

### Key Points

- Sanitation projects require dedicated, sustainable, and long-term financing mechanisms due to their unique nature and significant upfront capital investments involved.
- Choosing the right financial institution is critical for ensuring sustainability and successful implementation of sanitation projects.
- Prioritizing institutional design and establishing effective intermediation and transaction cost mechanisms are necessary to address challenges in long-term financing for CWIS.
- Long-term financing can offer stable and predictable financing options with lower interest rates and longer repayment periods; therefore, it can better align the timing of project costs and benefits, which is crucial for sanitation projects generating benefits over the long term.
- Policy makers and practitioners must prioritize innovative financing models and mechanisms suitable for the sanitation sector to improve public health and environmental outcomes.

# Long-Term Financing for City-Wide Inclusive Sanitation

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## 1. Introduction

The coronavirus disease (COVID-19) pandemic has exposed the long-standing inadequacies in providing clean water and safe sanitation, which remains a critical public health concern. In many parts of the world, access to clean water and sanitation facilities is still a luxury, with millions lacking access to essential services. The pandemic has further exacerbated the situation, as poor hygiene and inadequate sanitation have contributed to the spread of the virus. In this context, the pandemic presents an opportune moment for policy makers to explore innovative infrastructure financing to address the long-standing issue of lack of access to clean water and safe sanitation. Attention must be paid to reaching the poor, ensuring long-term service provision, financial viability, and effective public system functions, which have been largely neglected. Therefore, policy makers must prioritize innovative financing models that provide long-term services, financial sustainability, and equitable access to water and sanitation.

In many developing countries, the current state of urban sanitation is dire. There is a lack of proper infrastructure and limited access to clean water, which has led to poor sanitation conditions, high rates of water-borne diseases, and several other problems. The city-wide inclusive sanitation (CWIS) concept refers to providing safe, equitable, and sustainable sanitation infrastructure and services for all citizens, regardless of socioeconomic status, including those living in informal settlements and low-income areas. CWIS focuses on the entire sanitation service chain, from containment to treatment and disposal, and prioritizes using non-sewered sanitation technologies, such as on-site systems that can be implemented at a scale and affordable cost for all. CWIS is essential for the health and well-being of citizens, as it helps prevent the spread of water-borne diseases and improves overall conditions. It also plays a crucial role in

Several parts of this policy brief are based on the Asian Development Bank Institute–Stanford University Policy Dialogue on Innovative Solutions for City-Wide Inclusive Sanitation held on 6 April 2022. The program was attended by various policy makers, government officials, and development practitioners from 53 participants working in the following countries: Bangladesh, the Philippines, Indonesia, Japan, the United States, the United Kingdom, and several other countries. The authors are grateful for the helpful feedback from Kazushi Hashimoto, Santi Setiawati, ADBI, and colleagues from the Japan International Cooperation Agency (JICA).



promoting economic and social development by creating a healthy environment for investment and growth.

Despite the importance of CWIS, several barriers must be overcome, including inadequate government policies and regulations, limited technical capacity and expertise, and insufficient financing (World Bank Group 2017). One of the most significant issues facing the sanitation sector is the lack of long-term financing. Sanitation projects often involve significant infrastructure, such as water treatment plants, sewage systems, and public toilets. These projects can require significant capital investments, which are often spread out over several years. In addition, the benefits of sanitation projects, such as improved public health and environmental outcomes, are typically realized over the long term.

This policy brief is based on the expert knowledge and discussions from the virtual policy dialogue hosted by the Asian Development Bank Institute (ADBI) and Stanford University in cooperation with the Bill & Melinda Gates Foundation, the Asia Pacific Water Forum, and development partners (the Asian Development Bank [ADB], Japan International Cooperation Agency [JICA], The World Bank, the Islamic Development Bank, and others) on 6 April 2022. This policy dialogue was an essential step toward addressing the issue of CWIS as the event brought together government officials, development partners, and knowledge partners to share expert knowledge and discuss critical issues, such as long-term financing, accountability mechanisms, and community engagement. This event provided a platform for stakeholders to exchange ideas, discuss best practices, and identify opportunities for collaboration. The main objective was to strengthen the “buy-in and demand” for future investments in CWIS from governments. This is essential, as it will allow for sustainable financing and accountability for CWIS projects. The information and insights gained from this event were crucial in informing the recommendations and solutions proposed in the policy brief and helped to build a more comprehensive understanding of the challenges and opportunities in the field of CWIS and how to address them.

