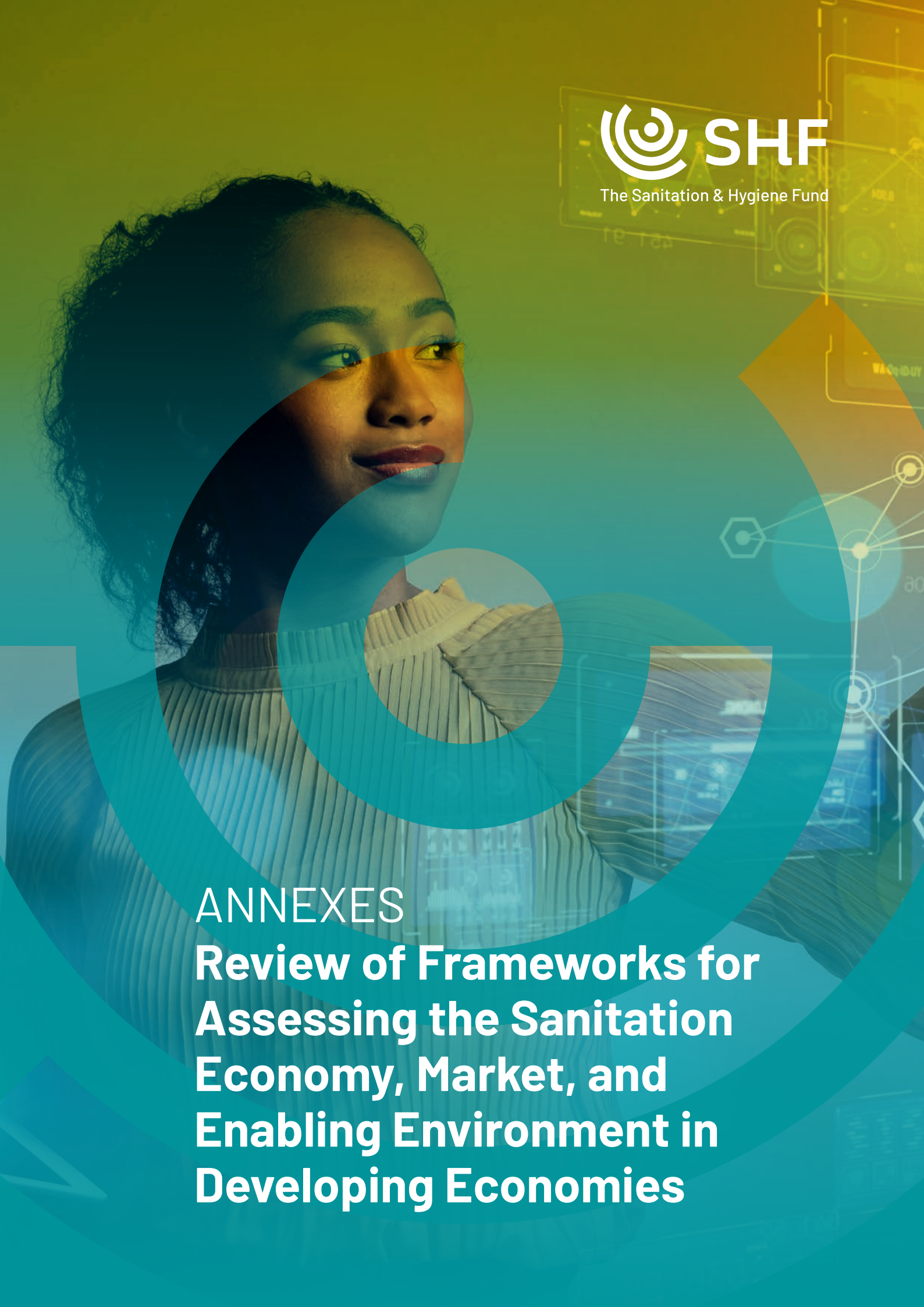

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ANNEXES

Review of Frameworks for Assessing the Sanitation Economy, Market, and Enabling Environment in Developing Economies

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ANNEXES

Review of Frameworks for Assessing the Sanitation Economy, Market, and Enabling Environment in Developing Economies

About the Sanitation and Hygiene Fund

The UN's Sanitation and Hygiene Fund (SHF) is dedicated to achieving universal access to sanitation, hygiene, and menstrual health through market-based approaches. SHF works with Low- and Middle-Income Countries (LMICs) to build robust sanitation economies and menstrual hygiene marketplaces.

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Annex 1: Tool and framework details

Accountability, Mandate and Resources Framework from *Sanivation*

Structure	**Different factors are considered in shortlisting focus countries:** 1. 1st Shortlisting Factors: Enabling Environment, Market Size, Mandates, Resources, Partners, Accountability. 2. 2nd Shortlisting Factors: Winning Projects, Setting Up Business, Implementing Projects.
Indicators	• Sanivation uses 20 criteria within the 6 factors at the initial shortlisting stage.
Data generated	• The framework has been applied in 9 African countries, 5 were shortlisted, and detailed market briefs were prepared for each of these 5 countries.
Data collection methodologies	• Data was collected by a team member using desktop research, interviews with local experts, and field visits. Local partners validated findings to ensure accurate and up-to-date information.
Presentation	• Data were presented in tabular form with average scores per factor and overall. This allowed for a comparative ranking of the countries based on the weighted criteria. A country market brief was also created for each country, covering key statistics, challenges, enabling environments, and an entry strategy.
Responses / decision-making support	• Sanivation used this framework to evaluate which countries were most suitable for expansion. Based on the 5 countries shortlisted, 2 final countries were selected based on criteria such as market size, interest from partners, and the enabling environment. • Sanivation developed country market briefs for the shortlisted countries, including key statistics, information on challenges, the enabling environment, a rationale for expansion, and an entry strategy. This process helped focus on 2 countries, enabling Sanivation to better understand the sanitation challenges in each country, where the opportunities lie, the competitive landscape, the level of political stability, and potential revenue or market size in sanitation. • These insights informed the development of a detailed market entry strategy with recommendations on who to collaborate with, milestones to track progress, and KPIs to measure success towards achieving revenue targets. This approach also allowed Sanivation to identify resource needs and prepare effectively for executing efforts in the focus countries over the years

