ADB WASH private sector investing: Summary

ADB wants to catalyze WASH financing in India and Asia; Dalberg was engaged to conduct a rapid landscape assessment and identify opportunity areas

Key questions

Phase 1: Rapid WASH private sector operator + investor landscaping

- Who are the **key players** across water and sanitation and what are their major roles?
- Who are the **main investors, donors and financial institutions** invested in WASH and what is an early view of their financing activities?
- What are the **financing challenges and support needs** in WASH financing *(ingoing hypotheses)*?

Phase 2: Investor segmentation & needs, history of catalytic efforts

- For key private investors, what are the **perceptions** towards WASH financing and biggest bottlenecks to scaling up investments?
- What are their **top support needs** and what are the key differences based on the level of maturity w.r.t WASH investments?
- What kinds of **successful interventions** have been used to deploy private sector capital (look beyond WASH and India)? What learnings can be adopted for ADB?

Phase 3: Recommendations for ADB

- Based on the landscape needs and ADB's priorities/ capabilities, **what types of interventions can it explore and prioritize**?
- Specifically for the proposed A4A **guarantee facility** – what are the pros and cons?
- What should be ADB's **next steps**?
- What factors can ADB use to shortlist another **country** in SEA to intervene in?

The following slides contain a summary view of the landscape report, investor needs, instrument mapping, and potential interventions for ADB

Private sector and financer landscape

- What is the segmentation of enterprises/ financers?
- What restricts private financing today?

Opportunity for ADB

Water value chain: Access to safe drinking water continues to be poor in India, along with limited efforts to conserve and treat water safely

Drinking water value-chain	Extraction	Treatment	Distribution	Secondary Treatment & Delivery	Greywater Treatment & Reuse
Challenges	• **Significant groundwater depletion:** ~20% of groundwater is in a critical or over-exploited state[1] • With ~39% of India's freshwater sourced from groundwater sources, India accounts for the highest global groundwater extraction rates (12%)	• **Poor quality:** ~49% rural households and 28% urban households have to survive without access to an improved source (devoid of contamination/ safe) of drinking water	• **Limited access:** ~59% of households (~66% rural households) do not have access to piped water • **Pipeline leakages:** 40% of piped water in urban areas is estimated to be lost due to leakages and poor operations	• **Low household access:** >75% households do not have clean drinking water, while 40% of the population is estimated to have no access by 2030. • **Poor quality treatment:** Even households using water purifiers had exceeded permissible Ph limits and were contaminated with E Coli	• **Poor water utilization:** Greywater is barely segregated from wastewater, and <5% of greywater in urban areas is treated

• **Limited Safe Water Enterprises:** Decentralized models providing safe water (e.g., kiosks, CWPPs) have limited penetration to-date in India

(1) As of an assessment of 6,965 blocks/mandals/taluks in 2020

Source: Dalberg Research; GoI; National Compilation on Dynamic Ground Water Resources of India, 2020

Private sector is present in 11 segments across this value chain

Drinking water value-chain

Extraction → Treatment → Transport & Delivery → Secondary Treatment & Use

Centralized Supply Systems

1 **Central Systems Manufactures/Suppliers:** Enterprises manufacturing or setting up systems for centralized water supply systems including piping, storage, and large purification systems

6 **Downstream part suppliers (taps, tanks, and pipes) :** Manufacturers and distributers of parts for downstream water supply including storage, piping, and taps

2 **EPC Contractors :** Players that design, procure, and manage water supply systems including pipelines and treatment technologies

3 **Drilling Companies:** Enterprises setting up and operating drilling systems for large scale water extraction

7 **Water monitoring and smart metering (manufacturing & delivery):** Manufacturing and delivery of meters and quality/flow monitoring systems

4 **O&M Players:** Enterprises solely engaged for operating and/or maintaining water supply systems including pipeline networks, treatment plants

Decentralized Systems

9 **Household Purification Systems**: Manufacturers and O&M of water purification technologies for household use

8 **Water Truck Owners:** Owners and Operators of water trucks/tanks

5 **Decentralized Water Extraction:** Manufacturers and deployers of hand pumps, borewell digging

10 **Decentralized water treatment & delivery**: Manufacturers and operators or decentralized water treatment technologies including retail/delivery

Cross-cutting

11 **Water Conservation Solutions:** Manufacturers of groundwater recharge and rainwater harvesting tech

Source: ODI, "Private Sector and Water Supply, Sanitation and Hygiene", 2015, Dalberg Analysis

Sanitation value chain: Despite significant progress owing to SBM, universal toilet usage and fecal sludge management lag behind

Sanitation value-chain	Access	Collection and Transport	Treatment	Reuse and Disposal
Challenges	• **Behavioral issues leading to inadequate usage** • **Lack of toilet upgrades and maintenance:** 40% of toilets constructed under SBM 1.0 were single pit/closed pit toilets which fill up in ~5 years. Many of the toilets are dysfunctional, forcing people to stop using toilets and defecate in the fields • **Need for secondary / additional toilets** as family size / population continues increasing. Demand for secondary toilet & bathroom loans, account for 60% of sanitation loans market which is largely unmet	• **Inefficient cleaning and collection from septic tanks:** Only 2-4% of septic tanks are cleaned annually. Septic tanks are typically cleaned only when they overflow, which creates unhygienic conditions and spreads the risk of diseases • **Inefficient wastewater transportation:** Desludging operators do not use fully mechanized equipment and avoid transporting sludge/septage to STPs/FSTPs	• **Low sewage treatment capacity:** Only 30% of sewage in India is currently treated, and an even smaller portion is reused, leading to unsafe disposal of waste • **Inadequate FSM facilities:** The number of FSTPs is still limited due to high set-up costs, households preventing FSTP development in close proximity, lack of revenue streams etc.	• **Limited demand for byproducts from treated waste:** Despite government policies, the demand for end products like fertilizers remains negligible and farmers are unwilling to pay • **Conflict of interest:** Chemical fertilizer companies are unlikely to be interested to promote and sell organic manure to farmers

Note: (1) ODF+ focuses on toilets with water, maintenance, and hygiene, while ODF++ focuses on toilets with sludge and septage management

Private sector is present in 10 segments across this value chain

Sanitation value-chain: Access → Collection & Transport → Treatment → Reuse & Disposal

Stand alone

Access

1 **Toilet construction enterprises**: Construction of individual household toilets and public toilets

2 **Toilet parts manufacturers:** Firms that manufacture toilet parts (toilet seats, cement rings etc.) used in bathroom and toilet installation

3 **Toilet installation, maintenance and service:** Enterprises handle setup and O&M of community and public toilets

Collection & Transport

5 **Septic tank cleaners and transporters:** Operators empty and transport faecal waste from containment structures

Treatment

6 **STP and greywater operators:** Firms setup and maintain STP infrastructure; certain enterprises manage greywater conservation systems

7 **Sludge drying beds:** Setup and maintain sludge drying beds for sludge dewatering

Reuse & Disposal

9 **Waste to end-products:** Convert waste to usable end products like fertilizers, bio-gas, charcoal

Cross cutting

4 **Plumbing construction:** Designing and construction of plumbing lines that are used for networked sanitation infrastructure