## 2. Why Do We Need Long-Term Financing in the Sanitation Sector?

As noted, the sanitation sector requires long-term financing because it involves significant upfront capital investments typically paid off over a more extended

period. In addition, the benefits of sanitation projects, such as improved public health and environmental outcomes, are typically realized over the long term. Short-term financing may be sufficient for some aspects of sanitation projects, such as construction and equipment purchases; however, it typically involves higher interest rates and shorter repayment periods, making large infrastructure investments more expensive and challenging over the long term. In addition, short-term financing may not be well-suited to the revenue models of sanitation projects, which may generate limited or no revenue over the short term.

Long-term financing can provide more stable and predictable financing options for sanitation projects, with lower interest rates and longer repayment periods. This can make financing large infrastructure investments easier and provide borrowers with greater financial flexibility. Long-term financing can also help to align the timing of project costs and benefits, which can be particularly important for sanitation projects that generate benefits over the long term. Finding innovative financing models and mechanisms better suited to the needs of the sanitation sector will help to improve public health and environmental outcomes.

## 3. Actors

Long-term financing for sanitation requires the engagement of various actors, including governments, international organizations, development banks, civil society organizations, and private sector entities. Governments have a crucial role in supporting sustainable financing mechanisms for sanitation infrastructure. They can set policies and regulations that enable sanitation investments and support sustainable financing mechanisms, such as municipal bonds or sanitation taxes. In addition, governments can invest in technical and financial capacity to support sanitation projects. In particular, the government can establish clear responsibilities and roles for all stakeholders that can help create a more sustainable financing model. Relevant parties can improve sanitation practices by ensuring the management of responsibilities, which aims to elucidate the investment obligations at every level concerning the comprehensive utilization of funds, arranging, and advancing sanitation facilities in their respective territories (Bin 2022). However, there are limitations to what governments can achieve on their own. Governments in many developing countries often face significant financial constraints; in addition, the political commitment to sanitation may also be limited,

particularly in contexts where other priorities, such as education or healthcare, are seen as more pressing. Therefore, it is essential for governments to work in partnership with other actors, including international organizations, development banks, and the private sector, to mobilize the resources and expertise needed to address the sanitation crisis.

International organizations and multilateral development banks such as the United Nations, the World Bank, and ADB can provide technical assistance, knowledge sharing, and funding support to help countries develop sustainable financing mechanisms for sanitation infrastructure. First, they can provide specialized services, including advice on developing appropriate legal and regulatory frameworks, designing innovative financing models, and capacity building for sanitation service providers. Second, international organizations and development banks can provide funding for sanitation projects. This can include loans, grants, or guarantees, which can mobilize the resources needed to finance large-scale infrastructure investments. Finally, they can play a role in advocacy and awareness-raising by promoting the importance of sanitation and advocating for increased investment in the sector. However, there are also limitations to what international organizations and development banks can achieve. Many of these organizations have limited resources and may be unable to provide the funding or technical support needed to address the sanitation crisis in all countries. In addition, political and institutional barriers such as corruption or bureaucratic inefficiencies may limit the effectiveness of international organizations and development banks.

The commitment of development partners such as ADB, JICA, and the World Bank, as signatories to the Tokyo Statement on CWIS, is critical in addressing the long-standing water and sanitation crisis. This commitment includes heeding requests from developing countries to increase investments in CWIS, which is essential to achieving universal access to clean water and safe sanitation. Japan's significant financial contributions and technical assistance in water and sanitation services are examples of how innovative financing solutions can be leveraged to address the crisis. Since 2007, Japan has contributed approximately \$10 billion in disbursement through 2015. Also, from 2006 to 2015, JICA provided water supply services for about 35.72 million people and, through technical cooperation, has trained about 42,000 people in water and sanitation

skills (JICA 2017). Japan's contributions highlight the importance of long-term service provision, financial viability, and effective public system functions, critical elements of sustainable development in the water and sanitation sector.

