Bond Issuances in Latin America and the Caribbean, 2014-19



Source: Climate Bonds Initiative 2020.
 Note: ABS = asset-backed security.

Chile was the first country in Latin America and the Caribbean to issue a sovereign green bond in 2019, with Ecuador and Guatemala issuing sovereign social bonds and Mexico issuing an SDG bond to finance green and social activities in 2020. The case of Chile (see box 5.3) shows how these instruments can be linked to specific water sector outcomes through enterprises and issuers that consider meeting ESG targets among their core development and performance objectives.

Notes

1. For gaining and attracting new investors, an analysis is required to identify the types of investors who would be willing to pay for the delivery of such outcomes, since the investor only earns a return if the SIB is successful. This analysis will provide the basis to understanding the sources of funding, types of funding, and investors' profiles that will best fit the SIB, depending on the objectives to be achieved. For projects related to water, there is potential to further explore the types of KPIs and ESG parameters that would be attractive to different types of investors, with clear guidelines on corporate social responsibility programs and the ranges of returns and losses expected under different scenarios.
2. Over the past three decades, and in parallel with fast economic growth, many Latin American countries have taken huge strides toward greater social protection. With many of the coverage targets achieved, attention has now turned toward the quality of the services provided.

Chapter 5. How Impact Bonds Can Address the Need for New Water and Sanitation Financing in Latin America and the Caribbean

Basic WASH Needs and Financing

According to a 2017 World Bank/UNICEF discussion paper, globally, the current levels of funding flowing to WASH services are in line with only the capital costs of basic WASH services. The costs of achieving safely managed WASH, on the other hand, are a multiple of the costs of achieving basic WASH. The World Bank estimates that \$114 billion is needed per year in overall global investment to meet SDG targets 6.1 and 6.2. This represents 0.39 percent of the combined annual national income of the 140 low- and middle-income countries included in the study. The feasibility of achieving the SDG WASH targets depends on the ability to mobilize and redirect significant additional resources if services are to benefit poorer, harder-to-reach populations. To achieve better results from existing financing, governments need to go through a series of crucial steps, including (1) identifying objectives for the water, sanitation, and/or hygiene sector; (2) implementing corresponding policies; (3) setting up sectoral reform(s) needed to achieve sectoral objectives; (4) defining who pays for what in the sector; (5) analyzing each subsector (urban water, rural water, etc.) individually to maximize the use of existing financial sources; and (6) aligning aid transfers with domestic priorities (World Bank Group and UNICEF 2017).

This alone, however, will not suffice to address the funding gap toward the achievement of SDG targets 6.1 and 6.2. It is in fact crucial to mobilize alternative sources of funding as well, including private ones. Doing so would help service providers borrow and invest to expand services and improve quality. Other studies have produced similar conclusions. The 2018 Roundtable on Financing Water has highlighted that, while official development assistance to the water and sanitation sector has increased in absolute terms, aid for water as a percentage of all aid flows declined from 5 percent in 2005-06 to 4.5 percent in 2015-16. Moreover, from 2012 to 2015, only \$1.54 billion of private finance is reported to have been mobilized in the WSS sector out of a total of \$81.1 billion mobilized for all sectors. With respect to the blended finance instruments used to mobilize private finance, guarantees account for more than 60 percent of the private finance mobilized, followed by syndicated loans mobilizing 25 percent of private finance (Roundtable on Financing Water 2018).

It is also worth noting that Latin America and the Caribbean is far from being a major beneficiary of official financing to the water sector. According to the OECD, in the regional distribution of official financing flows to water in developing countries in 2014-15, Asia ranks as the top recipient, with 45 percent of the total commitments. Meanwhile, South America received 12 percent and North and Central America received 5 percent of the official financing (OECD 2017). This is where impact bonds can help the region of Latin America and the Caribbean achieve the SDGs, particularly in the WSS sector.