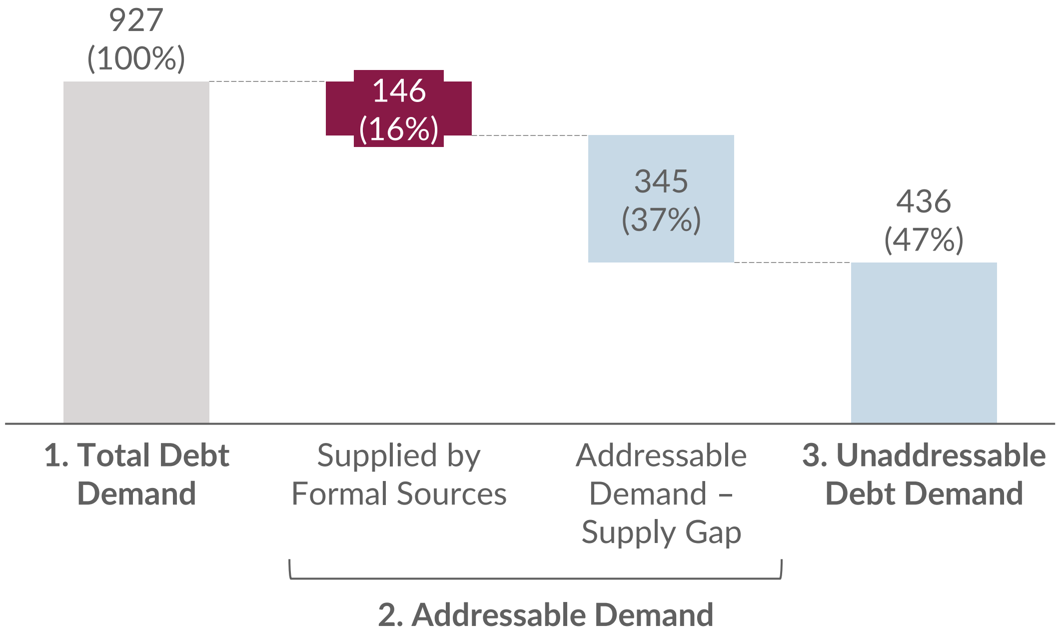
8 **FSTP operators:** Involved in set up and operations of faecal sludge treatment plants

10 **Emerging solutions**: Enterprises provide innovative solutions that maintain hygiene, conserve resources (water and energy), and provide special toilet infrastructure (e.g., waterless urinals, bio-toilets, bio-digesters, e-toilets etc.)

Note: (1) Greywater treatment which lies at the intersection of the water and sanitation value chains, has been included with STP operators; the segment is analysed from a wastewater treatment perspective; (2) Toilet installation, maintenance and service includes firms that manage traditional community/ public toilets; emerging solutions includes firms that have created alternatives for the traditional toilet infrastructure;
Source: ODI, "Private Sector and Water Supply, Sanitation and Hygiene", 2015, Dalberg Analysis

However, poor access to finance limits the potential of the private sector

Lending Demand and Gap for MSMEs
2017, India, $ B



- High-level estimates and expert inputs indicate that for WASH, less than 16% of demand is met by formal finance providers. **Debt provision in the sector is skewed towards household lending**
- **Equity investors have also not been active within WASH**. Less than **$ 66 M** has been invested by impact investors/ PE/ VC funds in WASH over the last 10 years

FIs and impact investors have stayed away given lack of understanding of SME needs and business model challenges of WASH enterprises…

*…leading to **high-risk perception and limited visibility around opportunities***

Source: IFC, "Financing India's MSMEs - Estimation of Debt Requirement of MSMEs in India", 2018; Tracxn analyses ; Dalberg interviews and analysis

Investment attractiveness for WASH operators is driven by six types of industry characteristics that can be used as segmentation variables

Market concentration

Is the market consolidated with a few large players who hold significant market share or is the market is fragmented with multiple smaller-scale MSMEs?

Presence of large players indicates increases attractiveness

Formalization

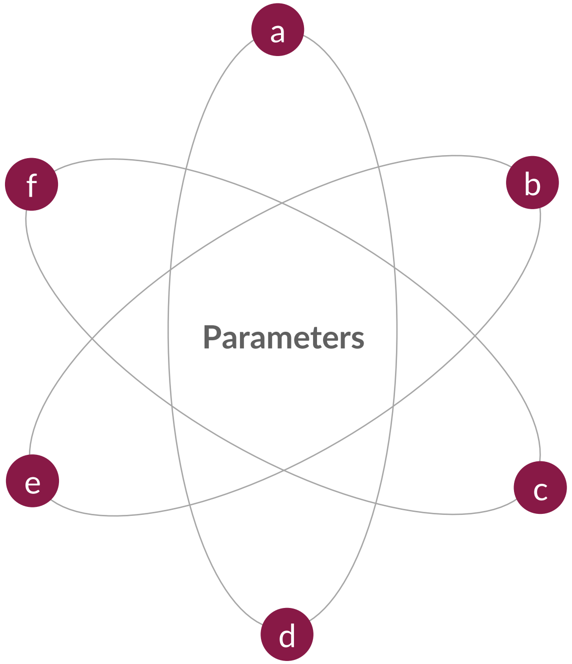
Is the typical business registered, has formalized processes for bookkeeping, taxations and maintenance of financial histories?

High formalization increases attractiveness

Diversified client base

Is the typical client base concentrated towards a single type/ small set of buyers or is it diversified in the number and types of buyers (e.g., B2G vs B2B)?

Higher diversity increases attractiveness



Predictability/ repeatability of cash flows

Are cash flows predictable to the extent that financers are able to understand the business dynamics and assess risks effectively? Is repeat business common?

Predictable and repeatable increases attractiveness

Tech complexity/ asset intensiveness

Are fixed assets available that can be used as collateral? Is there some key IP/ process/ technology which differentiates enterprises?

Increased asset intensiveness drives competitive advantage and hence investabiity

Growth potential

Is there potential for enterprises to grow due to unaddressed need, evolving business models etc.? Is there potential to consolidate the existing market?

High growth potential increases attractiveness

These parameters help segment investment opportunities into five segments with varying levels of existing investment activity