The private sector can also play a critical role in financing sanitation infrastructure by providing funding, expertise, innovation, and management support. Private sector entities can invest in innovative financing models such as public-private partnerships (PPPs), impact investing, or blended finance. In addition to financing, the private sector can provide technical expertise, innovation, and management support to ensure sustainable sanitation infrastructure operation and maintenance. Private sector entities can bring innovative solutions to sanitation challenges, such as developing new technologies or business models. They can also play a management role, including designing, implementing, and operating sanitation projects. However, there are also limitations to what the private sector can achieve. Private sector entities may focus on profit rather than social and environmental impact, which can limit their willingness to invest in sanitation projects. Consequently, private investment may not be well-suited to certain types of sanitation projects, such as those in remote or low-income areas. Finally, regulatory barriers may limit the potential for private sector investment, such as restrictions on private sector involvement in water and sanitation services.

Finally, civil society organizations (CSOs) can play a critical role in addressing the issue of long-term financing for sanitation infrastructure. They can raise awareness of the importance of sanitation among communities and policy makers, promote public participation in decision-making processes, and advocate for sustainable financing mechanisms. CSOs can also monitor and evaluate activities to ensure that sanitation projects are implemented effectively and efficiently and deliver the intended social and environmental benefits. One of the critical limitations of CSOs is their limited technical expertise and capacity needed to advocate the implementation of sustainable financing mechanisms. CSOs may face political and institutional barriers, such as limited access to decision-making processes, corruption, or bureaucratic inefficiencies, which can limit their effectiveness in advocating for change. CSOs can also leverage their local knowledge and networks to support the design and implementation of sustainable financing mechanisms. Table 1 presents a comprehensive analysis of the topic.

**Table 1: Actors, Roles, and Limitations in Long-Term Financing for Sanitation**

Actors	Roles	Limitations
Governments	Set policies and regulations, invest in technical and financial capacity	Financial constraints, limited political will
International organizations and development banks	Provide technical assistance, funding support, and advocacy	Limited resources, political and institutional barriers
Private sector	Provide funding, expertise, innovation, and management support	Focus on profit, limited suitability for certain types of projects, regulatory barriers
Civil society organizations	Raise awareness, promote public participation, engage in monitoring and evaluation, advocate for sustainable financing mechanisms	Limited financial resources, limited technical expertise, political and institutional barriers

Source: Authors.

#### 4. Challenges in Implementing Long-Term Financing for Sanitation

One of the challenges in scaling up CWIS projects is the high transaction costs associated with geographically distributed systems and fragmented governance. These can include legal and administrative expenses and costs associated with coordinating multiple stakeholders. To address these challenges, project bundling, and blended financing can be used to reduce transaction costs. Project bundling involves grouping several small-scale projects to create a larger, more financially viable project. The larger project financing reduces the relative impact of the transaction costs of the financing. Blended financing combines different types of financing, such as grant funding, debt financing, and equity financing, to reduce the overall transaction costs. Additionally, national-level counterparties and capacity development can improve stakeholder coordination and reduce administrative costs.

Another CWIS challenge is the “unit economics”, meaning the affordability of individual households, willingness to pay, collection risk, and sense of ownership. These challenges can be addressed using availability-based mechanisms, user fee subsidization, and philanthropic financing. Availability-based mechanisms involve charging users for services’ availability rather than usage. This can help to ensure that households can afford the services and are more likely to use them. User fee subsidization can reduce the financial burden on low-income families, making the services more affordable. Philanthropic financing can provide additional funding for CWIS projects, particularly in areas with a high collection risk or low willingness to pay.

Another challenge is counterparty risk, which arises from the fragmented sector governance and political risk and refers to the possibility that the other party in a financial transaction will not fulfil their obligations. To address this, sovereign counterparties/guarantees, multilateral/bilateral co-investments, local partnerships, and capacity development can be used. Sovereign counterparties/guarantees involve the central government acting as an additional counterparty to the financial transaction, which can help to reduce counterparty risk. Multilateral/bilateral co-investments involve multiple parties investing in a project together, which can help to spread the risk among various parties. Local partnerships can involve local stakeholders in the project, which can help build support for the project and reduce counterparty risk. Finally, capacity development can be used to develop the capacity of local stakeholders to manage and operate the project, which can help to minimize counterparty risk.

