
Methodology for country-level diagnostic assessment of opportunities for Development Partners to catalyse blending of finance for climate resilient WASH

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1. INTRODUCTION

The Water Section (in the Climate Change and Sustainability Division) of the Department of Foreign Affairs and Trade (DFAT) is initiating the design of future investments in Water, Sanitation and Hygiene (WASH) services, water security and climate change resilience and mitigation. As part of this process, the Section sought advice on how blended or innovative finance approaches can be incorporated in future programs to increase access to WASH at scale, and influence the nature of WASH service delivery towards more climate-resilient and sustainable services.

To achieve SDG targets, a significant scale up in investments is required. Blended finance is one of several approaches to financing the SDGs and has been widely implemented since the Third International Conference on Financing for Development in 2015, where UN member countries reached agreement on its significance.¹

WaterAid's blueprint report² estimates average climate adaptation costs for WASH across 233 economies at US\$ 83 billion annually, with new and existing global costs to reach safely managed climate resilient WASH by 2030 at US\$ 1.4 trillion. Donor and aid financing, plus national and subnational funding, currently achieve only 2.5% to 18.5% of capital investment requirements.

Blended finance's ability to deploy public funds to attract private investments is evidenced by the increased private capital flows to the SDGs from UN member countries, averaging at US\$ 9 billion per year over the past five years. For blended finance to achieve full potential, finance flows must increase significantly through more efficient provision of concessional capital, supplemented by commercial and private investments.

This paper also aims to provide or influence content for the Water & WASH Futures Conference and Symposium. The Water & WASH Futures Conference, planned for February 2023 and delivered by the International WaterCentre, will be preceded by a virtual Symposium on Water, WASH and Climate resilience. Blended financing for development, especially WASH, will be a theme at the Symposium as well as at the Conference. Material from this document will play an important role in guiding the identification of useful lines of discussion/exploration through these events, and, in providing content for panel sessions, keynotes and workshops in the Symposium and Conference.

Findings, methodology and assessments, are intended primarily for DFAT's internal use, though most will also have relevance to, and be of interest to, other Development Partners, WASH service providers and other WASH actors such as governments and civil society organisations that support WASH service delivery.

This project builds on previous research, conducted earlier in 2021 by Lean Finance, Aguaconsult and International WaterCentre. That research explored five examples of how blended financing has been applied to the WASH sector in the recent past. The research report summarised lessons learnt to inform the identification and preparation of pathways for future DFAT WASH programming, which could include the use of blended financing to scale-up or improve the impacts of WASH activities. The report recognised that new arrangements and strategies should inevitably reflect innovations and evolving place-based strategies, based on best practices.

The report also indicated different development roles for DFAT to create sector systems change through partnerships that unlock funding. These roles would seek to build an enabling environment conducive to blended financing for WASH and climate change resilience. Four major application areas for development are identified:

¹ Convergence, The state of blended finance, 2021

² WaterAid Blueprint: financing a future of safe water, sanitation and hygiene for all, May 2021

1. Developing a strong “WASH and innovative finance enabling environment”: includes building capacity for the development and implementation of appropriate regulations, policies, monitoring and other enabling environment functions to protect consumers, encourage inclusion, redress exclusion, facilitate investments, and promote demand for WASH.
2. Attracting and developing investors (“supply”).
3. Supporting intermediaries, especially in fulfilling their role of conducting assessments, supporting WASH enterprises and measuring success.
4. Developing WASH enterprises (to create “demand”).

One of the key recommendations of this research was that DFAT’s activities will need to be context-specific, given the influence of local factors in creating opportunities for blending finance for WASH. It was recommended that country-level understanding of the WASH and financial ecosystems is required.

This project has designed a diagnostic method for DFAT. The goal has been to help DFAT guide potential investments and activities that catalyse blended finance for WASH by adopting the **country-level diagnostic method** described in this report. The diagnostic helps identify specific opportunities for DFAT, and specific activities that DFAT can invest in or undertake to increase the scale of WASH in a specified country, through partnerships with private and commercial sector parties.

2. DIAGNOSTIC ASSESSMENT METHOD

REVIEW OF EXISTING DIAGNOSTIC ASSESSMENT METHODS

Prior to developing a diagnostic assessment method specific to DFAT's needs for WASH financing, a rapid review of existing and similar assessment methods was undertaken. In addition, a rapid review of the academic literature on the topic has been undertaken to provide a foundation of understanding for the diagnostic assessment methodology. Valid components of previously developed diagnostic assessment methods will be applied in developing the methodology documented in this report.

There are no specific diagnostic assessment methods for WASH available, or at least none that could be followed without significant adaption. This is the case despite increasing focus on innovative and blended finance initiatives as avenues to mobilise private capital to achieve specific Sustainable Development Goals (SDG's). And yet there is a need for such a method, not least because investing in financial innovation has become a key focus for various international organisations, and they require structured approaches for assessing the readiness of each aspect of the financial sector for investment (IDA, 2021).

There is significant and increasing support for the integration of blended finance innovations as a vital component of achieving the Sustainable Development Goals (SDGs) (Halland, Dixon, In, Monk, & Sharma, 2021; Handayani & Surachman, 2020; Sergi, Popkova, Borzenko, & Przhedetskaya, 2019). However, some authors consider that WASH SDGs may not be achieved regardless of innovative finance initiatives (Nhamo, Nhemachena, & Nhamo, 2019). Some authors have highlighted structural issues in financing the WASH sector, so that that even with blended finance, the most efficient approach is likely to require *long-term* commitment (Libey, Adank, & Thomas, 2020).

Blended finance solutions have been analysed for their potential in scaling-up various important, SDG-related initiatives ranging from forestry (Löfqvist & Ghazoul, 2019; Rode et al., 2019), climate (Agbemabiese, Nyangon, Lee, & Byrne, 2018; Bracking & Leffel, 2019), ocean (Sumaila et al., 2020; Whisnant & Vandeweerd, 2019), clean energy (Tonkonogy, Brown, Micale, Wang, & Clark, 2018), health (Kiiza, Nassimbwa, & Mulumba, 2019), landscapes (Shames & Scherr, 2020), food systems (Apampa et al., 2021), sustainable energy (Neofytou, Nikas, & Doukas, 2020), and precision medicine (Gong, 2020).