Existing financing coverage

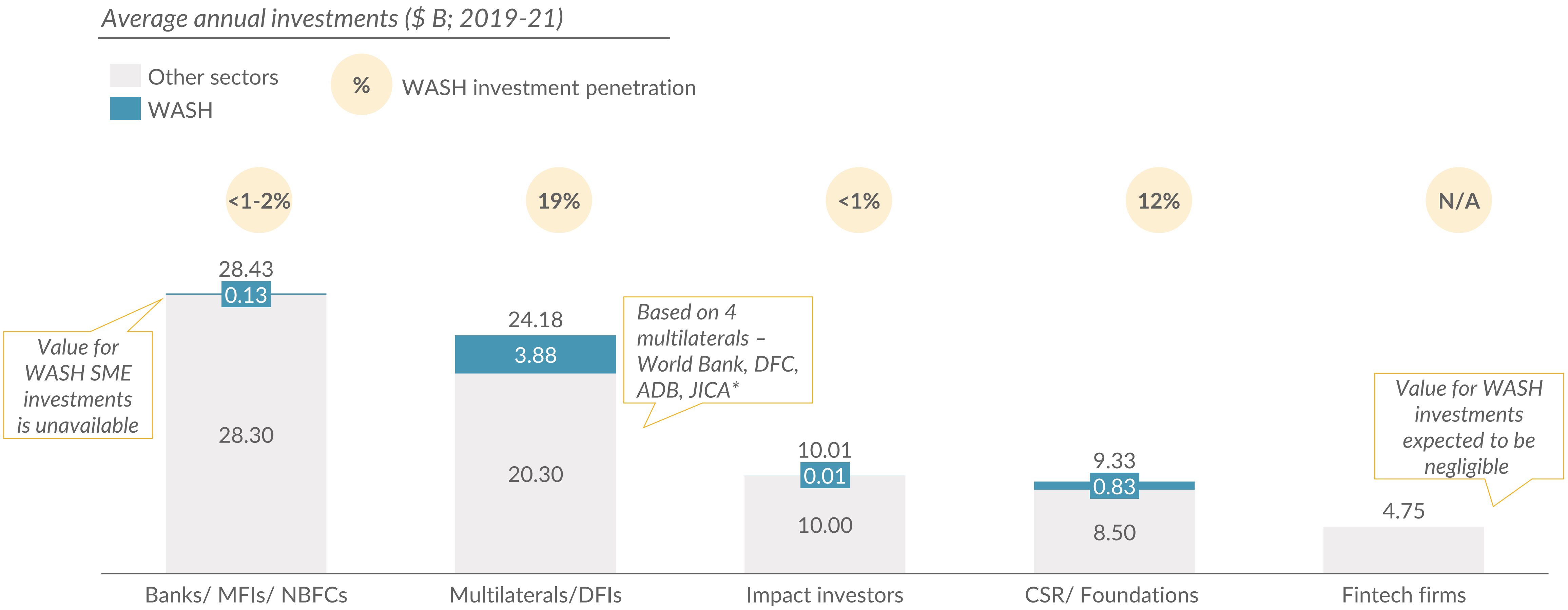
Parameters used to segment

Segments	Large-ticket	Mature operators	Emerging innovators	Old guard	Fledglings
Overview	*Tendered projects in large cities*	*Small/ medium enterprises with some assets & formalization*	*Business models with key innovations/ IP being tested*	*Legacy business models with predictable cashflows*	*Fragmented with micro players, low growth rate*
*Annualized **market size** (approx. range)*	• **$ 1-1.5 B**	• **$ 2-2.5 B**	• **$ 50-250M**	• **$ 1-1.2 B**	• **$ 2-2.5 B**
*Average **ticket sizes***	• **$ 1-200 M+ onwards**	• **$ 50K-600 K**	• **$ 15-30 K**	• **$15-30 K**	• **$ 1,500-6,000**
Market concentration	High	Medium	Low-medium	Medium	Low
Diversified client base	Low-medium	Medium	High	Low-medium	Medium
Formalization	High	Medium-high	High	Low-medium	Low
Asset intensiveness	High	Medium-high	High	Low-medium	Low
Predictable, repeatable cash flows	Medium-high	Medium	Low-medium	Low	Low-medium
Growth potential	Medium-high	Medium – high	High	Medium	Low
Value chain operator categories (examples)	• EPC contractors for centralized piping • Large STP operators	• Large integrated storage, piping players • Large cleaners & transporters (10+)	• Water kiosks, water monitoring systems • FSTP operators	• Central water systems part suppliers • STP O&M players	• O&M for water supply systems & purification • Toilet O&M contractors

Five categories of investors have WASH exposure in a country such as India; impact investors and fintech players have low levels of penetration

	1 Banks/NBFCs/ MFIs	2 Impact Investors (incl. PE/VC funds)	3 Fintech players	4 Multilaterals, DFIs	5 CSR/ Foundations
Focus areas	• **Household lending** mainly by MFIs, SFBs for water and sanitation connections • **SME lending** via long-term secured (incl. vehicle loans) & short-term unsecured loans; NBFCs, SFBs are critical for WASH SMEs; **segment lagging in WASH** • **Large enterprise lending** (capex, opex) for large projects with high credit rating and collateral • **Wholesale lending** where banks/ NBFCs invest in MFIs/ SFBs for on-lending	• **Invest in high-growth enterprises** – e.g., technology focused, market leaders • **Invest in WASH funds** that on-lend to financial institutions, enterprises and households; **very few funds have explicit WASH** • **Lend or invest in financial institutions** for on-lending to enterprises and households; **WASH focus typically lacking** in use of these funds	• **Enterprise lending** to those with demonstrated history of government contracts, e-commerce transactions or a digital footprint; **very restricted in WASH** • **Vehicle loans** using AI/ ML to connect dealers, OEM's, and customers/ enterprises digitally; **limited** to large, muti-region enterprises in WASH	• **Loans to governments** to build large-scale infrastructure • **Capital allocation to FIs** for direct lending or on-lending to households and enterprises; **dedicated WASH allocation missing** • **WASH focused funds** by allocating capital to impact investors • **Concessional/ guarantee facilities** to FIs to support lending, incl. in govt. projects; **uptake of facilities has been slow**	• **Funding to social enterprises and initiatives** to support set up or expansion in the form of catalytic/ investment/ returnable grants; **preference for guaranteed, visible outcomes annually** (e.g., WASH assets like toilets) • **Pooled resources for large-scale infrastructure** – pool CSR budgets to enable funding of larger scale, capital intense WASH infrastructure; **lack funding for O&M**
Examples	Bandhan Bank mudra YES BANK LENDINGKART	Aavishkaar Group ceniarth matrix PARTNERS	SME CORNER F	DFC U.S. International Development Finance Corporation THE WORLD BANK ADB	PEPSICO FOUNDATION TATA TRUSTS

With the exception of multilaterals and DFIs, WASH represents a negligible part of these investors' portfolios



Notes: (*) Data for UNDP, USAID not readily available. Retail loan penetration for WASH is considered with only MFI lending in scope; Only PE/VC funding to direct enterprises are considered; CSR estimation for WASH is obtained by prorating the consolidated value - $1 B between 2015 and 2022; years used based on data availability

Sources: **1.** World Bank India Strategy (2018-22), ADB India Operations Business Plan (2020-22), JICA India Operations (2020), DFC All Active Projects ;
2. Fintech Pulse Vol 3 (2021), **3.** Bain, India Venture Capital Report (2021), **4.** Bain, India Philanthropy Report, 2021, USAID, Final Opportunity Analysis Report (2021),
5. News-Business Standard, Microfinance loan portfolio (2021), Dalberg, Catalyzing Sanitation Lending in India, 2020

Six key constraints come together to reduce private financer interest in the WASH sector

	Unfavourable risk-return ratio		*Poor capacity to serve WASH*		*Limiting pipeline of "ready" enterprises*	
Challenge	**High perceived risk**	**High transaction costs**	**Low financer capacity**	**Siloed financing approach**	**Poor exogenous economics**	**Suboptimal endogenous economics**
Description	• **Lack of experience** with lending to WASH enterprises • Perception of WASH as a "**public service**" • Poor **track record of government** payments[1] • **Limited protection** measures (e.g., in the form of guarantees) exist	• **Search cost is high** due to low discoverability of enterprises, limited aggregation • **Cost to serve is high** due to small ticket sizes, complex/ costly due diligence • Low ability of some MSMEs to pay places downward pressure on interest rates	• Limited understanding of attractive **opportunities**, **product needs** (e.g., high tenure) and **mechanisms needed** to assess and serve opportunities well • Few financers with prior WASH experience (retail lending) have some understanding	• The way various types of capital (debt, equity, philanthropic) are deployed today **preclude easy "blending" of capital** • Seamless blending mechanisms that would make more opportunities addressable do not exist in plenty	• Factors **outside the control of enterprises** leading to poor unit economics – e.g., delayed/ non-payment from government consumers, high geographic spread of operators	• Factors **in control of enterprises** driving poor unit economics (esp. micro and small enterprises) – contributed by low formalization/ digitalization, inefficiencies in business model that squeeze profits/ margins