Investment risks are also a big challenge in scaling up CWIS projects, particularly concerning currency and limited ex-ante returns due to political events. Currency risk refers to the risk that exchange rate changes will affect an investment’s value. Access to blended financing, limited hedging instruments, and long-term official development assistance (ODA) can be used to address these challenges. Blended financing can help to reduce currency risk by combining different types of financing, such as grant funding, debt financing, and equity financing. Limited hedging instruments can manage currency risk by reducing the exposure to changes in exchange rates. Long-term ODA can fund CWIS projects, which can reduce the risk of political interference and ensure that the projects are sustainable. This analysis is presented in Table 2.

**Table 2: Challenges in Implementing Long-Term Financing for Sanitation**

Topic	Issues	Solutions
Transaction costs to upscale projects	Geographically distributed systems, fragmented governance, high transaction costs	Project bundling, blended financing for transactions costs, national level counterparties, capacity development
Unit economics	Individual affordability, willingness to pay, collection risk, sense of ownership	Availability-based mechanism, user fee subsidization, philanthropic financing
Counterparty risk	Fragmented sector governance, political risk	Sovereign counterparties/ guarantees, multilateral/ bilateral co-investments, local partnerships, capacity development
Investment	Currency risk, ex-ante returns limited by political risk	Access to blended financing, limited hedging instruments, long-term official development assistance

Source: Bennon (2022).

## 5. Options for Long-Term Financing

Several options are available for long-term financing of sanitation projects, each with advantages and limitations. One option is government budget financing, which involves allocating funds to sanitation projects. This is common in high-income countries where governments have the financial resources to invest in sanitation infrastructure. On the positive side, government budget financing can provide a stable, predictable, and reliable funding source for sanitation projects. Moreover, government financing can ensure sanitation projects align with broader policy objectives and priorities, such as equity, environmental sustainability, and public health. However, potential drawbacks include competition for limited government resources and political and economic uncertainties, leading to funding cuts or delays in project implementation. In addition, there may be inefficiencies and bureaucratic hurdles in allocating and managing government funds, which can lead to delays and cost overruns.

Another option for long-term financing of sanitation projects is impact investing, which involves generating social and environmental impact and financial returns. Impact investing can mobilize private capital to support the delivery of sanitation services and help reduce overall costs. Impact investing can also provide opportunities for investment in underfunded areas and industries, such as sanitation projects, that traditional investments may overlook. However, impact investments have some limitations, including the difficulty in measuring and evaluating their impact and the potential for lower returns than conventional investments. Additionally, impact investing has some potential drawbacks that need to be considered by policy makers. First, impact investors

may have shorter time horizons and lower risk tolerance than government budget financing, leading to a focus on shorter-term and less risky projects. Second, impact investing may not be able to provide the same level of funding as government budget financing, especially for large-scale sanitation projects. Third, impact investing may be subject to market and financial uncertainties, leading to funding and availability fluctuations.

PPPs are another option for long-term financing of sanitation projects as they have the potential to address the CWIS financing gap and improve the efficiency and effectiveness of service delivery.

PPPs are increasingly used to implement sanitation projects, given their potential to attract private sector investment and expertise. However, PPPs are not without limitations:

- Given the subsidies and free services provided in the sanitation sector, they may have limited scope for revenue generation.
- PPPs can be complex, time-consuming, and involve high transaction costs, which may make them less suitable for small-scale or localized sanitation projects.
- PPPs require risk sharing between the public and private sectors, which may create uncertainties and challenges in managing risks associated with project delays, cost overruns, and regulatory or market condition changes.
- PPPs may limit public oversight and accountability for service delivery and quality.
- PPPs require technical and financial expertise, which may be lacking in some countries or regions.

To overcome these limitations, policy makers must ensure that PPPs are carefully designed and managed. This requires developing robust legal and regulatory frameworks, providing adequate public oversight and accountability, and investing in building technical and financial capacity among sanitation service providers and private sector partners. It is also essential to ensure that PPPs are aligned with broader policy objectives, such as promoting equity, environmental sustainability, and public health.