Authors have noted that innovative finance in the WASH sector has two equally important outcomes: increasing access to finance and increasing the ability for the sector to absorb that finance (Alaerts, 2019). Alaerts (2019) argues that as the impacts of climate change become more widespread, "the long-term interests of the water and financial sectors will converge" (p1). Authors have also highlighted the importance for the foundational issues within the WASH sector to be addressed with equal priority to blended finance innovations (Pories, Fonseca, & Delmon, 2019). This highlights the alignment between seeking a methodology to diagnose the potential for blended finance in the WASH sector in target countries.

In assessing the readiness of the sustainable energy sector for innovative finance, Neofytou et al. (2020) used eight criteria: public awareness and acceptance; human capital; political will; RISE Index; financial market sector soundness; ease of doing business; carbon lock-in; and infrastructure and innovation. Each of these eight criteria were allocated different weights depending on their relevance based on available literature and data on the topic. This illustrates that the development of "readiness methodologies" are becoming increasingly important for different sectors. However, each methodology must be developed with regard to the requirements for a specific sector. It is evident when considering the criteria used by Neofytou et al. (2020), that it is not possible directly to apply these to the same project but in the WASH sector.

While investment in the WASH sector via blended finance is undoubtedly beneficial, it is important to consider and integrate cultural specificities into the methodology and the interpretation of results. This has been highlighted in other sectors, particularly with regard to the extremely high educational performance of Vietnam in the Program for International Student Assessment (PISA), despite very low income and investment levels (Asadullah, Perera, & Xiao, 2020). Hence, the comparative assessment of blended finance opportunities requires interpretation through a cultural lens as well as a structural lens. This approach ensures that investment in inclusive markets via blended finance is leverages cultural strengths rather than counteracts those strengths. This point is particularly relevant for the WASH sector, where the differences in use and payment for services is dramatically different across income groups (Libey et al., 2020). These authors also highlight the importance of WASH investments (through blended finance or otherwise) to include significant investment in the *maintenance* of infrastructure rather than following the current norm of *building new* infrastructure (Libey et al., 2020).

The focus on female empowerment and agency is a core component of all discussions relating to the WASH sector, including the design of diagnostic methods. This is evidenced by the previously developed “Empowerment in Water Sanitation and Hygiene Index (EWI)”, which is used to determine WASH-related gender empowerment and decision-making at the household level (Dickin, Bisung, Nansi, & Charles, 2021). Developers of the EWI index highlight the importance of including key gender topics when measuring innovative finance initiatives: for example, measuring different outcomes by gender in order to address gender disparities (Dickin et al., 2021).

It is critical to include gender disparities in methodological designs because gender equality has the potential to dramatically increase the social and economic development of target countries. Authors have found that female empowerment is achieved through access to WASH sector resources. This empowerment results from increased access to the labour market, increased involvement in community events, higher educational outcomes and lower levels of stress (Bisung & Dickin, 2019). However, these authors have noted that it is not only through access to WASH infrastructure that this empowerment occurs, but that there are many other associated factors such as participation levels and social norms (Dery, Bisung, Dickin, & Dyer, 2020). Previous diagnostic assessments have not directly considered gender disparities in their methodologies.

There are several existing principles, guidelines, and roadmaps produced by development organisations to inform the formulation of blended finance strategies. From a strategic perspective, the OECD Development Policy Paper on Financing for Stability has highlighted how tactical investments can incentivise stakeholders (and communities) towards the creation of enabling conditions and the development of public goods.

The proposed method for DFAT in this paper is based on best practices and recommendations, following literature reviews of similar activities described by OECD, DFC, IFC, UN, USAID.

Of particular value is USAID’s blended finance Roadmap for Global Health (“USAID Roadmap”). There are various components of the USAID Roadmap that provide valid and reliable contributions to any method for undertaking a country diagnosis of blended finance readiness. One of USAID’s main contributions is the inclusion of quantitative measures in the form of selected publicly available data. Another strength of the USAID Roadmap is that it prescribes a root-cause analysis to ensure that any solutions implemented resolve critical problems underlying WASH outcomes. The focus on defining the problem via a root-cause analysis is tailored to the specific issues and their underlying causes.

Based on these strengths, the diagnostic assessment method developed herein incorporates publicly available indicators and other variables relevant to the WASH sector, as well as including broader metrics (compared to USAID) for the financial sector assessment. In addition, the diagnostic assessment method aims to identify key drivers influencing financial sustainability of the market-based WASH sector.

OECD papers outline five major principles of blended finance, which are useful to consider in a diagnostic assessment:

- 1) Anchoring blended finance use to a development rationale (by using development finance as a driver to maximise development outcomes and impact, based on development objectives and expected results, and to gain high-quality commitment to accountability, reporting and transparency).
- 2) Designing blended finance to increase the mobilisation of commercial finance by ensuring additionality for crowding in commercial finance: minimise concessionality; deploy blended finance to address market failures; and aim to achieve commercial sustainability through following coherent approaches that facilitate market development.
- 3) Tailoring blended finance to local contexts to support local development priorities: create an enabling environment; foster effective local partnerships; increase capacities of local institutions; crowd in domestic finance; and promote local currency.
- 4) Focusing on effective partnering for blended finance: enable each party to engage based on their respective development or commercial mandate while respecting others' mandates; allocate risks in a targeted, balanced, and sustainable manner; and aim for scalability.
- 5) Monitoring blended finance for transparency and results: agree on performance metrics from the start; track financial performance and development impacts; apply dedicated resources; and ensure the public transparency and accountability of blended finance operations.

The OECD blended finance papers discuss the lack of available data to fully inform the state of the market and sector specifics. In response, the proposed WASH and blended finance diagnostic assessment method takes this into consideration and combines broad proxies (as per the USAID method) with other critical factors attributable to the sector. This combination is consistent with insights drawn from work that DFAT has undertaken to date in countries of interest with local partners and will lead to a more complete assessment of the potential and risks for blended finance.