Lessons for tool rollout	**General** • Increasing need for faecal sludge management as an estimated > 80% of the longlisted countries rely on onsite sanitation systems. • Lack of sanitation capacity within mandate holders was highlighted in shortlisted countries. • National governments and sanitation mandate holders are increasingly aware of the need for private-sector partnerships in sanitation. • Governments and funding institutions are eager to solve sanitation challenges. • Evidence of working faecal sludge treatment plants with waste-to-value models highlights the need for a circular economy and climate-friendly technologies. Existing online tools (e.g., JMP, SWA) provide valuable data on sanitation access. • Up to date Government resources, like policies are not updated on government websites **Applied to Sanivation** • Tailored market briefs helped clarify opportunities and gaps • Refinement of shortlisting criteria was done at each stage to allow the decision of what factors will determine countries to focus on. • There was a need to decide on a geographic focus within each country so that our resources are not thinly spread and can focus efforts in set locations based on opportunities identified • Agreeing on shortlisting criteria initially clarifies data collection and reporting needs. • Local connections expedite information validation processes
Indicators used by Sanivation	Sanivation initially used 20 criteria across 6 factors for shortlisting. Of these, 11 relevant as indicators for broader use, and 9 additional indicators were specific to Sanivation. **Enabling Environment** • Is the government pro-private sector or skeptical? • Is there capacity for PPP at the local level • Ease of Setting Up Business **Resources** • Are there resources allocated towards on-site sanitation - national/local budgets? **Market Size** • What is the current acceptance of FSM services? • % Fecal sludge not treated **Accountability** • Are there global accountability mechanisms for improving sanitation access? **Partners** • Exiting champions/enablers? • Do we have existing implementing partners

Sections included in country market brief	• Population and Sanitation Access
	  • Total Population (million)
	  • No access to safe sanitation facilities
	  • Safely managed sanitation
	• Types of Sanitation Facilities
	  • Population using septic tank (%)
	  • Population on improved latrines (%)
	• Population on sewer network (%)
	  • Open defecation (%)
	• Faecal Sludge Management
	  • Percentage Onsite Sanitation – Not safely managed
	  • Government Funding for Faecal Sludge Management
	• Sanitation Overview
	• Regulations and policies on Enabling Environment
	• Financial Allocations and Programs
	• Strategic Initiatives for Market Entry
	• SWOT Analysis
	• Target Geographic Locations

References	Sanivation Country Assessment Framework [CAF] – online tool Link

Barriers to Scaling Up Sanitation Enterprises from *Oxford University and Eawag*

Structure	1. Barriers to Scaling Up 2. Types of Sanitation Enterprises 3. Mapping of Barriers and Enterprise Types
Indicators	No indicators.
Data generated	36 unique sanitation enterprises from 20 LMICs. Data from 2023.
Data collection methodologies	Primary data for reported barriers and typology. Secondary data for thematic grouping. Key informant interviews for overall study.
Presentation	Results from survey participants were summarized under five categories of barrier (financial, regulatory, infrastructural, social, political) and were disaggregated by types of sanitation enterprises (based on years in operation, country of operation, number of customers, number of employees, value chain, sources of funding, target customer). The type of sanitation enterprises influences the type of barriers they face. This provides a matrix for interpretation.

Responses / decision making support	Not applicable
Lessons for tool roll out	Not applicable
Relevant indicators	There were no indicators as such. The Q-Method is a mixed-methods approach that assesses social perspectives on an issue and identifies patterns of opinion using rank-ordering of subjective statements and factor analysis. The final output has provided a matrix of types of sanitation enterprises which may be useful when considering investment options, and the corresponding barriers identified may be useful in answering how sanitation markets can be strengthened to be more investment-ready.
Citations/ sources	Wallock W, Sankara Narayan A, Thomson P (2024). Exploring the Barriers to Scaling Up Sanitation Enterprises Using Q-Methodology. ACS ES&T Water: 4, 3986–3995. Link.

Building blocks from *Sanitation and Water for All (SWA) partnership*

Structure	**Building blocks** 1. Sector policy and strategy 2. Institutional arrangements 3. Sector financing 4. Planning monitoring and review 5. Capacity development
Indicators	No indicators.
Data generated	20-30 countries
Data collection methodologies	Prior to some SWA high-level meetings, questionnaires were sent to SWA member countries for them to conduct a rapid appraisal of their enabling environment, and conclude what are the priority bottlenecks to be addressed.
Presentation	Traffic light scoring of building blocks by rural and urban areas and by water and sanitation.
Responses / decision making support	Scoring the building blocks has been useful for countries preparing for the SWA high-level meetings, including the briefing of ministers, inclusion in presentations, and the ensuing discussion and outcomes.
Lessons for tool roll out	While the simple assessment stimulates some discussion prior to the high-level meetings and increases awareness of bottlenecks, it is not a detailed assessment and there is limited tracking, unless a target has been committed to under the SWA Mutual Accountability Mechanism.
Relevant indicators	No indicators.

Citations/ sources	SWA (2016). Building Blocks. Link.

Building blocks from *IRC, The Netherlands*

Agency	IRC
Structure	**Building blocks** 1. Policy and legislation 2. Planning 3. Institutions 4. Finance 5. Infrastructure 6. Regulation and accountability 7. Monitoring 8. Water resource management 9. Learning and adaptation
Indicators	Each building block is assessed using a series of benchmark statements as indicators. The benchmark statements are scored on a scale of 1-5 based on the degree to which the benchmark statements are true. There are a number of different sets of benchmark statements (indicators) for each building block, each of which are adapted for use in a certain subsector (water, sanitation, WASH in institutions, etc), and for different levels (national, district). There are also adapted versions of the tool for analysis per service delivery model (e.g. on-site sanitation w/emptying, on-side w/out emptying, etc), as well as versions for assessing the strength of the building block per step of the sanitation chain.
Data generated	9 countries
Data collection methodologies	Varying data collection methodologies and levels of participation possible - ranging from multi-day participatory sector scoring workshop to desk review by a consultant with validation via key informant interviews.
Presentation	Heat map with score consolidated per building block per subsector, or per building block per service delivery model. It can show multiple years to demonstrate change over time (dark green, light green, yellow, orange, red). Alternative graphics have also been used for showing change over time (e.g. line or spider graphs).
Responses / decision making support	A series of reflection questions are provided to support interpretation, such as 'which building blocks are stronger at national level vs district level?', 'can you see where systemic elements are strong at national level but missing adoption and use at district level?' 'What strengths in the system could be leveraged for driving change in weaker and less-developed areas?'