The lack of efficient service providers, and the lack of clarity regarding policies, regulations, and institutional stewardship results in inefficient and scarce financing to the sector. These demand-side issues call for water and sanitation utilities to develop investment-grade conditions in the range of A3 to Baa1 (Deloitte 2016) to ensure access to sustainable and affordable finance. But many utilities are far from gaining these grading conditions or may sacrifice financial and operational performance to do so. Institutional capacity and regulatory reforms are hence mechanisms to improve demand-side conditions for these financial market players. The introduction of industrial competition for water and sanitation services means that players who do not have access to the investment-grade market will need to rely on other sources of (inefficient) financing.

Impact Bonds in the Water and Sanitation Sector

In other regions of the world, there are instances of impact bonds being used or considered for the WSS sector, and Latin America and the Caribbean could benefit from the lessons learned in this area. Such examples also demonstrate that new partnerships between the private sector, the public sector, and local communities can be developed through these innovative tools.

BOX 5.1 Subsidies Need to Be Designed in Smart and Targeted Ways and Implemented Effectively

"Governments across the world are pouring money into water and sanitation subsidies—around \$320 billion a year [...]. That's over 300 billion dollars of public money which makes up the difference between how much it costs to provide water and sanitation services and the money that comes in from users. These subsidies cover operations expenditures such as staffing costs, maintaining existing infrastructure, and infrastructure rehabilitation and expansion. So, water and sanitation subsidies can consume a substantial amount of a country's scarce public resources. As well as being expensive, they are also:

"Pervasive—Subsidies are common across countries, irrespective of region or income level

"Non-transparent—Subsidies can facilitate rent seeking by governments and service providers

"Distortionary—When badly designed, subsidies can contribute to inefficiency, threaten service sustainability and encourage overexploitation of resources

"All too often, these subsidies fail to reach the poor, with the richest households receiving the lion's share. [...] on average, across the 10 low and middle-income countries examined, 56% of subsidies end up in the pockets of the richest 20% but only 6% of subsidies find their way to the poorest 20%. So instead of acting as an equalizer, subsidies are instead exacerbating existing inequalities. But it doesn't have to be this way. Subsidies can be powerful and progressive tools in delivering water and sanitation when they are designed in smart and targeted ways and implemented effectively."

Source: Abstracts from World Bank (2019b).

One such case is the first sanitation bond, launched in 2018 in India (OECD 2019c). While a pilot phase collected €5 million, a €100 million target has been set for fundraising among institutional investors over a three-year period. Ultimately, the objective is for Indian microfinance institutions to disburse sanitation loans to households for the building of toilets—the target being a total of 1.5 million toilets. If the said objective is reached, lower interest rates will be granted to the microfinance institutions to reward their achievement (OECD 2019c).

Other examples include contracts for small companies to undertake scheduled desludging in the Indian towns of Wai and Sinnar, through a DIB developed and researched by the CEPT University (OECD 2019c). Other partners of the project include private service providers, local governments, investors, and outcome funders, and the DIB is expected to ultimately contribute to the achievement of SDG 6 (SIWI World Water Week 2019).

Other DIBs pertaining to fecal sludge management are being considered in Senegal and Rwanda (OECD 2019c). These examples demonstrate that the WSS sector can also become a beneficiary of new sources of financing through the contracting of impact bonds, thus reducing a part of the financing gap.

Innovative Financing: State of Play in Latin America and the Caribbean

At a time when new financial instruments are being deployed around the world, various countries in Latin America and the Caribbean have been engaged in developing new deals with a greater focus on social impact investment as well as in growing the volume of capital in this regard (table 5.1).

According to the OECD, Argentina, Brazil, Colombia, Mexico, and Peru are currently the largest markets for impact investment in the region. There is some activity in Uruguay (in connection with Argentina) and some growth in impact investing in Bolivia, Guatemala, and the República Bolivariana de Venezuela (OECD 2019b).