The Tri Hita Karana blended finance roadmap, facilitated by OECD, places blended finance initiatives as “pivotal”, having a “marginal impact” on achieving SDGs, offering important support for COVID recovery and providing a means of strengthening small and medium enterprise resilience. The roadmap recommends using blended finance to mobilise commercial finance, to design blended finance vehicles with commercial sustainability in mind, and to structure such initiatives so as to build inclusive markets. Previous literature has identified that the key issue for building inclusive markets has been investors' unwillingness to take risks (Shahnaz, 2021). Shahnaz (2021) has indicated that in order to improve the risk-return profile for innovation and investments in building inclusive markets, assessments of investment readiness along with capital raising support are key tasks. That a significant innovation, such as blended finance, is critically needed as a long term solution becomes obvious when confronting the following quantitative reality of WASH market failure: the gap between consumer spending and the cost of running water utilities ranges from US\$ 1 to US\$ 17 per year (Libey et al., 2020).

The Development Finance Corporation's Roadmap for Impact is aiming to develop a funding pool to support joint investments with regional partners to make projects bankable in difficult markets. The intent is to use blended finance to expand reach, optimise risk sharing and increase development impact, and to provide pioneering firms, small and women-owned businesses, and other private sector partners with the tools and training they need to succeed.

The United Nations recommendations for blended finance initiatives are focused on strong alignment with national priorities, promotion of country ownership, sustainable development impact, fair risk and rewards sharing with private partners, minimal concessionality, clear accountability mechanisms, transparency, effective management, accounting, budgeting for contingent liabilities, debt sustainability and active participation by local communities in decisions that affect them. Seeking local national ownership outcomes provides a means of ensuring long-term project sustainability. For this reason, the proposed diagnostic methodology includes assessing the likelihood or potential for national ownership.

The International Finance Corporation provides the most comprehensive overview of blended finance practices based on decades of IFC's own experiences in dealing with the private sector. The IFC recommends practical steps and tools for blended finance projects, backed up by an evidence-based development rationale which takes into account any existing market distortions. The goal is to scale up private investments and achieve target investment returns. IFC's recommendations are strongly embedded in the proposed method.

Pories et al. (2019) assessed the foundations for mobilising finance for WASH and identified that the success of innovative blended finance initiatives depends on 10 foundational issues. The 10 issues include tariff setting; transparent accountability; service provider mandates; financial and operational management; legal framework; risk profile for investment; market distortions; and targeting investment for maximum impact. This paper highlights that the three key issues are: access to finance; government; and service providers. It is interesting to see how the academic approach in isolation fails to capture the intricacies of stakeholder perspectives and the logistics of actually mobilising finance in a sustainable manner.

From the literature review summarised above it is clear that none of the previously documented diagnostic assessment methodologies are able to be directly applied to the WASH sector based on current DFAT priorities. Hence, it is proposed that the methodology developed and communicated in this report should incorporate not only core components of the OECD framework, but also significant and overlooked factors from the other reports and previous research.

PROPOSED DIAGNOSTIC ASSESSMENT METHOD FOR DFAT'S INVESTMENT

1) Rationale and purpose

The proposed diagnostic assessment provides DFAT with a practical approach for evaluating opportunities and developing programmes that catalyse blended finance programs in a specific country of interest. Although DFAT has supported or engaged in private sector participation in WASH service delivery, the approach to date has been opportunistic. DFAT's experiences, together with the practices of other Development Partners, have shown the potential role for blended financing in achieving WASH outcomes.³

Blended finance for WASH offers DFAT opportunities to become more **efficient, purposeful, and strategic** in its stakeholder and market engagement. The purpose of the method is to inform DFAT on the status of the WASH sector and its attractiveness to private sector financing and to assist in planning future interventions and programs in the country that mobilise private sector investments and apply blended finance modalities to the WASH sector.

The purpose of such blended finance programs is to use DFAT funding to leverage additional private or institutional finance and thereby contribute to sustainable development and to achieving "effects" – such as scaled impacts and systemic change – which would not have been achieved without blending. Thus, blended finance brings along development and financial additionality to traditional DFAT interventions and modalities (e.g., technical assistance or grants). It provides opportunity for DFAT to become an investor in the sector, supplying capital which is important to sectoral ecosystem and demonstrating potential for such investments to the private sector.

In addition, blended finance offers another avenue by which Development Partners such as DFAT, can influence the quality and characteristics of WASH services. Such characteristics that might be prioritised include WASH services that are socially inclusive in terms of the accessibility of services delivered, the service delivery workforce, and the management and governance of WASH services. Prioritising or encouraging WASH services that are climate resilient, or perhaps also contribute to climate mitigation, is another key characteristic that Development Partners could seek to influence through their investments.

Exactly what constitutes "climate resilient WASH" is context specific – influenced by the specific climate hazards, the water resources and environmental systems, infrastructure options (recognising the need to leverage existing infrastructure where possible, and local adaptive capacities (to mitigate and cope with climate change). Thus significant investment in research and development may be required to ensure local capabilities exist. This is on top of the additional expense of mobilizing and sustaining climate-resilient WASH services in comparison to conventional WASH services (WaterAid, 2021), thus further reinforcing the requirement leveraging public finance with private.

It is evidential, that all investors, Development Partners or private sector, shift investments away from business and services that are not both socially inclusive and climate resilient. This includes WASH businesses and services. It is imperative that WASH sectors rapidly acquire the capabilities and capacity to enable and implement climate resilient and socially inclusive WASH services; doing so increases the competitive and attractiveness of this sector as a whole to investors and reduces the risk of a decline in future investments due to favouring of other sectors that meeting these requirements.

Development Partners can assist in readying WASH sectors for future larger scale investment by influencing the development of those capabilities and capacities required for socially inclusive and climate-resilient WASH. This influence can be achieved in a number of ways. Development Partners can invest in the enabling environments to

³ IWC, Aguaconsult, Lean Finance "Case study assessment: blended finance in Water, Sanitation and Hygiene (WASH) – Lessons for DFAT", July 2021

strengthen these particular characteristics of WASH services, for example, supporting development of policies, regulations, capacity development opportunities, monitoring and evaluations, to favour, inform or regulate climate resilient and socially inclusive WASH services. Development Partners could also specify climate-resilient, socially inclusive, criteria for eligibility of WASH businesses to access blended finance funds.

This diagnostic assessment tool identifies and assesses the status of the “must have” features that indicate the circumstances under which blended finance programs might offer **acceptable risk** and **probable value**.