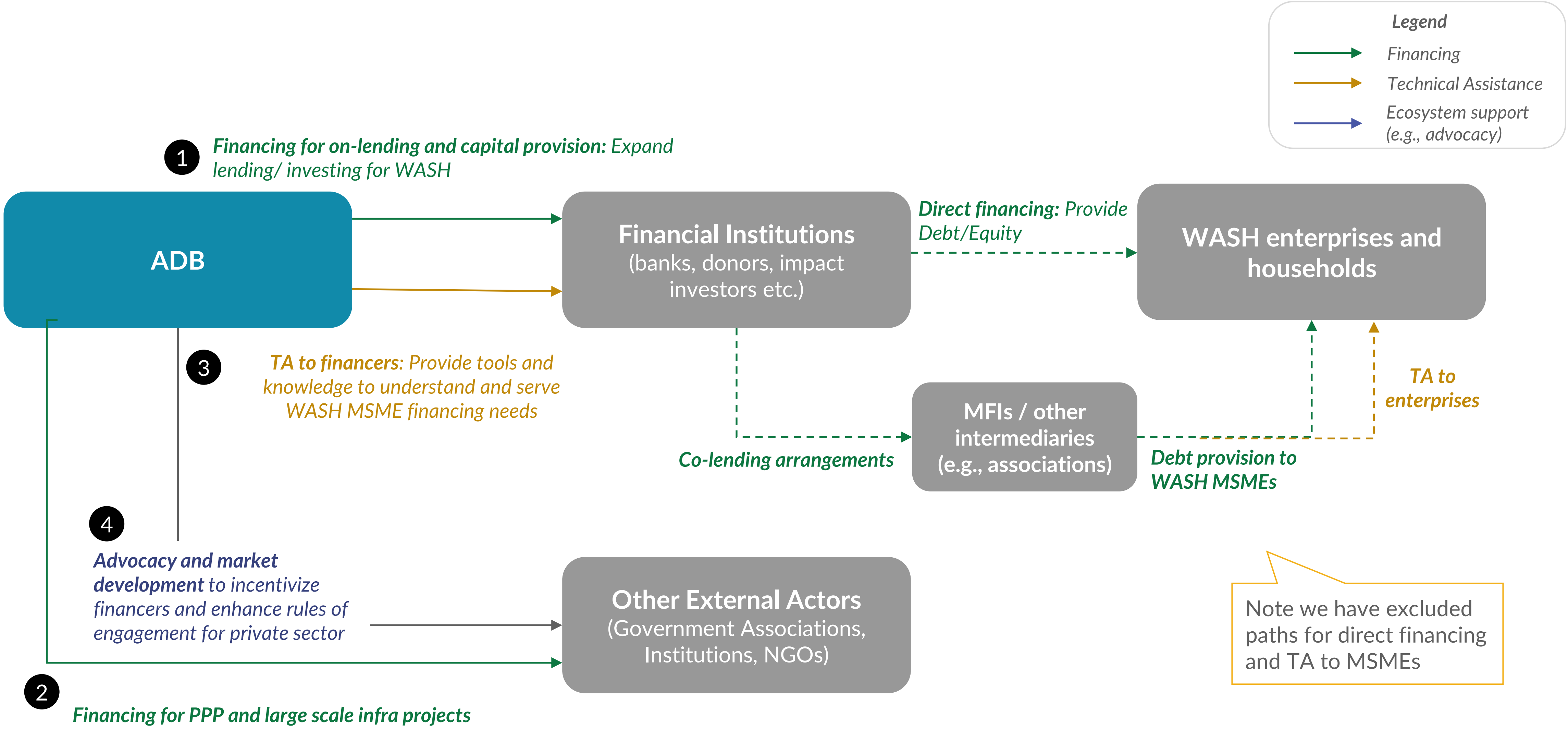
Note: (1) Estimates suggest government can form 40-60% of WASH businesses although this varies considerably by segment – e.g., 30% for downstream part suppliers vs 60% for STP operators

Private sector and financer landscape

Opportunity for ADB

- Based on the landscape needs, what types of interventions should be explored and prioritized? Particularly which will have a multiplier effect?

ADB can boost private capital by expanding financing for large projects, on-lending and engaging in market development activities



Specifically, we identified six opportunity areas for ADB at the intersection of WASH segments and investor categories

Legend Prioritized potential opportunity area De-prioritized opportunity area

Financer type	Involvement	Large-ticket	Mature operators	Emerging innovators	Old guard	Fledglings
Traditional lenders (banks, NBFCs, MFIs)	Current	A Medium	B Low-Medium	Low-Medium	Low	Low
	Potential	High	High	Medium-High	Medium	Medium
Impact investors	Current	C Low	Medium	Medium	Low	Low
	Potential	High	High	High	Medium	Medium
Fintech	Current	Low	D Medium	Medium-High	Low	Low
	Potential	Low-Medium	High	High	Medium	Medium-High
Multilaterals/DFIs	Current	E Medium-High	Low-Medium	Low	Low	Low
	Potential	High	High	High	High	High
CSR/Foundations	Current	Medium-high	Medium	Medium-high	F Low	Low
	Potential	High	High	High	Medium	Medium

Of these opportunity areas, three were prioritized for further analysis based on ADB's inputs

Prioritized

A Increasing MSME lending by banks, NBFCs, MFIs beyond the "creamy layer" of formal WASH medium enterprises

B Increasing impact investments for WASH, including through a cohort model anchored to cities in India

C Increase DFI capital for downstream lending (moving beyond large-ticket infrastructure)

Prioritized due to ADB's priority to address the high financing gap for the "missing middle" (MSMEs). Note these opportunities have been reframed slightly to reflect the needs better

De-prioritized

D Increasing lending by large commercial banks to large ticket WASH projects and wholesale borrowers

E Increased lending by fintech players to WASH innovators and fledglings

F Increasing grantmaking by CSR/Foundations to fledglings

De-prioritized for this study as:

(1) ADB has a long history of investing in large-ticket infrastructure/ opportunities

(2) ADB wants to place lower emphasis on interventions that are "less-ready" for catalytic financing (i.e., working with fintechs or with the "fledglings" segment) in the short-term

To identify interventions within the prioritized areas, we first looked at financer-related barriers preventing these opportunities to be realized today

The six constraints apply to different degrees across these opportunities; there is thus value in customized interventions

High presence of challenge | Medium presence of challenge | Low presence of challenge