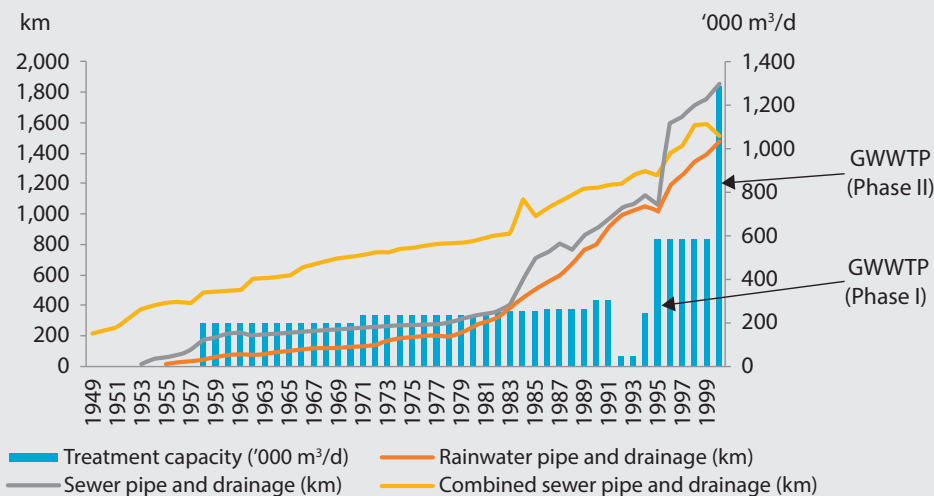
Public borrowing is another option for long-term financing of sanitation projects. Public borrowing can provide stable

and predictable financing options for sanitation projects, with lower interest rates and longer repayment periods. This can make financing large infrastructure investments easier and provide borrowers with greater financial flexibility. Noting that stabilized financing is essential to ensure the growth of sanitation management systems (Setiawati 2022), loan financing can also align the timing of project costs and benefits, which can be particularly important for sanitation projects that generate benefits over the long term. However, loans may not be suitable for all sanitation projects, particularly those in lower-income countries, where there may be limited access to credit or where the interest rates may be unaffordable.

### Box: Beijing Gaobeidian Wastewater Treatment Plant

The inaugural wastewater treatment plant in the People's Republic of China (PRC), the Beijing Gaobeidian Wastewater Treatment Plant (GWWTP) (Phase I), was finalized in 1993 with a foreign loan, providing the PRC with a water treatment capacity of 500,000 cubic meters per day (Qu et al. 2019). The GWWTP (Phase I) succeeded by using long-term foreign loans and technical cooperation to overcome finance, technology, and experience gaps. The plant provided training programs for future leadership and implemented a wastewater tariff to cover operational costs while expanding sanitation investment. The central government's policies and plans were also embodied locally, accelerating urban sanitation. Quick door-to-door connections were constructed while considering neighborhoods that could not be connected to the sewerage system. These measures allowed the GWWTP to provide much-needed wastewater treatment services, promoting sustainable development and economic growth. The plant's success demonstrates the importance of effective planning, leadership, and cooperation in critical public infrastructure projects. A good example of the utilization of long-term financing in sanitation is in Figure B.1, which illustrates the total length of drainage pipes and total wastewater treatment capacity in Beijing from 1949 to 1999. The GWWTP was able to overcome finance, technology, and experience gaps using long-term foreign loans and technical cooperation, ultimately providing much-needed wastewater treatment services and promoting sustainable development and economic growth.

**Figure B.1: Total Length of Drainage Pipes (left axis) and Total Wastewater Treatment Capacity (right axis) in Beijing, 1949–1999**



GWWTP = Beijing Gaobeidian Wastewater Treatment Plant.

Note: Indicators such as sewage treatment capacity in 1992 and later for the secondary treatment of wastewater; before 1992 for the primary treatment level.

Source: Kitano (2022).

Another long-term financing option for CWIS projects is blended financing, an innovative approach that combines different sources of capital, such as grants, loans, investments, and other sources, to fund development projects. This approach can be seen as a possible solution since it can attract additional funding by incentivizing private sector investment and offering a mix of grants and loans to mitigate the risks associated with investing in sanitation. However, despite its potential benefits, blended financing has several limitations, such as its complexity (OECD 2018). Coordinating multiple funding sources with different requirements and objectives can be challenging and time-consuming, leading to delays in project implementation, increased transaction costs, and limiting the effectiveness of the projects. Another limitation of blended financing is the availability of funding as it relies on diverse funding sources, including grants, concessional loans, and private investment, that may be limited in some low-income countries.