The objectives of this diagnostic assessment were to identify current requirements, limitations, and opportunities for the application of blended financing approaches to scale-up water, sanitation and/or hygiene services in Cambodia. In particular, the specific objectives were to identify specific aspects of WASH services, as well as the enabling environment that governs, supports and influences WASH services, for which: (i) additional finance is required in order to scale-up; (ii) blended finance is an appropriate and feasible finance mechanism; and (iii) the enabling environment and WASH market are conducive to this approach.

This method allows DFAT to design and implement a **programmatic whole-of-system approach (Figure 1)** to WASH financing in any target country with a help of blended finance.

A whole-systems approach, combined with financing innovations, are critical to holistic development programs that drive systemic change. In particular, they enable targeting of resources and investments to areas of critical need, and minimises the risk of failure associated with investing in only isolated parts of the system without recognizing the dependencies on other system parts which may also be weak. Simultaneously or sequentially investing in multiple levers and weak system components reduces the likelihood of failing to realise impact.

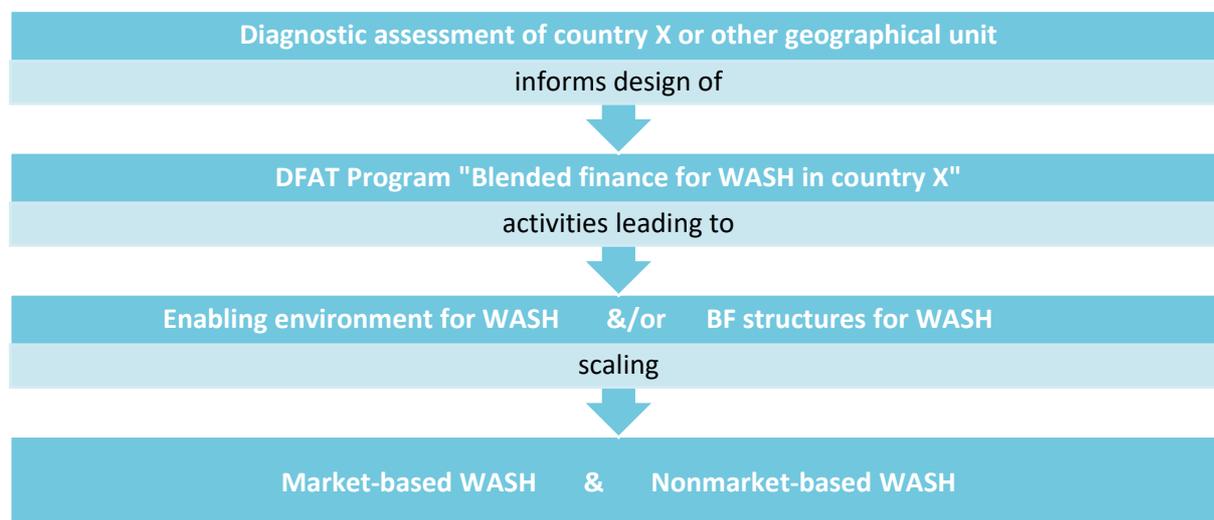
In addition, such approaches offer greater opportunities for replication and scale to further attract private and commercial capital and enable transition to commercial funding structures.

Multi-lever system impacts can be achieved through:

- a. Early efforts to build **market demand** through testing and pilots in order to: understand consumer behaviour; confirm the pivotal role women play as consumers in the value chain (as an example); assess the current and potential future drivers of value for sanitation products and services across different underserved communities; confirm the products and services that are suited to target communities; and drive social mobilisation through effective market communications.
- b. **Building capacity in the environment** through extensive technical assistance, which in this case included the training and certification of entrepreneurs to deliver quality construction services, together with regulatory provisions underpinning the required certification.
- c. **Developing the intermediary financing market** by equipping a network of microlenders (as an example) with new skills and disciplines and a new lending product (the design, launch and marketing was funded by the program). Plus, defining pricing strategies that support the most poor through subsidies while adopting market rates where feasible for other borrowers.
- d. **Rolling out the products and services at scale.**
- e. **Achieving behaviour change** through successful implementation: increasing the value that households place on sanitation, illustrated both by their willingness to pay for products and services and by their compliance with community goals that were set.
- f. Offering **access to finance through innovative blended facilities**

As such, this programmatic approach blends various types of investment capital (hosted either within existing DFAT modalities or newly created for the purpose of the programme if no existing modalities fit the purpose) to provide investment capability and access to finance for the sector as well as subsidies (grants, technical assistance), with the intent of strengthening the market, supporting sectoral outcomes, and forming the pathway for enhanced scalability and viability of market-based WASH while supporting, where required, non-market-based WASH.

Figure 1 Blended finance program approach



2) Description of the Diagnostic assessment method

This diagnostic assessment is based on recommendations provided by OECD and lessons learned from the experiences of multiple development and donor agencies, including the Development Finance Corporation, USAID, the International Finance Corporation and United Nations agencies.

The diagnostic assessment supports DFAT's Climate Change Action Strategy (2020-2025), which is based on climate mitigation, adaptation, and finance goals of the Paris Agreement. The Strategy's goal is to increase engagement of the private sector, social inclusion and gender equality, and thus creating stronger, unconventional partnerships that support innovative solutions to climate change, including those that encourage private sector investments.

Also included in the assessment are the following **cross-cutting imperatives**: alignment with DFAT development and foreign policy objectives; opportunity to strengthen response, adaptation, mitigation, recovery and resilience for climate induced WASH shocks; DFAT's capacity to address barriers for private sector investments through supply, demand, intermediary creation and support and through ecosystem strengthening by influencing policy creation; acceleration of private capital flows to water security and WASH assets and projects; scalability; and cross-sectoral and inclusivity specifics of development and social impacts.

The diagnostic assessment is planned for application in a developing **country context** and designed to identify innovative approaches to enable future structuring of financial and enabling environment mechanisms and partnerships. The aim is thus to achieve greater flexibility in catalysing private capital.