Challenge	1. High perceived risk	2. High transaction costs	3. Low financer capacity	4. Siloed financing approach	5. Poor exogenous economics	6. Suboptimal endogenous economics
Description	• Perception of WASH as a **"public service" and lack of experience lending** to WASH enterprises	• High cost to serve due to **low discoverability of enterprises, small ticket sizes, and costly due diligence**	• Limited understanding of WASH opportunity areas and suitable financial products; low prior WASH investing experience	• **Lack of blended finance solutions** that combine debt, equity, and philanthropic capital within the WASH sector	• Factors outside the control of enterprises– e.g., **delayed payment from governments, high geographic spread** of operators	• Factors **in control of enterprises** contributed by low digitalization, inefficiencies in business model that squeeze profits/ margins
Support need	*De-risk/ increase protection*	*Cost reduction*	*TA to scope, serve opportunities*	*Facilitate blended financing*	*Improve enterprise readiness* *"Backstop" / reduce external risks*	*Capacity building of enterprises*
Opportunity area						
A **Bank-MSME lending**						
B **Equity-MSME investment**						
C **DFI capital-small ticket**						

In the next section, we look at specific instruments that can help address these challenges

Note: (1) Mapped to the red cells where there is high presence of the challenge; (2) Mapped to the yellow cells where there is medium presence of the challenge

Dalberg

13 financing and non-financing instruments can be applied in combination

Financing instruments

Risk reduction
1. Guarantee facilities

Cost reduction
2. Reward and incentive mechanisms
3. Earmarked funds

Direct liquidity/ support
4. Concessional loans
5. Project Grants
6. Pooled DFI funds
7. Accelerators[1]
8. Impact bonds, green bonds
9. Payment vouchers[1]

Blended financing (6–9)

Non-financing instruments

Investor TA
10. Fund setup and structuring support
- Sector knowledge support

Market building
11. WASH Marketplace
12. WASH Intelligence Platform

Advocacy
13. Quality processes and standards
- ULB credit ratings

Note: Instruments were shortlisted based on applicability to the six key challenges financers face

These 13 instruments were assessed based on previous performance, applicability to financers' challenges, and potential to unlock additional private funding

Instrument	High perceived risk	High transaction costs	Low financer capacity	Siloed financing approach	Poor exogenous economics	Suboptimal endogenous economics
1 Guarantee facilities	High applicability	Low immediate applicability	Low immediate applicability	Low immediate applicability	High applicability	Low immediate applicability
2 Concessional loans	High applicability	Low immediate applicability	High applicability	Low immediate applicability	High applicability	High applicability
3 Reward and incentive mechanisms	Low immediate applicability	Low immediate applicability	Low immediate applicability	High applicability	High applicability	Low immediate applicability
4 Earmarked funds	Low immediate applicability	Low immediate applicability	High applicability	Low immediate applicability	Low immediate applicability	Low immediate applicability
5 Project Grants	High applicability	High applicability	Low immediate applicability	High applicability	High applicability	High applicability
6 Pooled DFI funds	Low immediate applicability	High applicability	Low immediate applicability	High applicability	Low immediate applicability	Low immediate applicability
7 Accelerators	Low immediate applicability	High applicability	High applicability	High applicability	High applicability	High applicability
8 Impact bonds	High applicability	Low immediate applicability	Low immediate applicability	High applicability	High applicability	Low immediate applicability
9 Payment vouchers	High applicability	Low immediate applicability	Low immediate applicability	High applicability	High applicability	Low immediate applicability
10 Financer TA	Low immediate applicability	High applicability	High applicability	High applicability	Low immediate applicability	Low immediate applicability
11 City WASH Marketplace	Low immediate applicability	High applicability	High applicability	High applicability	Low immediate applicability	High applicability
12 WASH Intelligence Platform	High applicability	High applicability	High applicability	High applicability	Low immediate applicability	High applicability
13 Advocacy	High applicability	Low immediate applicability	High applicability	High applicability	High applicability	Low immediate applicability

High applicability

Low immediate applicability

E.g., Guarantee facilities have been used extensively due to larger multiplier effect as compared to instruments like project grants or concessional loans

We combined this analysis with challenges that opportunity areas face to arrive at interventions that ADB can explore. Please refer to the annex for details on the analysis

Based on the instrument mapping and previous assessment of binding constraints for each opportunity, some top instruments emerged

	A Bank-MSME lending	B Equity-MSME investment (incl. working with cities)	C DFI capital-small ticket
Financial instruments	• **Guarantee** to reduce collateral requirement to enable enterprises to borrow more and encourage lending to new enterprises • **Concessional loans to** increase liquidity and reduce cost of capital for financers in on-lending to lending • **Project grants** provide added incentive to focus on WASH, reduce cost and can be structured as output-based to focus on high-impact areas	• **WASH Marketplace** to help investors to source and evaluate enterprises who win city contracts; backstop city payments to establish initial comfort for investors	• **Pooled funds** to bring together DFIs, philanthropic capital, impact investors with different risk appetites and facilitate both debt and equity capital for WASH MSMEs • **Rewards and incentives** to increase rate of return within WASH, bringing it closer to hurdle rate requirements • **Accelerators** to bring together different investment types, improve enterprise unit economics, and address macro risks by working closely with government entities • **Impact bonds** to demonstrate impact of WASH investments, especially for innovative solutions that have high potential for scale (e.g., fecal sludge management solutions, groundwater conservation solutions)
TA	• **Financer TA** to provide overview of WASH models, segment nuances as well as assist in enterprise due diligence, risk mitigation etc.		• **Financer TA** to provide detail around lucrative opportunities, how to assess impact, price risk etc.

These were combined into 5 intervention packages for ADB, of which ADB shortlisted 3 to focus on in the near future

		Intervention package overview	*Potential ADB role*
Opportunity-specific	1	**Risk/ cost reduction facility with TA** to boost WASH-MSME lending; can be coupled with concessional loans and output based grants where needed[1]	• Provide guarantee (second loss onwards[4]), debt or grants for concessional loans and incentives depending on structure • Fund technical assistance through a suitable partner
	2	**Blended finance facility** bringing together DFIs, commercial investors and non-commercial donors. Funds can be used for (a) a **pooled fund** to support MSME investment by providing liquidity or incentives for meeting WASH targets, (b) an **accelerator** to improve enterprise readiness/ scale viable solutions and/ or (c) an **impact bond** to establish impact/ proof of concept[2]	• (a), (b) Pooled fund and accelerator: capital and TA provider • (c) Impact bond: outcome funder and/ or fund design/ feasibility assessment *Note: ADB has prioritized only (b) the accelerator out of the 3 proposed sub-interventions*
	3	**City WASH marketplace** that facilitates impact investment into cohort of enterprises who win city contracts[3]	• Fund the marketplace that brings all parties together • Backstop city payments initially to provide impact investors' comfort
Cross-cutting	4	**WASH intelligence platform** that helps financers understand the market opportunity, aid discovery of enterprises, streamline capital flow and strengthen collaboration across stakeholders	• Full or partial funding for creation and maintenance of a neutral platform (starting with an initial design and scale-up strategy) *Interventions 4 and 5 have been combined with a sharp focus on TA that can complement financing interventions*
	5	**Advocate for common standards** to formalize/ improve quality perception of WASH enterprises and for **ULBs' to uptake credit ratings**	• Create materials, train employees to build government capacity in these specific areas (can be part of ADB's current work with state/ city governments where relevant)