Lessons for tool roll out	It is important to have the right people in the room, and use the tool to prompt reflective discussion. The justification and narrative explanation of the scores is often more important than the score itself, though the simplified heatmap is great for engaging stakeholders and sparking (constructive) debate. The tool can be long or heavy, it may be used as a baseline with updating only priority areas or building blocks in subsequent years. The analysis per service delivery model often provides the most actionable insights, but requires a more detailed and technical engagement of sector exports from multiple levels. The tool can and has been often customized per context. It has been adapted many times over the years, and the latest version (developed for use in the FCDO WASH Systems for Health Program) has systematically added benchmark statements that focus on Gender and social inclusion, and on climate resilience, to every building block.
Relevant indicators	**Sanitation indicators across all the building blocks at national level are as follows:** • Funding mechanisms and flows can be identified for the cost components of capital expenditure, capital maintenance, direct support and indirect support. There are no redundancies. • All the cost components are covered/taken into account in the sector budget. There are no budget gaps. • There are subsidies/subsidy mechanisms to address equity; cross subsidy and targeted subsidy for latrines. • It is defined who is responsible for paying capital expenditure and capital maintenance. • Sector budgets and expenditures are justified in parliament with sector performance data. • The project delivery models and procurement procedures for capital expenditure projects (subsidies for onsite sanitation infrastructure, public latrines, treatment facilities, sewers) are clearly articulated in government-sanctioned implementation manuals. • The project delivery models and procedures are sufficiently differentiated for different segments of the population and articulated with the service delivery models. • There are mechanisms and capacity in place to ensure due diligence, regulation and control over procurement. • The project delivery models ensure good quality of works and of the institutional development process. • The manuals for project delivery are followed by the different national-level stakeholders. • Asset ownership is clearly defined in laws and regulation. • Responsibilities of the national and decentralized level bodies are clearly defined, and there are no gaps or overlaps between them. • Staffing requirements at national level (ministries, departments except the service authority) and decentralized bodies are clearly defined and the positions at national level are filled.

Relevant indicators	• The responsibilities and institutional set-up for service authorities for the different Service Delivery Models are clearly defined and understood. • Staffing requirements for the service authorities for the different Service Delivery Models are clearly defined in terms of number of fulltime-equivalent (FTE), or specific job profiles. • There are institutionalized learning platforms and/or mechanisms at sector level (joint sector reviews, donor platforms, donor-government platforms, national learning alliance, thematic working groups, resource centres, sector web sites). • The platforms are sufficiently representative of the different sector stakeholders. • The reflections from these platforms are systematically taken up in policies and strategies through "undertakings" (targeted actions). • The national platforms are linked to the decentralized level. • There is a national monitoring framework. The different sectoral monitoring systems speak to each other, in particular to the National Bureau of Statistics. • The monitoring systems include service delivery indicators (service level, service provider performance, service authority performance) and are covering the whole sanitation supply chain (include faecal sludge management). • The monitoring systems actively cover the entire country (all districts, all communities, all service providers). • The data from the monitoring system are analyzed and used at sector level for macro-level planning, trends analysis and policy making. • The data in the national monitoring system are regularly updated. • National planning mechanisms exist and they are based on a vision for reaching the WASH targets. • An inventory exists of all (or most) infrastructure assets (including public latrines), including age and current physical state of assets. • The roles and responsibilities for asset management are clearly defined and separated between service providers and authorities, including differentiation between minor and major maintenance (not including households). • Asset management is operationalized through standard tools, guidelines and trainings. • Planning and budgeting is coordinated with donors. • The national plans take into account both capital investment needs and the needs to ensure sustainable service delivery, direct support and capital maintenance. • The national plans take into account in-country differences (in terms of geography, demography and water resources), recognising the different Service Delivery Models.

Relevant indicators	• National Sector Policy and Strategy is in place. • A legal framework for the sector is in place. • Norms and standards for quality of work and service delivery are in place. • National guidelines for development and management of services are in place. • There is a regulator for the services or regulatory functions are delegated to sub-national institutions (through contracts). • The entity equipped with regulatory functions sets tariffs for sewerage connections and/or emptying fees, rules for private emptying and for private sector players on-site (emptying techniques, transport and disposal). • The entity equipped with regulatory functions uses data (monitoring data, audits, score cards) to guide performance management, and apply effective enforcement (incentives, penalties) in the three areas of regulation mentioned in the previous statement. • There is legislation and/or policy in place that clearly defines priorities and processes related to interference with water bodies and aquifers, regulation and water uses. • There are national and sub-national water resource management institutions in place and able to undertake their mandated functions in the area of sanitation for water resource management (catchment authorities, river basin authorities). • There are mechanisms or platforms in place to allow representation of service authorities and/or service providers for WASH services in Water Resource Management bodies.
Citations/ sources	IRC (2018). Understanding the WASH system and its building blocks. A Huston and P Moriarty. Link. IRC (2024). WASH Systems for Health Results Framework 2024-2028 (WASH Systems Index). Developed by IRC for the FCDO. Link.

Building blocks from *WaterAid*

Agency	WaterAid
Structure	• Policy, strategy and planning • Institutional arrangements and capacity • Coordination and integration • Financing • Service delivery and behaviour change • Monitoring • Accountability and regulation • Gender and social inclusion • Environment and water resources • Government leadership • Active and empowered people and communities
Indicators	88 indicators (guiding questions)
Data generated	12 countries (usually in countries where WaterAid offices have chosen a universal WASH coverage aim): Bangladesh, Cambodia, Ethiopia, Liberia, Madagascar, Malawi, Mozambique, Nigeria, Nepal, Rwanda, Tanzania, and Uganda.
Data collection methodologies	Building blocks scored in consultative meetings with stakeholders with national and sub-national stakeholders.
Presentation	Traffic light scoring of building blocks (score from 1-4) with narrative justification
Responses / decision making support	No information.
Lessons for tool roll out	For the scoring of building blocks, participants in the workshop should be adequately briefed and prepared to discuss systems strengthening issues. A SWOT analysis and literature review of policy documents conducted before the building block scoring might provide a stronger basis for discussing what is working and what is not. Translation of the methodology and indicators to local language supported more detailed discussion and produced stronger results. A distinction in answering indicators should be made for national and sub-national levels. Greater efforts should be made to ensure broader participation in the workshops – for example, people living with disabilities, the private sector, and grassroot activists. To ensure consistent scoring, more guidance should be provided about how to quantitatively score each of the guiding questions and arrive at the overall score of each building block. The exercise of prioritizing the 11 building blocks in order of their potential for impact on the WASH system was identified as one of the most useful parts of the workshop. The prioritization helped to inform the development of priority actions.