The diagnostic assessment method should be implemented if the following **ex ante criteria** are present:

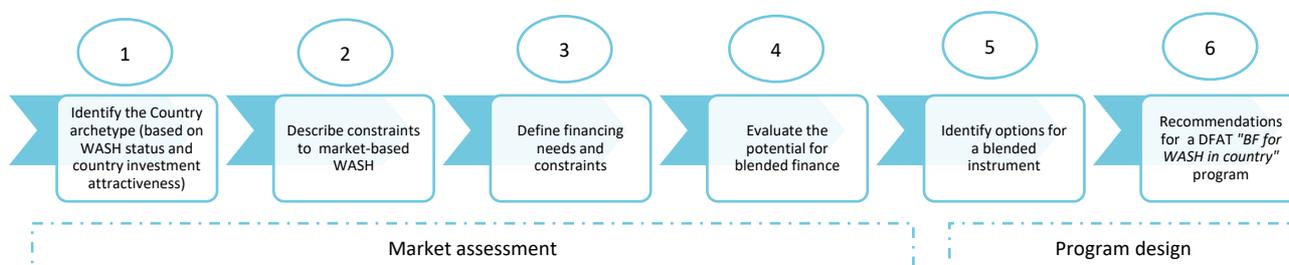
- 1) There is a defined **problem** and a defined **solution** that is ready for funding, sufficient to allow blended funding partners to tailor an approach.
- 2) There is an **existing market gap** which DFAT capital in the form of subsidies or concessional capital can be used to fill: and that gap *can* be filled without creating market distortions or crowding out the private sector.
- 3) There are stakeholders (and preferably with relationship track records) who can commit to blended **partnerships** and are motivated to play their part in such arrangements.
- 4) **National government** is open to play a central role and ownership in the decision to use development aid for blending and in the planning, design, and management of specific blended finance initiatives.
- 5) DFAT is prepared to **support local governments** to effectively engage in blended financing initiatives and to manage complex multi-stakeholder partnerships.
- 6) There is a willingness from the government and local stakeholders to ensure **transparency and accountability** of all actors involved in blended financing initiatives, with relevant contractual frameworks and **data accessibility** mechanisms.
- 7) The expectation is set for eventual **commercial sustainability** of the blended finance initiative over time, with the goal that market players will eventually provide commercial finance upon public partner exit.
- 8) Intended impacts of the initiative align with DFAT's **development and foreign policy agenda**.

The diagnostic assessment aims to provide specific guidance on the needs of a future DFAT program to catalyse an enabling environment supportive of blended financing for WASH; furthermore, this should be considered during the design phase of such a program. Other factors and criteria would of course influence the Program design. Some of those criteria include:

- 1) There is a clear business model for the blended finance initiative, with monetisable benefit flowing from it, even though subsidies may need to be provided by public or private entities at initial stages.
- 2) The technical design of the initiative specifies execution, capital, transactional cost and exit risks and how these will be managed.
- 3) The market for WASH products and services needs to be well understood by DFAT and investors, so that risks associated with market demand and enterprise performance and capacities are manageable.
- 4) All other risks such as impact risks and climate change risks are understood and accepted by DFAT and investors.

The proposed diagnostic assessment will follow the steps set out in Figure 2 below. This method is adapted from the USAID Blended Finance Roadmap for Global Health, so that is relevant to the WASH sector. This method can be repurposed for any other sector and should be used in conjunction with DFAT's political priorities and objectives for the target country.

Figure 2 Method steps



Step 1 Identify the Country archetype investment attractiveness and WASH status

The first step of the diagnostic aims to establish an understanding of the local context for WASH and finance more broadly:

- 1) **WASH status:** Rapidly **assess potential or latent demand for water, sanitation and hygiene services** – Complete a rapid assessment of the status of water, sanitation and hygiene services (including service levels available) and access. The assessment should be disaggregated by wealth quintiles, for urban versus rural, and – if available – for provincial and local geographic areas. The assessment is to be based on publicly available metrics (SDG6.1 and SDG6.2, and additional government monitoring data) and will define the need for water, sanitation and hygiene services. Additional country-specific data on hygiene practices and demand should be collected if available to assess more than handwashing (SDG6.2). This assessment can give an indication of latent demand for water, sanitation and/or hygiene; however, the potential need for *demand creation* is also acknowledged. In addition, a rapid qualitative assessment of the government’s market-based WASH policies will give a crude indication of any structural constraints, of the sort that would occur, for example, if policies assume or even privilege non-market-based or heavily subsidized WASH service delivery.

The **indicators** used will include at least:

- 1) Potential unmet demand for water services:
 - SDG6.1 The number of people (and %) access to water services (disaggregated by wealth quintiles, geographies and rural/urban)
- 2) Potential or unmet demand for sanitation services:
 - SDG6.2 The number of people (and %) access to sanitation services (disaggregated by wealth quintiles, geographies and rural/urban)
 - The number of people (and %) practicing open defecation (disaggregated by wealth quintiles, geographies and rural/urban)
- 3) Potential or unmet demand for hygiene services
 - SDG6.2 The number of people (and %) population access to handwashing services (disaggregated by wealth quintiles, geographies and rural/urban)
 - Additional data about possible demand for menstrual hygiene products and services
- 4) Qualitative assessment of the status of government policies relating to market-based WASH – supportive, silent, or unsupportive of market-based water, sanitation and hygiene services

An overall assessment for **WASH status** will be based on:

STRONG: Potential/latent demand in at least one of these service areas (water, sanitation or hygiene), in at least some geographical areas of the country, which is spread across wealth quintiles; plus, with a policy environment that *is* supportive of market-based WASH.

MODERATE: Potential/latent demand in at least one of these service areas (water, sanitation or hygiene), in at least some geographical areas of the country, which is spread across wealth quintiles; plus, a policy environment that *is not supportive* of market-based WASH.

WEAK: Low demand for all WASH services regardless of the WASH policy environment; or, a policy environment that *is not supportive* of market-based WASH regardless of the potential demand for WASH services.