Furthermore, while blended financing can provide funding for sanitation projects in the short term, the long-term sustainability of these projects may be uncertain. This is particularly true for projects that rely heavily on grants, which may not be sustainable over the long term. Finally, blended financing requires a certain level of local capacity to manage complex financing structures and ensure the effective use of funds. In many low-income countries, however, there may be limited capacity to manage blended financing.

A dedicated fund is another option for long-term financing of sanitation projects. This fund can be financed through various sources, such as government contributions, donor funding, or private sector investments. The advantage of a dedicated fund is that it is stable and predictable, which can help to attract additional investment and reduce the overall costs of providing sanitation services. A dedicated fund can also help to ensure that sanitation projects are prioritized and receive the necessary funding, even in contexts where other priorities may be seen as more pressing. However, there are also limitations to this approach. A dedicated fund may require significant upfront capital investments, which can be challenging to secure. In addition, the success of a dedicated fund may depend on the political will and commitment of governments and other stakeholders to support sanitation infrastructure projects. Finally, there may be challenges in identifying and prioritizing which projects should receive funding from the dedicated fund. Despite these limitations, a dedicated fund can be an effective option for the long-term financing of sanitation projects, particularly in contexts where there is a need for stable and predictable financing options. To explore the various ways in which long-term financing can be utilized in sanitation, Table 3 outlines several options, including government budget financing, impact investing, PPPs, loan financing, dedicated funds, and blended financing.

**Table 3: Long-Term Financing Options**

Long-Term Financing Options	Advantages	Limitations
Government Budget Financing	Stable, predictable source of funding	Competition for limited resources; political and economic uncertainties
Impact Investing	Mobilizes private capital; opportunity for investment in underfunded areas	Difficulty in measuring and evaluating impact investments; potential for lower returns
Public–Private Partnerships	Attracts private sector investment and expertise; improved service quality and efficiency	Limited scope for revenue generation; complex and time-consuming; high transaction costs
Loan Financing	Stable and predictable financing options; lower interest rates and longer repayment periods	Not suitable for all sanitation projects; limited access to credit in lower-income countries
Dedicated Fund	Stable and predictable source of financing; prioritizes sanitation projects	Requires significant upfront capital investments; dependent on political will and commitment; challenges in identifying and prioritizing projects
Blended Financing	Mobilizes additional resources; attracts private sector investment	Limited availability due to its highly complex nature; lack of local capacity

Source: Prepared by authors.

## 6. Addressing Challenges in Institutional Design for Long-Term Financing CWIS

Institutional design is critical to financing CWIS projects in developing countries. The financing of CWIS projects can be complex, with challenges such as high transaction costs, counterparty risks, and limited investment options. Addressing these challenges requires a comprehensive approach that includes the development of institutions that can effectively implement financing solutions. This section will explore various institutional design options for managing transaction costs, providing public counterparty support, improving intermediation, and utilizing blended financing and PPPs to support CWIS projects. By understanding the various institutional design options available, policy makers can make informed decisions about how to effectively finance and implement CWIS projects.

Addressing transaction costs is a crucial aspect of institutional design for financing solutions in CWIS. To address this challenge, the government can educate and empower stakeholders to better understand the financing options and make informed decisions about implementing CWIS projects. Additionally, regional knowledge sharing can also help stakeholders to learn from the successes and failures of others and use this information to improve their projects. Policy makers can also identify institutional and policy barriers causing high transaction costs to reduce the costs of CWIS projects by mapping out a pipeline of projects and local partners and streamlining the project development process. It is also essential to collect and publish data on CWIS to help stakeholders better understand the costs and benefits of different financing options. Incorporating these strategies into an institutional design for CWIS financing solutions can help to reduce transaction costs.

Managing counterparty risk is a crucial aspect of institutional design for financing solutions in CWIS. One approach to achieve this is through multi-phase opportunity screening, which allows stakeholders to identify potential projects and assess their feasibility and risk. Additionally, institutional consolidation and leadership can help reduce counterparty risk by ensuring that a single, accountable entity manages the project.