Relevant indicators	**Policy, strategy and planning** • Do national WASH-related policies, strategies, plans and roadmaps exist, and do they adequately address the critical challenges faced, including issues of gender, inequality and sustainability? • Are strategies, plans and roadmaps for achieving policy objectives clearly defined and understood at the local level? • Are strategies, roadmaps and annual plans developed through a transparent, participatory and inclusive process to achieve policy targets? • For WASH in health: To what extent is WASH prioritized in national health development budgets and plans? • Do policies, strategies, plans and roadmaps establish realistic targets and milestones and identify priority areas for service coverage (based on identified needs)? Do targets align to the SDG timeline and SDG indicators? • Is there a strategic framework in which environmental and climate change adaptation policies and strategies (including National Adaptation Plans (NAPs) and Nationally Determined Contributions (NDCs)) are well aligned with those of WASH, and vice versa? If so, how well is it used to guide programs and interventions towards building more resilient services and behaviours? • To what extent are WASH plans based on an analysis of risk and vulnerability, which includes climate change considerations and disease vulnerability? **Institutional arrangements and capacity** • Are roles and responsibilities of the institutions mandated for ensuring safe, sustainable, universal WASH in different settings (rural/urban; household/community; schools; health care settings) clearly defined? • Has both financial and decision-making responsibility been decentralized? To what extent has decentralisation of responsibility been achieved? • To what extent do the institutions responsible for WASH have the capacity, resources and management structure needed to carry out their roles and responsibilities effectively? Have gaps between existing human capacity and policy/strategy targets been assessed? • Are there training and professional development opportunities for WASH sector workers? Does the relevant ministry have adequate training manuals and tools to increase WASH sector worker capacity? Is there specific training, coaching, development opportunities for women working in WASH? • Do formal and informal WASH workers e.g. sanitation workers, have safe and dignified working conditions? • Are institutions responsible for WASH provision and decision-making diverse and reflective of the populations they serve? For example, by having women staff and leaders. • To what extent are institutional roles and responsibilities for ensuring climate resilient WASH clearly defined (for example between actors in the WASH, environment and climate change sectors)? • To what extent do the institutions working with WASH have the capacity to address the integration of climate change risk reduction into WASH delivery and ongoing management?

Relevant indicators	**Coordination and integration** • How well do stakeholders (including NGOs) align their approaches with national policy and guidelines? • Is there a mechanism to support collaboration and coordination between stakeholders in the WASH sector and between the WASH sector and other sectors (Health, Education, Climate as well as including rights groups, small scale private sector, media etc)? Are water, sanitation and hygiene given the same priority in government decision-making? • Is there an effective review process that tracks progress towards sector plans and targets? Are all relevant stakeholders (including women and representatives from marginalized groups) involved in the review process? • How well do government departments responsible for WASH coordinate with each other (including the Ministry of Finance, Ministry of Education and Ministry of Health)? E.g. joint planning, representation of different departments in coordination meetings... • To what extent are there integrated WASH programs? E.g. health, education, nutrition, climate change programs that incorporate WASH and/or hygiene behaviour change components. • What form of inter-ministerial/inter-departmental coordination mechanism exists between departments responsible for climate change, environment, agriculture, energy, water resources and for water supply and sanitation? • How is climate change risk and vulnerability integrated into sectoral dialogues, joint sector reviews, information exchange and coordination meetings – thus strengthening collaboration between departments and agencies? **Financing** • How well are the life cycle costs of ongoing service provision and behaviour change known and matched to sources of ongoing funding, including national and sub-national government budgets? (including costs for large-scale capital and maintenance expenditure and replacement costs, and ongoing behaviour change) • Do criteria exist for determining equitable allocation of funds and are they applied? Is there a mechanism to allocate separate funds for water, sanitation and hygiene or WASH as a whole? • To what extent are guidelines on affordable tariff setting and tariff collection understood and enforced? (at which level do they exist – national or local?) • Does the national strategy / roadmap have a built-in costed plan and financing modalities? Or finance strategy? • Has an adequate budget for the proposed scope of work set out in the WASH strategy, roadmap, annual WASH been agreed? What proportion of the budget has been allocated? What percentage is currently utilized? • Is there a mechanism to track budget and expenditure? Is there a mechanism to track expenditure across departments and separately for water, sanitation and hygiene? • Are medium-term funding allocations for WASH, health and education sufficient to meet local WASH targets? • Are budget and funding allocations sufficient to meet and sustain universal WASH in the focus area and support effective community and stakeholder participation?

Relevant indicators	• Is there a comprehensive assessment of the cost of climate adaptation for WASH (in schools, health care settings, households and communities) under different scenarios, i.e. prolonged droughts and more frequent floods? Are funding gaps estimated? • To what extent are national priorities for risk management and adaptation localized and supported with adequate financing mechanisms and sufficient funds? **Service delivery and behaviour change** • Are there nationally accepted / approved technology options, approaches, tools and packages for hygiene behaviour changes in different locations (rural/urban; household/community; schools; health care settings)? To what extent are these applied/enforced at the local level? • Are there nationally accepted / approved design and construction standards to ensure the quality of infrastructure, and inclusive and accessible technologies, in different locations (rural/urban; household/community; schools; health care facilities)? To what extent are these standards applied/enforced at the local level? • Are service levels and performance criteria clearly defined and understood by service providers and consumers? • How appropriate are models for supporting service delivery in different locations? How effectively are the models being applied in practice? • Are post-construction and post intervention / promotional support mechanisms in place to develop and support service providers and communities? To what extent are they effective at sustaining services and behaviours? • Are roles and responsibilities for all components of defined service delivery and behaviour change models clear (e.g. assessment/formative research, design, installation / implementation, operation, management, emptying, maintenance, treatment, disposal, monitoring etc)? • Are end-users / communities (especially women and marginalized groups) involved in planning the type of service to be provided and behaviours to be reinforced? • Are water and sanitation service delivery and hygiene behaviour change management mechanisms based on locally led risk analysis that addresses climate change factors and do these mechanisms minimize population exposure to potential failure arising from climatic threats in different contexts? • To what extent are water and sanitation service delivery and hygiene behaviour change management mechanisms resilient to climate change and contributing to build community resilience to the impacts of climate change? • To what extent are users/communities practising and enforcing the behaviours that ensure climate resilience/water resource sustainability?