Indeed, the region faces several challenges—some of which are listed in chapter 2—but according to the OECD, the region of Latin America and the Caribbean performs well in areas such as health, social connections, and life evaluations, but needs to improve in the areas of political institutions, education, vulnerability, and empowerment and participation. Many of these social challenges can be addressed through social impact investing (OECD 2019b). On the demand side, Latin America and the Caribbean has some strengths, among which is a strong entrepreneurial culture in its emerging economies. These may be hindered by obstacles, such as risk-averse local banks, misaligned investor expectations, high transaction costs, longer time horizons, limited assets, and small enterprise size. In particular, obtaining capital that aligns with the needs and specificities of impact enterprises appears to be a challenge, especially in the early stages. According to the OECD, grants (whether public or private) and/or technical assistance can help these ventures reach sustainability. On the supply side, impact investors in the region such as family offices, foundations, early-stage impact funds, private equity funds, development finance institutions, and institutional investors provide crucial support to the development of impact enterprises (OECD 2019b).

TABLE 5.1 Impact Investment Overview by Country in the Region

Countries	Total invested (million USD) 2014/15	Total invested (million USD) 2016/17	Number of deals 2014/15	Number of deals 2016/17
Argentina	NA	66	NA	20
Bolivia	24.6	40	8	29
Brazil	68.9	131	48	69
Chile	1.1	9	3	9
Colombia	32.7	86	16	42
Costa Rica	211	89	5	34
Dominican Republic	NA	10	NA	4
Ecuador	199.6	185	7	189
El Salvador	8.4	52	3	25
Guatemala	1.7	35	5	27
Honduras	NA	52	NA	25
Mexico	64.7	169	45	108
Nicaragua	24.1	114	10	69
Panama	NA	46	NA	17
Paraguay	93.8	54	3	13
Peru	210.4	218	23	152
Uruguay	NA	3	NA	14
Unspecified/other	10.8	85	11	14
Total	951.8	1 444	187	860

Sources: OECD 2019b, based on ANDE and LAVCA (2018); and ANDE, LAVCA, and LGT Impact Ventures (2016).

The OECD lists key opportunities and bottlenecks in the field of social impact investment in Latin America and the Caribbean, chiefly: (1) a fragile ecosystem; (2) a heavy focus on early-stage ventures; (3) education being the most important contributor toward ecosystem development across all market players; (4) support from development finance providers; and (5) improving the policy environment and moving beyond grant dependency by building capacity and fostering financial sustainability. Finally, according to the OECD, in terms of total capital deployed in Latin America and the Caribbean, microfinance has been the largest sector by far, followed by agriculture, information and communication technology, and energy. This leaves ample room for the growth of innovative financing tools in the WSS sector.¹

Latin America and the Caribbean Can Develop Pilot WASH Projects

As this chapter shows, there is ample room for Latin America and the Caribbean to try and develop pilot projects involving impact bonds focused on WASH. Such bonds are being experimented with in other sectors in countries such as Colombia, Peru, and Mexico. This is all the more important because

BOX 5.2 Impact Bonds Are Taking Off in Latin America and the Caribbean

"In April 2015, a small but complex development financing experiment began in an unlikely place—the Amazon jungle of Peru—11 hours by car and boat from the capital of Lima. This would be the first pilot of a development impact bond in Latin America and the Caribbean, and in fact, in the world. In this case, the goal was to increase the productivity and yield of cocoa and coffee farms to improve the lives of Asháninka farmers and their families [...]. Since then, three additional impact bonds have been contracted in Latin America [...]. Impact bonds are likely not the right tool to solve all of the challenges facing Latin America and the Caribbean, but, where there is complexity in the path to outcomes, this mechanism may have a role to play. [...]"

"After the Peruvian pilot DIB, an SIB for employment was contracted in Colombia. This impact bond focused on achieving sustained employment for vulnerable youth and in particular individuals internally displaced because of armed conflict. Results, just released after two years of implementation, showed that 899 people were placed in formal jobs (117 percent of 766 expected outcome beneficiaries), 677 people retained in their jobs for three months (88 percent of 766 expected outcome beneficiaries) and 309 people retained in their jobs for six months (60 percent of 514 expected outcome beneficiaries). [...]"