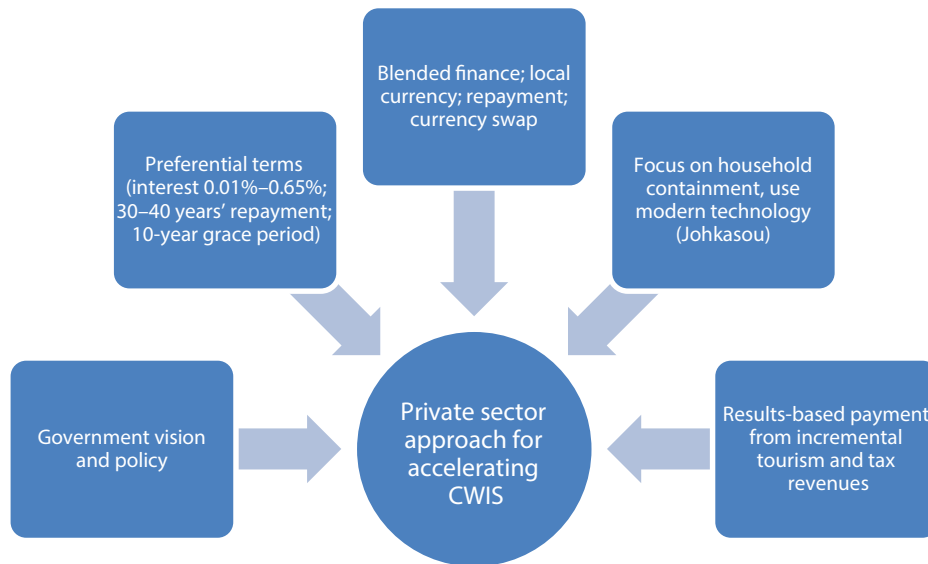
Another strategy is to assess the legal or contractual framework of the project to ensure compliance with local laws and regulations and that necessary contracts and agreements are in place. Furthermore, local partnership development can help build project support, reduce counterparty risk, and ensure long-term sustainability.

Effective intermediation is also crucial as it is necessary to facilitate international investment and align project risk with investor mandates. One strategy to achieve this is through blended financing, which can help to reduce risk and attract international investors. Another approach is to build development track records and pilot new distributed investment models. This can help to demonstrate the feasibility and attract investment from a broader range of investors. Incorporating these strategies into an institutional design for financing solutions can facilitate international investment, align project risk with investor mandates, and make it more feasible.

To complement the above institutional design, the private sector also has the potential to bring much-needed investment, expertise, and innovation to accelerate the development of CWIS. Policy makers can create a supportive ecosystem that incentivizes private sector involvement and ensures the success and sustainability of CWIS by implementing the above-mentioned measures. Such an ecosystem should be underpinned by government vision and policy encouraging private sector participation. Additionally, preferential terms such as low-interest rates, extended repayment periods of 30–40 years, and a 10-year grace period are necessary to attract private sector investment. Blended finance, local currency repayment, and currency swaps also provide necessary financial support. To ensure the effectiveness of CWIS, a focus on household containment and modern technology such as Johkasou is essential. Finally, to provide sustainability, incremental tourism and tax revenues should be directed to the results-based payment of CWIS. Policy makers should prioritize these ecosystem components to facilitate private sector participation and achieve CWIS development goals. Figure 1 presents an ideal ecosystem for CWIS, showcasing the private sector's potential to accelerate the implementation of this critical infrastructure. Through a multi-stakeholder approach, CWIS can be achieved and sustained, providing universal access to sanitation services and improving public health and environmental outcomes.



**Figure 1: Ideal Ecosystem for City-Wide Inclusive Sanitation**



CWIS = city-wide inclusive sanitation.

Source: Authors.

## 7. Conclusion

In conclusion, the lack of long-term financing for CWIS impedes achieving universal access to sanitation services. The unique nature of sanitation projects and the high costs involved require dedicated funds and sustainable financing mechanisms. While there are various options for financing sanitation projects, choosing the right financial institution is critical to ensure sustainability and successful implementation. To address the challenges in long-term financing for CWIS, it is essential to prioritize institutional design and establish effective intermediation

and transaction cost mechanisms. Governments, private sector actors, and international organizations must work together to develop innovative financing solutions that address the needs of the sanitation sector. The benefits of investing in CWIS are immense and far-reaching, from improved public health to economic growth and poverty reduction. Therefore, we must continue prioritizing and investing in sustainable long-term financing solutions for CWIS. By doing so, we can ensure that everyone, regardless of socioeconomic status, has access to safe and reliable sanitation services, contributing to a healthier, more sustainable world.

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