Relevant indicators	**Monitoring** • Are there nationally agreed indicators and standards for service delivery and behaviour change that are consistently monitored? • Is there a functional local WASH management information system? Is WASH integrated into other sector MIS e.g. health and education? • Is there a national monitoring system which records WASH data and other relevant sector information? How effective is it? • To what extent is local monitoring data (on WASH and disease burden) collected regularly and used to inform sector coordination and planning processes, including targeting of priority areas? To what extent is WASH and health data accessible to different departments and stakeholders? • Are plans to monitor priority threats to water resources and water and sanitation infrastructure developed and to what extent are monitoring plans used? • How effective has monitoring data been in managing and/or addressing realized threats? **Accountability and regulation** • Are regulatory mechanisms for WASH at a national, sub-national and local levels in place and operational? To what extent do they enable governments to hold service providers to account? • How are users / citizens able to hold service providers to account for the quality of WASH services and behaviours? • Are these mechanisms accessible and appropriate for women and marginalized or excluded groups? • How effective are mechanisms that enable users / citizens to hold governments accountable for WASH decision making? • How diverse is the range of users / stakeholders providing feedback through accountability mechanisms? • Are there governmental mechanisms to monitor progress towards climate change adaptation national targets and international commitments that are related to water and sanitation (e.g. NDCs; NAP) and is the information made public? • Are there accountability mechanisms to regulate and hold large water users to account and to ensure their operations don't pose a risk to water resources or to people's right to water and sanitation? **Gender and social inclusion** • How well are the barriers to achieving greater gender equality and social inclusion in WASH being addressed? (think about institutional, environmental and attitudinal barriers) • How are women participating in sector forums, including coordination processes?

Relevant indicators	• How well are sex, age, wealth and disability related WASH inequalities being monitored and used in government decision-making? (e.g. access for female-headed households or by income quintile, or availability of female-friendly public/community toilets etc). • To what extent do service delivery models and behaviour change approaches address the needs of women and marginalized and vulnerable people? • To what extent are issues of gender and social inclusion integrated into health workforce training (WASH and HCF, WASH and IPC) and WASH-Fit processes? • To what extent is investment in WASH prioritized/targeted towards most marginalized/in need populations/locations? • How well understood are the different impacts of climate change on men and women, sexual and gender minorities, and marginalized and vulnerable people as they relate to water, sanitation and hygiene? • To what extent are women and men, and marginalized and vulnerable groups, meaningfully involved in vulnerability assessments and in developing and implementing adaptation strategies? **Environment and water resources** • How are threats to water security identified and what process is in place to assess them? • Are catchment management plans in place and implemented to ensure water resources and land use are well managed? • Are water allocations determined in line with sustainable use, social equity and economic efficiency? Are faecal waste management policies and practices equitable and risk-based? • To what extent are the gender dimensions of water security threats understood and used to inform mitigation and response plans? • What level of climate, faecal waste flows and water resources monitoring data is available, at appropriate temporal and spatial scales? How appropriate are data collection and storage standards applied to inform national and/or catchment scale water resources strategic planning? • How well have climate data and climate change projections been used to conduct a risk analysis (with local actors leading the process)? And does that risk analysis consider different climate hazards, the level of exposure of infrastructure and population, as well as vulnerabilities of the water and sanitation sector (e.g. vulnerability mapping) in relation to climate change and to prioritising interventions? • What form of drought and flood management strategies exist in the country (linked to early warning and contingency planning)? Do they prioritize the use of water for human consumption over other uses in the event of scarcity? Do they include scheduled/seasonal sludge emptying?

Relevant indicators	**Government leadership** • To what extent are government leaders ensuring WASH is well coordinated, planned, financed and monitored? • To what extent do government leaders engage and listen to women and most marginalized people? • To what extent are WASH interventions aligned to government policy and plans? • To what extent do government leaders have a vision for WASH and spearhead and/or initiate WASH interventions/programs • To what extent are women and marginalized people actively involved in government WASH decision-making as leaders? • How is government demonstrating active leadership on the climate resilient WASH agenda? • To what extent has government created or supported a conducive environment for private sector engagement in WASH in the local area? • To what extent are private sector involved in WASH service delivery and hygiene behaviour change initiatives, backed by government? **Active and empowered people and communities** • To what extent do people / communities have access to information about WASH e.g. WASH rights, coverage, water quality, WASH budgets, planning processes, importance of hygiene practices? • How actively are users/communities engaged in planning and monitoring of WASH services to ensure their rights are met? • To what extent do WASH and hygiene behaviour change programs empower marginalized and excluded communities? • To what extent is a people-centred approach to WASH in healthcare settings adopted and addressing barriers to health service uptake and delivery? • To what extent do users / communities know of and demand their rights to water and sanitation? • To what extent do women and marginalized people know of and demand their rights to water and sanitation? • To what extent are people in the community willing to engage, be responsible and invest in WASH facilities, to pay for services and hygiene products, and practice hygiene behaviours? • To what extent are people/communities and institutions undertaking local adaptation measures to make WASH services and behaviour change programs more resilient? • Is there a mechanism in place for people/communities to demand action on climate resilient WASH?
Citations/ sources	WaterAid (2021). Measuring WASH Systems Change through Participatory Building Block Assessments. Lessons from the SusWASH Programme in Cambodia. December 2021. Link. WaterAid (2019). Beyond building blocks? Identifying and monitoring dynamic drivers of sector performance. Synthesis report, March 2019. Link. WaterAid (2024). Water, sanitation and hygiene system building block assessment tool. Link.

Citywide Inclusive Sanitation (CWIS) Initiative with city-level assessment frameworks implemented by *World Bank, BMGF, Athena Infonomics, CSDA, and ESAWAS*

Structure	**Overall structure of CWIS** Service outcomes 1. Equity 2. Safety 3. Sustainability Service functions 1. Responsibility 2. Accountability 3. Resource planning and management **City Service Delivery Assessment (CSDA)** Enabling (current policies, planning issues and budgetary arrangements) 1. Policy and legislation 2. Planning and budgeting 3. Inclusion **Delivering (capacity and financing mechanisms to develop improved services)** 1. Funding 2. Capacity and outreach 3. Inclusion **Operating and sustaining** 1. Regulation and cost recovery 2. Institutions and service providers 3. Inclusion
Indicators	Athena Infonomics: 20 indicators The City Service Delivery Assessment (CSDA): 24 indicators for sewered systems and 24 questions for non-sewered systems The World Bank: >80 indicators used in sample indicators for use in urban sanitation projects. Indicators not yet available for World Bank's "Sanitation Rapid Assessment Guidelines". WSUP Citywide surveys of water and sanitation service levels: >100 questions ESAWAS: assessment areas but no indicators apparent. CWIS Performance Assessment System in India: 26 indicators
Data generated	Not known.
Data collection methodologies	Various.
Presentation	Tabulation of scores per indicator and overall, by sewered and non-sewered options.