"There are a further ten deals in design that we are aware of including three for education, criminal justice, and homelessness in Chile; three in Brazil for education, health, and early childhood development; one for economic empowerment in Mexico; another to tackle cholera in Haiti; and one each for cloud forest conservation and sustainable cocoa production in Peru. Some of these have been put on hold while others are near contracting."

"Contingent financing has been utilized in the delivery of a multitude of services across several countries in Latin America. Plan Nacer, for example, was a results-based financing initiative of the World Bank and the Argentinean government, which aimed to improve the health system by offering incentives to provincial governments. The program, which underwent a rigorous impact evaluation, led to improved birth-related outcomes and a decline in neonatal mortality."

Source: Abstracts from Brookings Institution (2019).

the region has a strong entrepreneurial culture, and other parts of the world are showing that DIBs can be used to finance the WSS sector and ultimately help in achieving SDG 6. The last chapter of this report turns to policy recommendations for stakeholders who wish to explore the feasibility of impact bonds in the WSS sector in countries in Latin America and the Caribbean. In Mexico, the federal government issued the first-ever "SDG Sovereign Bond Framework" in 2020. It was based on five principles to arrange an investor roadshow in Europe, under a UNDP governance framework: (1) geographic contextualization (because SDG finance cannot be rootless and must be localized to take into account national and subnational SDG achievement gaps), (2) prioritization of specific SDGs (on the basis of acuteness of needs and materiality), (3) segmentation of the stakeholders and beneficiaries (with priority given to vulnerable populations), (4) attention to positive and negative interlinkages between the SDGs, and (5) impact attribution (showing the degree of contribution to progress toward the SDGs).

In Latin America and the Caribbean, viability gap funding (VGF) is used as in the grant schemes mentioned above, when there is no other alternative to make a public-private partnership financially feasible. VGF options have several benefits, including that they:

1. Increase the financial feasibility of public-private partnership projects that attract interest and participation of the private sector;
2. Increase the certainty of the procurement of the project company in accordance with the quality and the planned timeline;
3. Deliver public services at affordable tariffs to the community.

Also, VGF grants are available only for infrastructure projects where private sector sponsors are selected through a process of competitive bidding and disbursed at the construction stage itself, but only after the private sector developer makes the equity contribution required for the project.

BOX 5.3 A Sustainability-Linked Bond in Chile

According to the World Business Council for Sustainable Development, in April 2021, Chile issued a \$500 million sustainability-linked bond with great success. The bond generated great demand from global investors, particularly from investors dedicated to environmental, social, and governance priorities, pricing a yield of 3.085 percent, equivalent to a spread of 135 basis points (bps). Important institutional investors and banks participated as co-sustainability coordinators. The core indicators of this instrument were:

- Greenhouse gas emissions: 23.5 percent reduction of carbon dioxide emissions by 2025, and 50 percent by 2030
- Industrial water use intensity: 25 percent reduction in industrial water use by 2025

This innovative financing is aligned to the Sustainability-Linked Bond Principles, published by the International Capital Markets Association, and offers incentives to the company CMPC (Compañía Manufacturera de Papeles y Cartones) for achieving results in line and beyond publicly expressed commitments to sustainability. This instrument was important to CMPC because of its core business line: to produce and market in a sustainable manner—on the basis of manmade plantations—wood, pulp, paper, and tissue products of first-rate quality that were also competitive.

CMPC issued its third green bond in the Chilean local capital market in 2019, following previous issuances in Peru (2018) and the United States (2017). CMPC's 2017 green bond was the first green bond issuance from a Chilean company in the international capital market. Moreover, in 2019, the company also closed its first green loan, via a five-year-term Samurai loan.