2) Perform a rapid assessment of **country attractiveness to foreign and domestic investments**, based on publicly available metrics. Investment attractiveness is measured by the status of the country economy; financial transactions (foreign and domestic) on both the supply and the demand sides; and activity levels of the private sector (commercial and relevant to the WASH sector). A set of economic indicators is applied to each category, and an investment attractiveness score is calculated. Some metrics may include:

- 1) Levels of financial transactions (foreign):
 - Foreign direct investment, net outflows (% of GDP)
 - External debt stock, private, public
 - Credit rating S&P
 - Market capitalisation of listed domestic companies as % of GDP
 - Stocks traded total value (% of GDP)
 - Net ODA received per capita; Net ODA received (% GNI)
 - Net lending (+) / net borrowing (-) (% of GDP)
- 2) Status of domestic economy:
 - Domestic credit as % of GDP
 - Domestic credit provided by financial sector (% of GDP)
 - Domestic credit to private sector (% of GDP)
 - Inflation (consumer %)
 - Gross savings as % of GDP
 - GDP growth rate %, GDP per capita
 - Population growth (annual %)
 - Unemployment rate
 - Central government debt (% of GDP)
 - GNI per capita, PPP (current international \$)
 - Corruption index
- 3) Private sector indicators such as:
 - Time required to start a business (days)
 - Individuals using the Internet (% of population)
 - Industry (including construction) value added (% of GDP)
 - Medium and high-tech industry (% of GDP); manufacturing (% of GDP)
 - Firms with female participation in ownership (% of firms)
 - Firms with female top manager (% of firms)
 - Firms using banks to finance working capital
 - Medium and high-tech exports
 - Strength of legal rights index

An overall assessment for investment readiness status will be based on:

STRONG: Increasing levels of foreign investments, improving country credit rating and corruption index, improved commercial confidence of the population and business.

MODERATE: Developing financial sector, lending to households and enterprises, increasing consumer gross savings, improving foreign investments and business confidence.

WEAK: Low private sector investments, weak households and business borrowings, low consumer confidence, high levels of corruption, country low credit rating.

This overall assessment will take the above economic indicators into account while considering that many countries of interest, and with greatest potential, will almost by definition have comparatively low indicators for some categories. In fact, the countries of greatest interest, and indeed countries also attractive to corporate financial players seeking market growth and risk adjusted returns, may well exhibit quite low economic indicators – provided these are above a certain minimum threshold and meet basic requirements in such areas as the "corruption index" and the "legal rights index".

- 3) Define the country archetype by combining WASH status and investment attractiveness scores as “build”, “strengthen” or “transition”. The purpose of the country archetype is to confirm there is value in proceeding with a full diagnostic assessment, and to give an indication of the nature of any blended finance and WASH program (explored further in Step 5). See table 1 for sensitivities:

Table 1. Country archetype by WASH status and investment attractiveness score

		WASH STATUS (UNMET DEMAND, POLICY SUPPORTIVENESS)		
		Strong	Moderate	Weak
INVESTMENT ATTRACTIVENESS	Strong	TRANSITION	TRANSITION	STRENGTHEN
	Moderate	TRANSITION	STRENGTHEN	BUILD
	Weak	STRENGTHEN	BUILD	Consider alternative program

The country archetype is used to determine the best entry point plan for the blended finance program. BUILD country archetype focuses on building the capacity and a pipeline for blended finance, with the use of innovative tools (see Table 2) until such time when blended finance vehicles may be more appropriate. “STRENGTHEN is suited to deploying simpler blended instruments. TRANSITION calls for the design of complex blended finance tools, gradually preparing for the country’s transition to self-reliance in partnership with private and commercial sectors.

Countries in the BUILD archetype, with less-developed WASH systems and lower private investor attractiveness, should deploy simpler blended finance instruments, while TRANSITION countries or regions with more developed WASH systems and greater levels of private sector investments can explore more complex instruments.

This recommendation is only indicative: each country’s circumstances may make them more suitable for complex blended instruments if the right set of enablers is in place. That same thinking should also be applied to subnational regions, which may differ from the country’s archetype.

For countries with low WASH status and low financial attractiveness, development partners should consider whether attempting to catalyse or build capacity for private sector investment is the appropriate way forward at the time of the assessment. Alternative styles of WASH programming may be more appropriate and feasible, until such time as an assessment indicates the country archetype has shifted to at least the BUILD status exists.

The country’s archetype, based on available metrics, should be read in conjunction with other variables – specific attributes of the WASH and financing sectors. Such analysis is undertaken in steps 2 and 3 of the method. Other factors are also considered to determine the suitability for blended finance in step 4, where the most appropriate blended finance instruments and the enabling environment intercessions are confirmed.

It is recommended to perform country mapping by archetype and to update the map regularly to inform future blended finance strategies for DFAT's target countries and to identify priority ones for proceeding with blended finance program (see list in p.3 of this paper).

Methods of data collection and analysis for Step 1:

- Derive publicly available indicators and open data on washdata.org, World bank, UNICEF, UN Water, OECD, Private Sector Counts, SHOPS PLUS, GLAAS and others where relevant.

Step 2 Constraints and appropriateness of scaling-up market-based WASH

Collect information to assess:

- Demand:** Is further progress on WASH needed (which types of WASH services, for whom) and would an increase in market-based WASH assist this progress? (consider demand for market-based WASH and market influences of non-market-based WASH).
- Social inclusion:** Are additional measures, such as non-market-based WASH (subsidised or no-cost WASH services), required to ensure no social exclusion, such as based on income, gender, ethnicity, physical abilities or other social structural determinants, from WASH services?
- WASH enabling environment:** Is WASH a national priority? Is the WASH enabling environment conducive to market-based WASH? Is the enabling environment equipped to enable climate-resilient and socially inclusive WASH? Could a DFAT program assist in building this capacity?
- Capacity of WASH service deliverers:** Is any additional capacity development of WASH enterprises needed (e.g., business management, customer services, logistical management, socially inclusive WASH services, increasing the resilience of WASH services to climate change) and could a DFAT program strengthen the required capacity? Is additional large-scale infrastructure required to support market-based WASH of any scales?