Responses / decision making support	Indicators support a systematic process for working with stakeholders to assess the enabling environment for citywide inclusive sanitation, and to present the results in a simple and accessible way. For example, the CSDA framework includes an Action Checklist to help stakeholders identify and prioritize immediate and follow-up actions to improve the enabling environment for the delivery and sustained operation of inclusive sanitation services across a city.
Lessons for tool roll out	Not available.
Relevant indicators	1. **Responsibility** • Mandates should provide clarity on who is responsible for ensuring different elements of the sanitation service chain (ESAWAS/WSUP) • Mandate "service chain boundaries" must be clear (ESAWAS/WSUP) • The service scope of mandates should be complete and inclusive (ESAWAS/WSUP) • Formal de jure mandates should be clear relative to actual de facto practice (ESAWAS/WSUP) • Legal mandate for service delivery is clear and inclusive (Athena) • Approved local service authority staff positions within mandated authority areas are sufficient to execute mandate (Athena) • Local service authority staff positions are filled and capable to execute mandate (Athena) • Local service authority sanitation budget is a separate line item independent of water, solid waste management, health, or environment (Athena) • Local authority's sanitation revenue is ringfenced (Athena) 2. **Accountability** • Efficiency in redressal of customer complaints (CEPT) • Efficiency in collection against arrears (CEPT) • Efficiency in collection of sewerage charges (CEPT) • Legal mandate for service delivery is clear and inclusive (Athena) • Approved local service authority staff positions within mandated authority areas are sufficient to execute mandate (Athena) • Local service authority staff positions are filled and capable to execute mandate (Athena) • Local service authority sanitation budget is a separate line item independent of water, solid waste management, health, or environment (Athena) • Local authority's sanitation revenue is ringfenced (Athena)

Relevant indicators	3. **Resource Planning and Management** • Recruited to sanctioned staff in WW (%) (CEPT) • Does the ULB have various mechanisms to facilitate collection of bills at ward level like e-kiosks+ civic centres? (CEPT) • Does the ULB have an official council website? (CEPT) • PSP in construction/operation/maintenance of sanitation infrastructure (CEPT) • Involvement of external agencies (like NGOs, CBOs, private agencies) in service provision to slums (CEPT) • Private Septage machines licensed by ULB (CEPT) • Clear financing framework at the national level to guide allocation of resources (Athena) • National/ state level decision-making process for sanitation budget allocation is transparent, inclusive, and informed by city /service area strategies (Athena) • Mandated service authorities are delivering inclusive services (Athena) • Clear financing framework at the city level to guide allocation of resources (Athena) • City level decision-making process for sanitation budget allocation is transparent, inclusive, and informed by city /service area strategies (Athena) • Quality of investment decision-making (Athena) • Integrated citywide inclusive sanitation strategy (Athena)
Citations/ sources	Internet 'home' of CWIS is here. Athena Infonomics and the Bill and Melinda Gates Foundation. CWIS Measurement. Link. Bill and Melinda Gates Foundation. Citywide Inclusive Sanitation: A Public Service Approach for Reaching the Urban Sanitation SDGs. A Schrecongost, D Pedi, JW Rosenboom, R Ban. Link. CEPT University (India). Discussion note on PAS CWIS Assessment Framework. Link. Blackett I and Hawkins P (2019). City Service Delivery Assessment for Citywide Inclusive Sanitation - Tool and User Guide. Link. Available on the FSMA archive. World Bank. CWIS. Link. World Bank. Sample Indicators for Urban Sanitation Projects. Link. World Bank. Sanitation Rapid Assessment Guidelines. Link WSUP (2018). Citywide surveys of water and sanitation service levels: design and methodology. Urban Sanitation Research Initiative. Link.

Collaborative behaviours from *Sanitation and Water for All (SWA) partnership*

Structure	**Collaborative behaviours** 1. Enhance government leadership of sector planning processes 2. Strengthen and use country systems 3. Use one information and mutual accountability platform 4. Build sustainable water and sanitation sector financing strategies
Indicators	18 indicators
Data generated	Country profiles generated for 68 countries in 2020
Data collection methodologies	Combination of secondary data and key informants
Presentation	Tabular form in 6-page country profiles. Many indicators still have 'No data'.
Responses / decision making support	Not known.
Lessons for tool roll out	Importance of using secondary data sources.
Relevant indicators	**Enhance government leadership of sector planning processes** • A formal government-led multi-stakeholder national coordination mechanism exists for sector planning and review • Support for government leadership of multi-stakeholder sector planning / WASH sector plan • Activities captured in national WASH plans or aligned through mutual agreement • Activities captured in national WASH plans or aligned through mutual agreement • ODA allocated to water and sanitation policy and administration and education and training **Strengthen and use country systems** • Government defined public financial management • and procurement systems adhere to good practices • Public sector budget and expenditure reporting enables the number and cost of civil servants working at central, regional and local levels to be estimated for different sectors • Development partners adhere to country planning processes and policies • Amount of ODA allocated to strengthening country systems compared to WASH infrastructure projects

Relevant indicators	**Use one information and mutual accountability platform** • A formal government-led multi-stakeholder review mechanism exists • Routine monitoring systems provide reliable data to inform decision-making in WASH • Data collected through partner programs feed into country monitoring systems • ODA is allocated to strengthening or developing (in the absence of) monitoring and evaluation systems **Build sustainable water and sanitation sector financing strategies** • Data are available on taxes, transfers, and tariffs and their contribution to the WASH sector • Finance plan exists and how if operations and basic maintenance is to be covered (tariffs or household) • Data are available on whether WASH assistance is a) on treasury or b) on budget • WASH financing is predictable
Citations/ sources	SWA (2017). Collaborative Behaviours. Link. SWA (2020). Country Profiles. Link.