Source: See <https://www.cmpc.com/> and <https://www.wbcsd.org/>.

Nevertheless, these sources of funding can many times be constrained by the limited creditworthiness of borrowers. Impact bonds can also be constrained by legal issues, including the ability of donors to use outcome-based contracting modalities and poor financial performance. On the impact side, there is the attribution challenge—to what extent can positive outcomes (or failures) be isolated to the impact bond? Impact bonds also demand timely, high-quality usable data (or a means to collect it in a cost-effective manner). Strong local service providers are also needed who must be able to adjust their programs where delivery is weak. The importance of developing the creditworthiness of borrowers to stimulate demand can also affect providers: with impact bonds, it is the investor who bears the financial risk and not the service provider.

Notes

1. Social impact bonds are a type of impact investment. Impact investments (and SIBs) are both innovative investments made with the intention to generate positive, measurable social and environmental impacts alongside a financial return. Impact investments can be made in both emerging and developed markets, and target a range of returns from below market to market rate, depending on investors' strategic goals. So do the SIBs which are just the instruments.

Chapter 6. Policy Recommendations

The Right Enabling Environment Is Key to Deploying New Financial Vehicles

Research has shown that innovative finance is indeed not the only way to bridge the financing gap when it comes to SDG targets 6.1 and 6.2 (Pories, Fonseca, and Delmon 2019). Given the specific nature of the WSS sector—akin to natural monopolies—there are three categories of issues that must be tackled for reforms to be effective, including (1) the governance, institutional, policy, tariff, and regulatory arrangements to ensure transparency, consistency, and sustainability; (2) the technical and financial efficiency of service providers to sustain creditworthiness; and (3) the supply of finance. Successfully rallying finance on a large scale is thus dependent on a reasonable level of performance across all these foundational areas. The deployment of new financial vehicles will also require complementary investment to address basic foundational issues in the enabling environment, which in turn can help maximize the impact of the said vehicles (Pories, Fonseca, and Delmon 2019).

Black Swans, Green Swans, and Blue Swans¹

The WSS sector is underfunded and increasingly facing great risks and uncertainties. This is predominantly due to the sector’s lack of creditworthiness, and not to a lack of private capital resources or instruments. Before COVID-19, capital was looking for investment opportunities and interest rates were low. Diversifying the sources of finance to the sector helps absorb the shocks emerging from risks and uncertainties. Economic and financial diversification are also paramount given the sector’s importance to human development and a thriving human capital market. The threats to financial systems and macroeconomics, the black swans (see, for instance, Faulkner, Feduzi, and Runde 2017), can increase the costs of capital and limit the equity required for investments in the sector. In addition to those

TABLE 6.1 Solutions That Can Help Better Mobilize Finance on a Large Scale

At the government/ sectoral level	<ol style="list-style-type: none"> 1. Planning and financing strategies for maximizing public and commercial funds to achieve social objectives 2. Effective financing strategies and economic regulation 3. Adequate performance regulation and accountability mechanisms 4. Clarity of mandate and performance obligations of service providers
At the service providers’ level	<ol style="list-style-type: none"> 5. Improved financial and operational management and efficiency 6. Capacity strengthening for business planning 7. Enhanced autonomy and legal framework
Regarding the supply of finance	<ol style="list-style-type: none"> 8. Curing the mismatch between commercial bank risks and the realities of water supply, sanitation, and hygiene services 9. Avoiding mechanisms that can result in market distortions 10. Targeting development finance for maximum impact

Source: Pories, Fonseca, and Delmon 2019.