To undertake the above assessments, utilise the WASH access data from Step 1 and collect information describing:

- 1) Government **WASH policies:** targets and key features of water, sanitation and hygiene policies relating to urban, rural and other populations, schools, health facilities, public places and any other focal areas identified. Identify any principles or requirements related to the financing of WASH access (e. g. use of subsidies, climate resilience requirements, qualitative indicators, review of government policies). Also identify any requirements relating to social inclusion, and climate-resilience.
- 2) Existing and planned (5-year forward projections) **investment by government** in WASH – where possible, disaggregate enabling environment investments (regulation, monitoring, demand stimulation, core/large-scale infrastructure etc) from service delivery (direct delivery of services, grants, or subsidies to water, sanitation or hygiene providers, or construction of smaller scale infrastructure). Include recent expenditures (last 5 years) (qualitative indicators, review of government plans and annual/financial reports; GLAAS data).
- 3) Existing/emerging **WASH service delivery models:** brief overview of main water, sanitation and hygiene types of service delivery models and key actors involved in supplying these services, and their current scale, reliability and quality (qualitative indicators, from interviews with government WASH officials and/or national WASH monitoring reports). Consider all aspects of WASH service delivery chains, including raw water source provision/management, wastewater services, faecal sludge management, demand creation, etc.
- 4) **Current role and nature of market-based WASH:** proportion of total WASH services currently provided by market-based enterprises; types of WASH services provided; typical enterprise size/scale; qualitative indicators from interviews with government WASH officials and/or national WASH monitoring reports.

- 5) Existing and prospective **demand for market-based WASH**: consider level of latent demand and whether demand stimulation is necessary (qualitative indicators from interviews with existing WASH enterprises, and/or national WASH monitoring reports).
- 6) **Current constraints to upscaling WASH enterprise activity**: including regulatory constraints, financial constraints, other resources, or capacity constraints; constraints on the capacity for marketing/demand creation, constraints on financial management, and constraints for offering climate-resilient WASH services, constraints for promoting and supporting social inclusion (design of targeted socially-inclusive actions), and support for women in WASH enterprises (qualitative indicators from interviews with existing WASH enterprises, and/or national WASH monitoring reports).
- 7) Current **role of non-market-based WASH** service delivery: key actors providing subsidised/no-cost WASH services; types of WASH services provided; which parts of the population rely on these services.
- 8) **Climate change** and **cross-boundary** implications for WASH systems in the country context: consider whether there is appropriate water resources management to mitigate water scarcity and water-mediated disasters that will affect the WASH services in this country; and, whether there is sufficient knowledge and know-how about what are/will be climate-resilient WASH services given local environments, climate hazards, existing infrastructures and adaptive capacities.

Step 3 Financing needs and constraints

This step is a deep dive to understand the **financial enabling environment** from the perspective of: private sector investments; policy status; financing challenges; available finance; existing precedents of blended finance initiatives in the country; potential funders and commercial actors willing to support the sector; status of other sources; and policies which increase or reduce the reliance on financial resources. Understanding financing needs and constraints will inform activities to strengthen the sector and will define the set of appropriate blended finance instruments across supply, demand, and the enabling environment.

The following factors are to be considered in addition to publicly available indicators as per Step 1 of the method for coherent understanding of the financial context:

- 1) Status of the financing sector (market saturation, efficiencies in loan approvals and processing, rural reach, levels of activity with households, enterprise borrowing, donor lending and debt appetite, maturity of the sector, repayment rates, typical interest rates charged, maturity of infrastructure to absorb online lending and approvals etc.).
- 2) Policies (foreign, domestic investments, tariffs, taxes, CSR, ESG, carbon offsets, financing sector legislation etc.).
- 3) Presence and interest of donors, investors, intermediaries (funds, blended vehicles, microfinance sector), active in the country.
- 4) Existing Australian aid and investments.
- 5) Investability of the sector (pipeline, assets) and the enabling environment (incubation, acceleration, government, and foreign assistance).
- 6) Levels of financial innovation and transfers.⁴
- 7) Culture, behaviours, entrepreneurial activity levels.

Summarise **findings and gaps**. Potential issues could include: high levels of donor aid leading to a crowding out of private investments; lack of investable assets; inefficiencies of lending institutions; lack of policies to support enterprise, intermediaries or private sector investments; limited capital either from end-users or providers; absence of

⁴ Transfers in this context imply innovative usage of public funds

risk diversification – bearing, sharing and transferring financial, political, or operational risks; misaligned incentives, and in particular the focus on higher profitability or short-term results at the expense of high-impact or long-term benefits.

Methods of data collection and analysis for Steps 2 – 3:

- Perform an assessment of the market for finance in the country by conducting interviews with local stakeholders on the ground.
- Conduct online interviews with stakeholders.
- Research policies, market dynamics, challenges, interventions, and actors' activities.
- Summarise findings to identify gaps.

Step 4 Potential for blended finance

Steps 1-3 of the method deliver a solid understanding of the country WASH status and investment attractiveness. Step 4 builds on performed groundwork and broadens it to understand: **opportunities for DFAT's intervention**; the potential for increased scale and efficiency through engaging the private sector; the presence and interest of private sector players; the value-add to DFAT and to private actors; and different potential approaches for resolving identified gaps in the financial system.

Following sub-steps are recommended:

- 1) Assess whether market-based WASH can be **scaled up** without compromising the **quality of services** (including climate resilience), and whether there is a potential for social exclusion from services, and if so, how **non-market-based WASH** can be supported to ensure **social inclusion**.
- 2) Evaluate **other factors** that will favourably or adversely affect the likelihood of project success, such as local actors' adaptability and readiness for change, Australian in-country presence and footprint, and the availability of existing cross-sectoral partnerships.
- 3) Assess **potential opportunities for WASH blended finance programs** based on activities of DFAT partners and of a broader range of sector stakeholders.
- 4) Assess **existing modalities** with the Development Partner/DFAT to determine their suitability to be utilised in part or fully for the purpose of proposed programme
- 5) Assess if **blended finance interventions are appropriate** by determining if the private sector can bring additional expertise and efficiencies, and if existing or new private players are interested in engaging.
- 6) Evaluate the **sustainability of the intervention**, recognising that blended finance can catalyse investments into business models or approaches that can be scaled and replicated even after the **exit of donor capital**. If an intervention or program can be sustainable in the long run (financially or otherwise), it is likely to be a good candidate for a blended finance program.

(As part of these last two steps, it is valuable to understand why private providers or investors have not participated to date, and whether these **roadblocks** could be surmounted. In some cases, new types of financing through blended finance instruments can unlock additional cost savings or generate new revenue streams to enable long-term sustainability.)

- 7) Evaluate the potential for **increased efficiency** by involving the private sector (new partners, new sources of funds, new skills).
- 8) Ensure that **incentives and objectives** are clear and aligned from the start to help the fund scale up after the exit of public or philanthropic partner(s).