Equiserve from *Athena Infonomics*

Structure	**Service modelling outcomes:** 1. Overall Safe Coverage 2. Public expenditure by income groups and sanitation hardware (sewered, non-sewered) 3. % Poor reached in each hardware 4. Price paid by households by each sanitation service chain (sewered, non-sewered) 5. Utility financial coverage 6. Water requirement by sanitation hardware 7. Total waste safely managed
Indicators	The dashboard presents a comparison of scenarios for eight indicators on three outcomes (equity, safety and sustainability) and other indicators related to lifecycle costs, subsidies, private sector income, operational deficit and market structure (see indicators below).
Data generated	Cities in 12 countries: 9 in Africa, plus Haiti, Cambodia and Bangladesh.
Data collection methodologies	Several major global sanitation players and country-level associations are Equiserve partners and actively using the tool. Data are collected by the team from key informants, documents and local data made available.
Presentation	A number of user stories have been made available to demonstrate what the tool can do. The Equiserve tool provides a dashboard that provides data for each service segment (different technology or service options, and no service) and separately for low-income and other population groups.
Responses / decision making support	Other outputs include the coverage increase that can be bought for different investment volumes. The tool enables scenario planning to analyze different sanitation market levers and manage trade-offs

Lessons for tool roll out	Roll out has been aided by quarterly online training provided by Athena Infonomics on how to use the tool which can be attended free of charge by anyone. On-line tool tutorials and materials are available. On-demand training can be made available.
Relevant indicators	The types of information collected and converted to indicators are shown in the data manual. The annex of the data manual provides a full list of the variables for the calculations. Indicators are included on: **Equity** 1. % poor reached by each hardware 2. Public expenditure by income groups and sanitation hardware (sewered, non-sewered 3. Price Paid by households by each sanitation service chain (sewered, non-sewered) **Safety** 1. Overall Safe Coverage 2. Total waste safely managed **Sustainability** 1. Utility financial coverage (revenue/cost ratio and net profit or loss) 2. Total government costs 3. Water requirement by sanitation hardware **Other indicators** 1. Market structure (degree of regulation) 2. Lifecycle costs 3. Annual Private Sector Net Income 4. Total and subsidized new household facilities year on year 5. Total containment subsidy paid out 6. Total operational deficit 7. Capex by infrastructure components
Future work	Ongoing development of Equiserve is responding to client demand, including monitoring of planned versus actual, tariff model, business model guidance, service/ expenditure planning, tracking tools to support implementation of EquiServe-guided, investment scenarios, and development of a water module. An application is upcoming in Nepal. EquiServe is also planning to expand analysis to an energy module within the sanitation and water modules. There is a plan to strengthen the tool by improving data processing abilities and making deployments more efficient.
Citations/ sources	Equiserve resources. Athena Infonomics (undated). Urban Sanitation Market Overview: India. Athena Infonomics and Open Capital. UK Aid: The IMPACT Programme. Athena Infonomics (undated). Urban Sanitation Market Overview: Kenya. Athena Infonomics and Open Capital. UK Aid: The IMPACT Programme. Athena Infonomics (undated). Impact Investing in Urban Sanitation: Investment Tool. Athena Infonomics, Open Capital and UK Aid. The IMPACT Programme.

Framework for Integrity in Infrastructure Planning (FIIP) from *Water Integrity Network (WIN)*

Structure	Seven risk areas related to integrity and its principles (Transparency, Accountability, Participation, and Anti-Corruption – TAPA) across the infrastructure development cycle (planning, preparation, tendering, implementation): 1. Undue influence in decision-making 2. Non-accountable decision-making 3. Unmanaged conflict of interest 4. Biased preparation processes 5. Priority misalignment 6. Misuse of public funds 7. Biased or manipulated budget processes
Indicators	35 indicators
Data generated	Pilot study to test for feasibility, reliability and relevance in ten large infrastructure projects in two Latin American countries.
Data collection methodologies	Collected by an in-country project team ('procuring entities') based on information normally available during infrastructure development. A disclosure template was developed to identify the data points connected to each indicator. To reduce subjectivity of the assessment, a validation meeting with the procuring entity was used to evaluate if the proposed data points helped to identify anomalous patterns and grey areas in planning and decision-making.
Presentation	Tabular presentation of data outputs.
Responses / decision making support	The framework is designed to enable government officials, civil society, and policymakers to flag unusual patterns in early phases of water and climate adaptation infrastructure development. The ultimate aim is to improve infrastructure planning and preparation by limiting undue influence and biased decision-making, to ensure the effective use of financial resources and achieve the policy objectives of government, including SDG 6.1 and 6.2.
Lessons for tool roll out	The pilot study revealed many important uses of the framework.

Relevant indicators	**Undue influence in decision-making** 1. Project Beneficiaries 1.1. Number of beneficiaries 1.2. % of the beneficiary population living under USD 5/day 1.3. % of the beneficiary population living in informal settlements 1.4. % of unserved population to be served by the project 2. Project Location 2.1. % of multidimensional poverty 2.2. Water stress level 2.3. Drought risk 2.4. No-drinking water risk 2.5. Distance to a similar facility 3. Project Timing 3.1. Funding approval date 3.2 Project authorisation date 3.3. Construction start date 3.4. Non-compliance with stipulated tender periods 3.5. New or previous government investment **Non-accountable decision-making** 4.Engagement processes 4.1. Lobbying transparency 4.2. Public consultation meetings 4.3. Access to information requests 4.4. Responses to access to information requests 5. Environmental and Social Impact 5.1. Environmental and Social Impact Assessment 5.2. Environmental impact category 5.3. Climate measures 5.4. Inclusive design and implementation **Unmanaged conflict of interest** 6. Vetting Systems 6.1. Individuals involved in project funding approval 6.2. Conflict-of-interests in project funding approval 6.3. Ownership structure in project funding approval Biased preparation processes

Relevant indicators	**Biased preparation processes** 7. Project feasibility 7.1. Project brief or feasibility study 7.2. Alternative project analysis 7.3. Cost-benefit analysis 7.4. External appraisal 7.5. Needs assessment 7.6. Asset lifetime **Priority misalignment** 8. Policy coherence 8.1. Project part of a public investment plan 9. Project scope 9.1. New or pre-existing infrastructure **Misuse of public funds** 10. Project value 10.1. Project size (large projects - above US$ 7 million, or medium and small-sized - below US$ 7 million) **Biased or manipulated budget processes** 11. Budget allocation 11.1. Budget for preparation, construction, operation and maintenance
Future work	With the completion of two pilot tests, the framework has been refined and is ready for application. Materials can be accessed by contacting WIN.
Citations/ sources	A Framework for Integrity in Infrastructure Planning (FIIP). A data tool by WIN, CoST and the IDB, to improve early-stage water infrastructure planning and decision-making. Water Integrity Brief, July 2023. Link.