uncertainties, MFD in the WSS sector can bring forward options to deal with other sources of uncertainty: green and blue swans. Green swans relate to the extensive damages in the region that come from negative externalities such as the depletion of natural ecosystems, deforestation, and climate change. To mitigate these uncertainties efficiently, financial options and instruments may have to trade off between efficiency and resilience. Allocating financial resources to those sectors that are more efficient can leave out sectors which are more resilient. Similarly, water security challenges pose new uncertainties and risks. For instance, water quality, water scarcity and depletion, and precipitation variability, contribute to enhancing the uncertainties of the WSS sector and the services they provide to people. In this regard, environmental impact bonds (EIBs) can bring together a mechanism to deal with the black, green, and blue swans. EIBs are instruments for financing large projects that pay returns based on outcomes. Like other green bonds, they are commonly used to raise funding for environmentally sustainable projects, such as green infrastructure. Unlike green bonds, however, the financial return of the investment is tied directly to the success of the project. In other words, investors can only collect a return on their investment if the project proves to be successful. When investors finance green infrastructure projects using an EIB, they see a financial return only after achieving a demonstrable difference to the environment. These types of solutions can bring an MFD framework to the WSS sector and maximize resilience as well.

The greatest challenge to developing markets and the scale of instruments shown in this report is the financial viability of the borrower. The consolidation and strengthening of green bond markets will likely come from the alignment of incentives between issuers and investors. As mentioned above, impact financing provides financial incentives to sponsors. But the demand constraints are in the way in which the solvency of the borrower reduces the financial risks of sponsors. A stable enabling policy, regulatory, and governance environment, needed for sustainable service providers, and balanced achievable targets are necessary. It is also worthwhile to point out that the degree of confidence and readiness of the investor to invest can be somewhat balanced by reducing the risks passed on to the investor. Therefore, it is fundamental to holistically design the debt structure attached to the project and ensure that it considers both demand and supply barriers.

Going Forward

Below, and based on the challenges discussed in this report, we outline a few policy recommendations that can guide governments across Latin America and the Caribbean as they assess the potential of impact bonds for developing the WSS sector:

1. Ensuring that financing gaps across the region are (i) properly identified and (ii) addressed accordingly in order to achieve SDG 6 should be a key imperative for stakeholders in Latin America and the Caribbean; in particular, market scoping—that is, a clear identification of the needs, challenges, as well as opportunities for investments in the WSS sector across the region—will be key in reducing risk and uncertainty for investors; identifying potential for governments, donors, and nongovernmental organizations; establishing a balanced contract between the latter and service providers; and adequately pricing the returns.

2. Before deciding to scale up these new tools, the WSS sector in Latin America and the Caribbean will benefit from testing them through pilot projects. This is crucial as there have not been enough completed or mature transactions to fully assess the contributions of this instrument to MFD (World Bank Group 2019a). Given the maturity of some economies over other, poorer ones in the region, it will be important to differentiate between opportunities for the use of impact bonds in countries in the region funded by the International Bank of Reconstruction and Development and those funded by the International Development Association.
3. The regulatory framework and public policy environment must be adapted to provide transparency and clarity to key stakeholders involved in the implementation of impact bonds. Funding for SDG-related projects has carried over into the private sector as an increasing number of pension funds and banks choose to allocate funds toward sustainable development priorities. The funding gap to achieve the SDGs is estimated to be \$2-\$3 trillion per year, with the private sector expected to contribute \$1.0-\$1.5 trillion.
4. Key elements of the successful delivery of impact bonds include: defining a short- to medium-term horizon (three to six years); setting a minimal, attractive financial size; designing simple and understandable indicators; having an operational and independent capacity for results to be measured; conducting thorough research on the project; defining a basic set of governance principles; anticipating the follow-up phase once the project is closed; and documenting the costs that were avoided to the collectivity (Haut-Commissariat à l'Economie Sociale et Solidaire et à l'Innovation Sociale 2019).
5. On the demand side, official creditors must be evaluated and build capacity to include state contingent elements in loan contracts, and when feasible, charge a higher interest rate to compensate for limited creditworthiness. These schemes can push up market prices due both to short-term supply/demand and to countries' improving fundamentals due to the buyback; care must be taken not to inflate prices in the secondary markets.
6. One of the main features that constrains the scalability of impact investing is the mismatch between supply and demand. Although demand for impact financing is limited due to the lack of creditworthiness of borrowers, that does not limit the high demand of impact financing with respect to the supply of capital. For instance, a recent study² showed that there is a 13.5 percent higher investment rate for impact funds³ compared to the benchmark investment rate of traditional venture funds. This implies that the supply of impact funds is insufficient to meet the increasing demand for impact investment.
7. Finally, solid monitoring and evaluation frameworks and capabilities will need to be in place for impact bonds developed in environments where data collection is a challenge to independently monitor and verify outcomes.