Following these considerations, a further judgement about the feasibility and appropriateness to proceed with blended financing for WASH is required. If the structural issues identified here cannot be overcome through a DFAT BF Program, then a recommendation not to proceed with the Program might eventuate.

Step 5 Options for blended instruments

Table 2 Blended instruments based on country archetype

	Build	Strengthen	Transition
Approach to blended finance instruments	<p>DFAT can focus more on building capacity and the pipeline for blended finance – types of blended instruments:</p> <ul style="list-style-type: none"> • provide grant capital to develop proof of concept for WASH products and services • provide guarantees for local WASH enterprises to encourage local financial institutions lending to such enterprises • provide input-based payments to incentivise achievement of input milestones • provide subsidies for the poorest to increase affordability of WASH products and services 	<p>Amenable to deploying simpler blended finance instruments but not likely ready for complex blended finance tools – proposed instruments:</p> <ul style="list-style-type: none"> • provide grant (seed capital) for developing a prototype with potential for substantial impact • provide TA to local banks to enable WASH enterprises to access loans more efficiently • provide output-based payments to incentivise achievement of output milestones to enterprises or to financial sector • provide subsidies for the poorest to increase WASH products and services affordability • act as outcome funder by using grant to pay for achievement of WASH milestones in Development Impact Bond 	<p>DFAT can deploy complex blended finance tools, gradually helping countries transition to self-reliance – suggested instruments:</p> <ul style="list-style-type: none"> • blended finance vehicle – provide grant for structuring the fund and/or initial capital to attract investors • provide first loss capital to catalyse private investments • provide concessional investment capital (debt or equity) or guarantees to catalyse private investments • buy debt – use grant to partially re-pay a loan, contingent on achieving WASH milestones • combine other tools as per “build” and “strengthen” to achieve maximum efficiency without market distortion

These are options rather than recommendations, and combinations of the above-mentioned instruments could be used to meet country needs.

Methods of data collection and analysis for Steps 4 – 5:

- Research existing blended finance activities in the country; analyse the suitability of implemented tools in the context of existing opportunities for intervention.
- Based on research and lessons learnt, combined with findings in steps 1-3, assess effectiveness of interventions.
- Recommend options to DFAT.

Step 6 Recommendations for a DFAT “Blended Finance for WASH in country” program

This step develops recommendations for a potential blended finance program, applied in the real context identified in Steps 2, 3 and 4, including possible blended finance vehicle options and any additional activities required to improve either the market-based WASH attractiveness or the financial attractiveness.

In developing these recommendations, the following will be considered:⁵

- a) **Development objectives for climate resilient WASH** to remain fundamental for program rationale.
- b) There needs to be a clear distinction between (i) traditional additionality of DFAT as an aid agency to WASH development interventions and (ii) the **added value** arising from blended finance arrangements.
- c) There should be a sound **economic rationale** for entering into blended structures.
- d) If DFAT funding is used to crowd in capital from other sources, it should do so with **minimum concessionality** and subsidies.
- e) The expectation should be set for eventual **commercial sustainability** over time, with the goal that market players will eventually provide commercial finance.
- f) Comprehensive approaches will be required to build and reinforce the market and to strengthen national capacities and the **enabling environment** while developing the blended finance mechanism. Such tactics should include: strengthening the legal and regulatory framework, providing institutional and enterprise support; increasing operational and technical capacity; and supporting investment financial intermediaries. Such activities require DFAT’s commitment of resource and time.
- g) There should be high standards for **governance, risk management, transparency**, and environmental and social issues for such structures. Governance needs to accommodate acceptable DFAT modalities and procurement.
- h) Blended finance encourages risk taking and experimentation, and risk should be within DFAT risk tolerances. This remains a priority for the expansion of blended finance in environments with higher real or perceived risks. There is a requirement to innovate and to **increase risk tolerance** in order to expand efforts and mobilise private finance.
- i) To ensure that the blended finance initiative targets the achievement of the intended SDG, **measurement of outcomes and impacts**, aligned with SDG goals, should be designed at the start of the project.
- j) Across all stages of the process, there is a need to engage **all partners** to the agreement in confirming approaches, levels of funding, risk acceptance and intended impacts: this process should be based on respect for each party’s **commercial and development mandate**.
- k) The following matters are to be addressed in order to assess **implementation feasibility**:
 - Time to implement – overall duration from assessing feasibility to implementing the transaction: how long will it take to align and design the concept, align partners, and launch the transaction?
 - Cost of structuring & implementation – total cost borne by all partners from feasibility analysis to implementation: what is the total amount of human and financial resources required to support the design, structuring, and implementation of the transaction (versus a traditional status quo project)?
 - Other factors – for example, would new financiers enter the WASH sector because of this transaction? How much external financing could be leveraged from this transaction? Is there sufficient internal expertise?

⁵ Adopted from Using Blended Concessional Finance to Invest in Challenging Markets – ECONOMIC CONSIDERATIONS, TRANSPARENCY, GOVERNANCE, AND LESSONS OF EXPERIENCE, International Finance Corporation, February 2021 and author’s experience

Recommendations for DFAT actions should consider all the above factors in the context **of a specific opportunity**, identified during Steps 1-4 of the method, and specific blended vehicle design tools, identified per step 5.

Note:

This diagnostic method has currently been developed based on the literature review and experience of the project team. It has been tested and refined through pilot implementation in Cambodia.

3. DFAT LIST OF COUNTRIES

ASIA (25)

1. Afghanistan
2. Bangladesh
3. Bhutan
4. Cambodia
5. China (People's Republic of)
6. India
7. Indonesia
8. Kazakhstan
9. Korea
10. Kyrgyzstan
11. Lao
12. Malaysia
13. Maldives
14. Mongolia
15. Myanmar
16. Nepal
17. Pakistan
18. Philippines
19. Sri Lanka
20. Tajikistan
21. Thailand
22. Timor Leste
23. Turkmenistan
24. Uzbekistan
25. Vietnam

PACIFIC (16)

1. Cook Islands
2. Fiji
3. Kiribati
4. Marshall Islands
5. Micronesia
6. Nauru
7. Niue
8. Palau
9. Papua New Guinea
10. Samoa
11. Solomon Islands
12. Tokelau
13. Tonga
14. Tuvalu
15. Vanuatu
16. Wallis & Futuna

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