Notes: Financer TA is a part of interventions 1,2,3,4 and has not been considered separately; (1) Maps to opportunity A: bank-MSME lending, (2) Opportunity B: Equity-MSME investment (incl. working with cities); (3) Opportunity C: DFI capital-small ticket; (4) Based on our understanding that ADB does not take up first loss positions

Through these three interventions, ADB can play an important role in addressing challenges faced by FIs and MSMEs, and unlocking capital

1

Intervention 1
Risk & cost reduction facility

Objective: *Support FIs to lend to WASH MSMEs, especially the "missing middle", by providing downside protection, reducing cost and building capacity*

Enterprises that graduate from the accelerator can raise capital without further due diligence

2

Intervention 2
WASH SME Accelerator

Objective: *Create a pipeline of ready to invest and scalable WASH SMEs by identifying promising enterprises, building their capacity and connecting them with investors/ buyers*

Synergy in unlocking private capital

Increase awareness and capacity to serve WASH MSMEs to enhance facility uptake

Harness knowledge base and share with ecosystem,

3

Intervention 3
Technical assistance and market building

Objective: *Build capacity of financers to scope/ serve WASH financing opportunities and advocate for better rules of engagement for private operators to increase investor comfort*

The following slides include an overview of what the interventions can focus on, the detailed reports submitted include details on learning goals, design considerations, partnerships needed, roadmap and risks

Note: The detailed reports include details

Intervention 1: The facility should aim to incentivize FIs into lending to WASH SMEs via downside protection and by reducing cost of funds

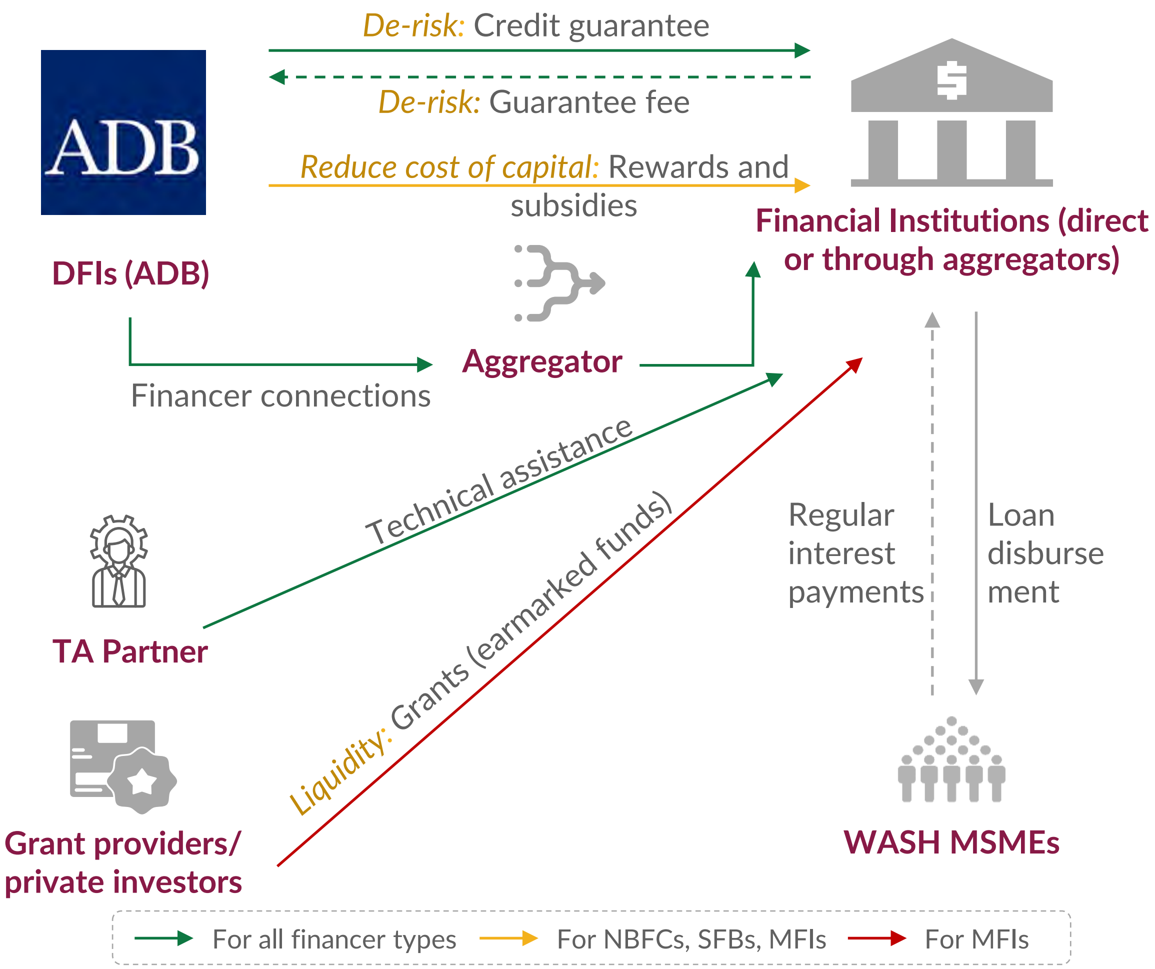
Key objectives

- **Address key bottlenecks** FIs face to lend to WASH MSMEs, especially the "missing middle" layer
- **Test what works** by deploying a combination of instruments that reduce financers' risk and cost – e.g., de-risk via guarantees for larger financers and combine with subsidies to reduce cost for smaller financers (whose cost of capital is higher). Liquidity should be provided as an add-on where it is a known bottleneck (e.g., for MFI lending) alongside TA in all combinations

Potential impact

- **Pilot**: A **$5-10 million** pilot facility could unlock over $12-26 million in loans to WASH enterprises over the next 2-3 years[1]
- **Scale-up**: The facility has the potential to scale up to **$100-500 million**[2] after the timeframe of the pilot program

Illustrative structure of the potential pilot



Note: (1) Size of the facility is driven by number of financers selected, number of loans through each financer, and multiplier effect of instruments in facility; (2) USAID WASH Guarantee facility of $60 million, USAID-Mastercard $100 million credit facility, World Bank- SBI $625 million credit line to rooftop solar SMEs

Intervention 2: The accelerator focuses on improving the discovery and attractiveness of SMEs for impact investors