Impact investments—those that seek a specific social or environmental impact alongside financial returns—continue to grow rapidly (Baic, A. et al 2019). As investor interest grows, many investment

firms are building capacity in this area. However, capacity-building programs that seek to support social entrepreneurs in receiving training and improving their creditworthiness for funding need to scale up to overcome these hurdles. Efforts to ensure adequate supply and demand for impact investment include identifying the desired social or environmental outcomes and determining whether existing research verifies that they are achievable and measurable. In Latin America and the Caribbean, impact investments in the WSS sector have ambitious objectives: achieving the SDGs, delivering on the Paris Agreement, and making the human right to water and sanitation a reality. Those objectives will require a historic scaling up of investment in the development and management of water resources and water services.

Strengthening the enabling conditions for investment, maximizing the effective use of existing resources, and mobilizing funding to creditworthy borrowers requires strong governance, preparedness, and monitoring frameworks (ANDE, LAVCA, and LGT Impact Ventures. 2016). The issues surrounding water—its use and abuse, scarcity, relative availability, and cost to consumers—are set to be high on the global agenda for the foreseeable future. With the situation becoming more critical, governments, international development agencies, and businesses are all stepping up efforts to find solutions. This will create a buoyant marketplace for water-related investing in the coming years. Impact investing, with its pragmatic approach to profit and its commitment to delivering social and environmental benefits, has a unique opportunity to engage with this market and influence its positive development.

Notes

1. In financial markets, black swans portray financial performance uncertainties; green swans, in contrast, are positive market developments addressing environmental uncertainties or challenges, once deemed highly unlikely—if not actually impossible; and blue swans are those financial uncertainties related to water risks (scarcity, pollution).
2. A study by Barber, Morse, and Yasuda (2019) charts investor demand (3,500 limited partners, 5,000 funds, and 25,000 capital commitments) for impact funds over traditional options, matching characteristics between the fund and investor, referred to as a limited partner. The demand for impact funds is highest in countries that are signatories to the United Nations Principles for Responsible Investment.
3. This assumes that traditional impact investors would pay for outcomes and accept the possibility of losing their entire capital (ANDE and LAVCA 2018). Impact investors are those who invest for financial as well as social returns, so the KPI definition is the key accountability measure to guide and attract investors. Once the structure of social returns is understood in each instrument, as well as the ESG returns, there can be clarity regarding the investment strategy and the types of bonds that can maximize the likelihood of positive returns.



Glossary

Blended finance: Strategic use of development finance for the mobilization of additional finance toward sustainable development in developing countries (OECD).

Green swans: These relate to the extensive damage in the region due to negative externalities such as the depletion of natural ecosystems, deforestation, and climate change.

Impact bond: An instrument whereby funders repay investors their principal plus a financial return if verified evidence shows that outcomes have been achieved.

Impact investment: An investment made in companies or organizations with the intent to contribute measurable positive social or environmental impacts, alongside a financial return (IFC).

Output-based aid (OBA): Service delivery (especially infrastructure) is contracted out to a third party—public or private—that receives a subsidy after the services have been delivered and independently verified.

Outcome-based funding (OBF) (also referred to as “pay for performance” and “results-based financing”): Financing mechanisms whereby a funder makes payments conditional on achievement of agreed outcomes.

Payment by results (PBR): Payments contingent on the independent verification of results (DFID).

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