Key objectives

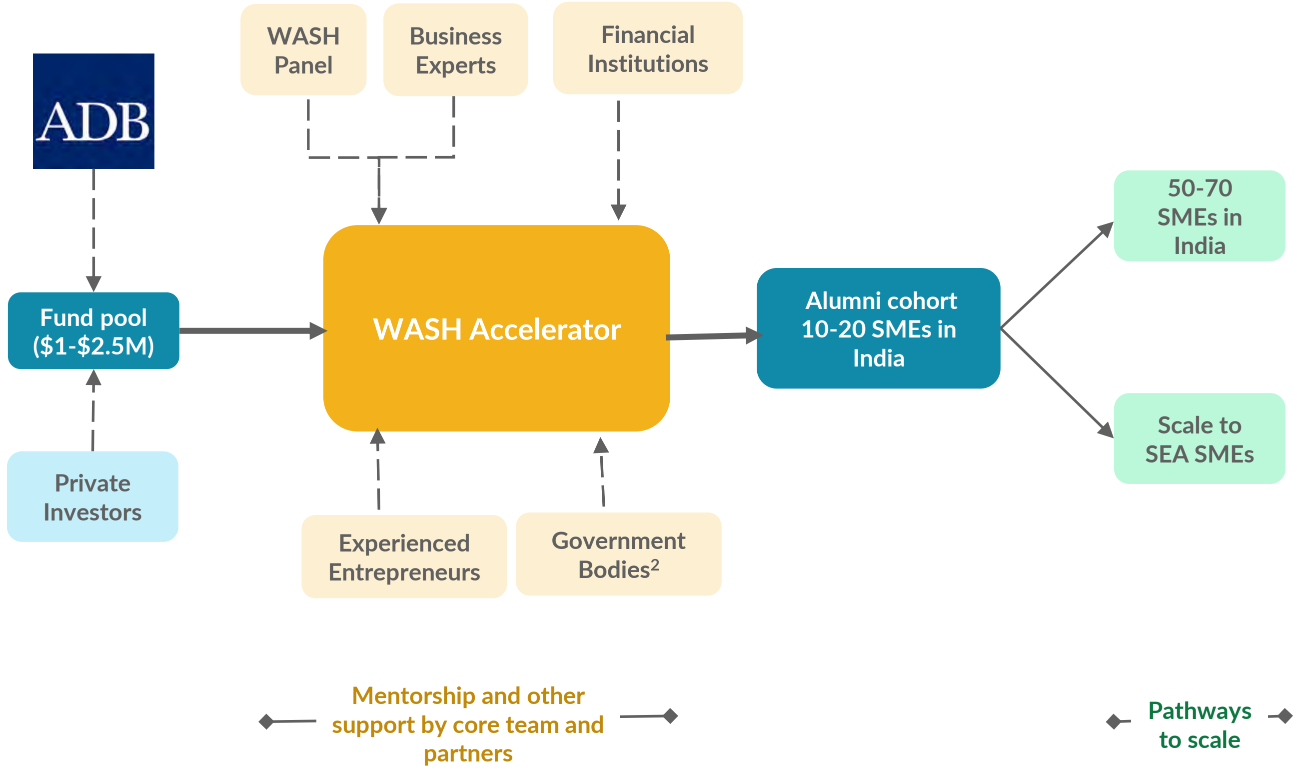
Support innovative WASH SMEs with developed business models to scale and become ready for commercial financing

- **Provide 1:1 mentoring** on how to scale (e.g., working with governments, quality standards) and become ready for/ seek private financing
- **Connect enterprises with partners** who can help enterprises formalize operations/ systems and connect with buyers (esp. government for scale)
- **Partner with FIs, impact investors**, other capital providers to match demand and supply of private finance

Potential impact

- **Pilot**: To support an initial cohort of 10-20 enterprises, a \$1.25M - 2.5M, pool fund can help unlock private finance of \$15 - \$30M
- **Scaled up:** Accelerator can scale to support 40-70 enterprises / \$50-60 million[1] based on initial results

Illustrative structure



Note: (1) One example is the Danone- Incofin €50 million Water accelerator; (2) This can be directly or through entities that have connections with government bodies

Intervention 3: TA for financers should be custom-designed to address key challenges they face across the lifecycle for both opportunity areas

High presence of challenge	Medium presence of challenge	Low presence of challenge

Investment lifecycle	Awareness	Discovery	Due diligence	Transaction	Post transaction
Financers, intervention 1 (FIs)	Some awareness gaps in understanding the WASH sector and recognizing attractive financing opportunities	Difficulty in sourcing WASH enterprises to finance; addressable enterprises can be limiting	Difficulty in assessing creditworthiness of WASH enterprises, especially if they work with governments	Some difficulty in creating products that meet WASH consumer needs and adjusting internal risk / quality systems to better serve WASH financing needs	
Financers, intervention 2 (investors, FIs)		Few ready enterprises and difficulty in identifying suitable ones beyond the usual suspects	Difficulty in assessing enterprises that have proven business models that can scale and be profitable	High search cost, small ticket sizes, limited visibility over ready enterprises increases transaction cost/ complexity	
Enablers (governments)	Lack of awareness, incentives, capacity to improve engagement with private operators in a way that increases financer/ investor comfort – including working more with MSMEs, setting of common standards etc.				

TA needs

- Support with understanding the WASH sector – size, business models, policies, attractive opportunities etc.
- Support with making the WASH MSME pipeline more visible[1]
- Support with conducting due diligence of WASH enterprises (higher need for FIs in intervention 1)
- Support with matchmaking/ facilitating transactions (higher need for investors in intervention 2)
- Support with creating a conducive environment for private capital for WASH

Note: (1) Support required to make enterprises more ready including the enterprises' TA needs have been covered as part of intervention 2

Intervention 3: Key TA needs of FIs across the investment lifecycle could be addressed through four specific TA interventions

A

WASH Fellowship

- Fellowship program with WASH / financing sector experts can be deployed as secondees to partner FIs and investors to help build internal capacity in scoping attractive WASH opportunities, assessing enterprises, designing products, building internal systems to manage risk and track etc.

B

Primers/ toolkits and targeted dissemination

- Create primers to help understand WASH (segments, business models, policies) and toolkits which provide detailed information on how to serve WASH opportunities (product design, risk mechanisms required etc.); these can be updated based on pilot learnings
- Conduct workshops, trainings with cohorts of financers combining all these learnings

C

Tools & market intelligence to identify and assess enterprises efficiently and accurately

- In the short-term, develop pipeline data for FI partners in intervention 1 and 2 and develop market research report(s) on SME financing opportunities; ensure to capture learnings from the pilots clearly
- Over time, these learnings can be merged into a one-stop platform that includes: *(ADB can decide on the intensity and scale of support)*
    - **An enterprise database** using secondary databases (e.g., GST, e-commerce data) and primary research in select states/ districts to showcase the WASH MSME pipeline
    - **A WASH centric risk assessment calculators** created in collaboration with market experts (including fintech players) that can support financers evaluate WASH enterprises
    - **Market trends** in WASH financing to reduce information asymmetry (e.g., total disbursements, percentage of non-performing assets, number of enterprises receiving capital)

D

Advocacy

- Leverage ADB's sovereign team to work with state governments, ULBS to advocate for adoption of common industry standards, equitable risk sharing in government tenders and adopt credit ratings for ULBs[1]

Annex

To assess them, we looked at the instrument's track record, applicability to solve WASH/India challenges and potential in unlocking more capital

History

History of uptake, frequency of instrument being used

- **High:** Strong evidence of financers participating, with quick uptake; frequently used
- **Medium**: Moderate evidence of financer participation, slow uptake; used with moderate frequency
- **Low:** Negligible evidence of financer participation; limited frequency

Investor interest

Likelihood of solving issues financers face in WASH in India and applicability across financers

- **High:** High likelihood of solving issues financers face and widely applicable
- **Medium**: Moderate likelihood of solving issues financers face and moderately applicable
- **Low:** Limited likelihood of solving issues financers face and limited applicability

Multiplier effect

Range of capital invested and multiplier it can generate

- **High:** Large amount of capital invested, with strong multiplier/ ripple effects (greater than $100M)
- **Medium:** Moderate amount of capital invested, with considerable ripple effects ($10-100M)
- **Low:** Small size of investment, with low multiplier effects ($0-10M)

Note: Analysis for TA interventions differs from the financial interventions, with multiplier effect excluded for these interventions (difficult to accurately estimate multiplier impact of indirect capacity building and support)

Financing: Most interventions are well suited to address the numerous WASH challenges in India (1/2)

Financial instruments

Instrument	Description	History	Investor Interest	Multiplier effect
Guarantee Facilities	Facility to protect against credit losses (MSME default)	• **High.** Demonstrated history of participation in FLDGs, partial guarantees across geographies and sectors	• **High.** Increases collateral coverage, reducing credit risk of loans. Suited for banks, NBFCs, MFIs that lend to higher risk (perceived) enterprises	• **High.** Potential to set up large facilities ($100- 500 million) or smaller targeted guarantees. Unlocks 2-3x of capital invested in the facility
Concessional loans	Loans at below market rates to FIs to increase financial viability of lending	• **Medium.** History of use across energy, infrastructure. However, low speed of capital deployment due to higher reporting requirements hinders effectiveness	• **Medium.** Lowers interest rate for end borrowers. Best suited for financers with high cost of capital & lacking liquidity (NBFCs, MFIs)	• **Medium.** Large ticket loans ($100-500 million) provided directly to financers; limited multiplier effect as it provides direct liquidity
Reward and incentives	Incentives for making WASH investments (direct or for on-lending)	• **Medium.** Origination incentives, impact bonuses have seen moderate deployment and participation. Lower costs for financers; previously catalysed retail WASH loans	• **Medium.** Increases capital deployed when financers have high cost of borrowing (NBFCs, MFIs) and when borrowers have high-cost sensitivity[1] (mature operators, emerging enterprises)	• **High - Medium.** Investment allocated varies from ($0.5-5 million); multiplier effect of capital is high (5-10x), as loans are affordable for both the borrower and lender
Earmarked funds	Dedicated capital for on-lending to WASH	• **High.** History across sectors and has seen ample financer uptake. Deployment speed may be slow for WASH due to lack of a sufficient deal pipeline	• **High.** Increases total capital allocated to the sector; forces financers to find investable opportunities across enterprises. Less suited when deal pipeline/ investment discovery is a bottleneck	• **Medium.** Large ticket loans ($100-200 million) allocated to financers; low multiplier effect (1-2x) of capital as the instrument provides liquidity directly to financers

Note: (1) Includes enterprises whose business models and unit economics are sensitive to the rate at which they borrow capital

Financing: Most interventions are well suited to address the numerous WASH challenges in India (2/2)

Financial instruments (blended)

Instrument	Description	History	Investor Interest	Multiplier effect
Project grants	Grant to projects/ financers de-risk investments for private capital	• **High.** Have been used to de-risk large-scale infrastructure, enabling financers to commit large loans; have also been used to reduce cost of capital by meeting output targets	• **Medium.** Reduces cost and perceived risk for banks, NBFCs, impact investors for investments to mature and emerging enterprises	• **Medium.** Can be for multi million-dollar infrastructure projects. Grants range from $2-10M covering 2-5% of project costs, with a large multiplier effect on capital unlocked (20-50x)
Pooled DFI fund	Private, philanthropic capital for targeted deployment	• **High.** Successfully used to mobilize capital and offer different asset classes/ return profiles within a single investment vehicle	• **High.** Reduces cost of funds for investors and allows impact investors, CSR and DFIs to co-invest under a fund; increases total capital allocated	• **Medium**. Capital invested ($50-500 million) through debt, quasi-equity or equity. Limited multiplier effect since the instrument provides direct capital
Accelerator	Provides seed financing to young SMEs/ start-ups	• **High.** Accelerators have helped increase investment readiness of enterprises across multiple sectors and geographies	• **Medium.** Provides initial capital to high-risk enterprises; enables impact investors and lenders to invest as enterprises scale up	• **Medium.** Range from ($5-50M); indirect multiplier effect as they provide high risk initial capital that later enables enterprises to raise larger rounds from investors
Impact bonds, green bonds	Targeted capital allocation to projects and/or impact outcomes	• **High.** Over 50 impact bonds deployed globally with ~70% of DIBs achieving both impact & capital return targets. Increasing interest for green bonds with the ESG push.	• **Medium.** Reduces cost of capital and increases capital allocated by large impact investors, institutional investors and banks to the sector	• **Medium.** DIBs range between $3-10M. Green bonds are capable of drawing in $50-200M; multiplier effect limited since they reach few at a time but can help establish proof of concept to attract more capital
Payment vouchers[1]	Stabilize revenue by "topping up" funds as needed	• **Low.** Payment vouchers yet to see wide scale adoption across financial landscape	• **Medium – low**. CSR funds could be well-positioned to purchase vouchers and direct it for use within WASH	• **Low.** Channels philanthropic capital to at need enterprises; negligible multiplier effect (1-2x) as it directly funds working capital constraints

Note: (1) Payment voucher (e.g., E-RUPI) is a cashless voucher based mode of payment that allows individuals and small businesses to receive payments without a card , payments app, or internet banking

Non-financing: Additionally, there are multiple TA interventions that can help improve financer capacity and enterprise addressability

	Instrument	Description	Investor Interest/ impact potential
Investor TA	**(Individual) financer capability support**	Assistance to lenders, impact investors (and governments if applicable) whilst setting up/ participating in WASH facilities/ funds - capital structuring, enterprise selection, risk mitigation etc.	• Effective structuring and support will **facilitate successful uptake of facilities** and ensure equitable risk distributed among SMEs, investors and government entities
Investor TA	**Sector knowledge support**	Create publicly available WASH primers, toolkits to generate interest in WASH enterprise financing, debunk myths around riskiness, and provide details around typical business models	• This can help serve as a **one-stop knowledge hub for financers** to meaningfully look at WASH opportunities (given such information is not readily available today)
Market building	**City WASH Marketplace[1]**	Marketplace to bring together enterprises, city governments and impact investors. Investors offer funding when SMEs win tenders, DFIs can backstop initial transactions/ government payments; investors in turn benefit from increased deal flow	• The WASH focused marketplace to bring **together providers of capital**, looking for investable opportunities, to enterprises that need capital. Marketplace will provide support to enterprises, governments, lenders and investors
Market building	**WASH Intelligence platform**	Platform to bring together the entire WASH ecosystem in one place and use data to drive investment decisions and research. Provide investors with support on discovery, funding, and tracking	• WASH focused platform to allow existing financers and those new to the sector to **shortlist and explore investable opportunities**; reduce time for diligence and sourcing
Advocacy	**Quality and process standards**	Targeted engagement with government entities to establish industry standards for materials and processes used in WASH; increases tender eligibility for SMEs and create addressable investment opportunities for financiers	• Adoption of common standards will allow financers to **compare enterprises** and in turn **increase enterprise formalization**, boosting financer confidence within the sector
Advocacy	**Credit ratings for ULBs**	Advocate for uptake of ULB credit ratings alongside loans provided to state and central bodies that rates government entities' ability to pay	• Credit ratings for ULBs will enable **financers to gauge risk of delayed payments** effectively and lend to enterprises that engage with higher rated government entities

Note: (1) There can also be a version of this without government involvement – one stop hub for information on WASH financing opportunities, typical enterprise financials, market trends that financers can use to guide investments