Global Analysis and Assessment of Sanitation and Drinking-Water from *WHO, UN-Water and UNICEF*

Structure	**Country survey has four sections:** 1. Governance 2. Monitoring 3. Human resources 4. Finance **Report chapters also cover various topics including:** 1. WASH and health 2. Climate resilience 3. National targets 4. Leaving no-one behind and local participation 5. Gender 6. Regulation, risk management and surveillance
Indicators	>100 indicators with disaggregation by sub-sector.
Data generated	124 countries in 2022. Reporting every 2 to 3 years since 2008.
Data collection methodologies	Survey sent by WHO to countries and filled in by national authorities responsible for WASH with support from sector partners. In addition, information is gathered from the OECD creditor reporting system (CRS) database to give a comprehensive picture of external aid for WASH, by agency and by WASH area (providing grants and loans by WASH area - water supply, sanitation and programs - by country and region, and by donor).
Presentation	Global report (maps, tables and graphs), country highlights and the GLAAS data portal.
Responses / decision making support	Follow-up meetings in country.
Lessons for tool roll out	GLAAS collects data for regional and global monitoring, but is also beneficial to countries. Governments have developed ownership over GLAAS because it collects data directly from them and governments are able to use the GLAAS process and data in their decision-making and planning.

Relevant indicators	Relevant indicators include: • Is sanitation recognized as a human right, in the constitution or in law, and when? • What are the national standards or guidelines for sanitation (by part of the sanitation chain)? • Are sanitation safety plans (SSP) in place for local level risk assessment and management? • Are the WHO Guidelines on Sanitation and Health (2018) used for national planning? • Does a national policy and implementation plan/strategy exist for sanitation? • Sanitation coverage targets (by part of the sanitation chain) and hand hygiene. • To what extent are there measures to improve and extend services to various settings or situations in national WASH policies and plans? • Institutional roles and coordination. • Are there clearly defined procedures in laws or policies for participation by service users (e.g. households) and communities and what is the level of participation? • WASH Joint Sector Reviews, monitoring mechanisms, tracking equity, specific indicators and use in decision making. • Regulatory authorities - types, functions and independent surveillance. • Human resources plans/strategies, needs assessments, training institutions, constraints and sufficiency. • Financing plan, budgets, cost recovery, equity, affordability, utilisation of funds, external financing, sufficiency of financing and financial flow.
Other	Survey of external support agencies (ESAs)/development partners covers policies, strategies, priorities, funding, targets, achievements and constraints by WASH area, and requests information on how each development partner addresses specific global priorities such as gender and climate resilience.
Citations/ sources	UN-Water GLAAS website Link. World Health Organization and UN-Water (2022). Strong systems and sound investments: evidence on and key insights into accelerating progress on sanitation, drinking-water and hygiene. The UN-Water Global Analysis and Assessment of Sanitation and Drinking-Water (GLAAS) 2022 report. Link.

Investment cases from *Sanitation and Hygiene Fund (SHF)*

Structure	1. Demand 2. Supply 3. Enabling environment
Indicators	16 indicators
Data generated	4 countries in 2023
Data collection methodologies	Collected by consultants through secondary data sources and key informants. Indicators scored 'low', 'low-moderate', 'moderate' and 'high'.
Presentation	Tabular, found in the annexes of the investment case report.
Responses / decision making support	Interpretation provided for results
Lessons for tool roll out	The report fed into SHF's decisions about which program activities to support and it informed governments own planning.
Relevant indicators	**Indicators include:** • Rural basic sanitation access • Urban basic sanitation access • Growth of basic sanitation access • Government expenditure per capita on sanitation and hygiene • Gross national income per capita • Available manufacturers and importers of toilet hardware • Product and service price • Available public utility companies with sanitation mandate • Share of population with a sewerage connection • Sector coordination • Data monitoring, evaluation, and learning • Demand activation • Clear tariff-setting mechanisms • Public delegation framework to support PPP arrangements • WASH loan facility • Financing WASH infrastructure via municipal or utility bonds
Citations/ sources	Sanitation and Hygiene Fund (2022). Sanitation Economy and Menstrual Hygiene Marketplace Assessment. UNOPS, Geneva, Switzerland. Reports for Benin, Kenya, Nigeria, Sierra Leone and Uganda. Sanitation and Hygiene Fund (2023). From Human Waste to Prosperity: The Sanitation Economy. Geneva: UNOPS. Link.

Investment climate from *International Water Management Institute (IWMI)*

Structure	**Indicators**: • Regulatory framework • Business climate • Governance • Access to finance • Entrepreneur ecosystems
Indicators	The framework focuses on the circular bioeconomy sector. A recent study involves three main indicators – (i) macroeconomic environment; (ii) medium and small-scale sector; (iii) green economy/RRR segment-based. These are subdivided into neoclassical, behavioural, and institutional sub-indicators.
Data generated	The initial work (with 5 indicators) was done in 15 countries, and it has been done based on data 2019-2020 for these countries. The second study, with three indicators adopted a normative approach using min-max normalization to derive an aggregate index for determining investment readiness. It was extended to 38 countries. Panel data has been used 2015-22 for these countries based on availability and estimates (in cases data are unavailable).
Data collection methodologies	Secondary data sources, including World Bank for macroeconomic indicators, Ease of Doing Business, and good governance; UNEP for environmental indicators; World Economic Forum for small and medium industries, and ADB for various indicators.
Presentation	Descriptive statistics – table, bar charts, histograms, pie diagrams, maps (with figures for countries and regions). Index development in the extended case study.
Responses / decision-making support	The index-based approach, being a normative framework, helps identify countries for investment focus at regional level, and countries for capacity building in areas they lack.
Lessons for tool rollout	As a birds-eye view, such indexation is helpful but requires primary data source development for each country in a standard template and maintenance of database in a portal. The database can be further shared with the practitioners, policymakers, researchers and academia through a dashboard representing national and sub-national progress and changes.
Relevant indicators	• Regulatory framework: institutional arrangements and organizations. • Business climate and associated procedures: competitiveness of the economy and ease of doing business. • Governance climate: provision of infrastructure, incentives for promoting businesses, corruption and dissatisfaction about governance. • Access to finance: sources of capital, financial strengths, lending rates and inclusiveness in finances. • Entrepreneur ecosystems: existing and potential markets, business networks for promoting transition to the circular bioeconomy.

Citations/ sources	Taron A, Supriya B, Rajeev M, Gebrezgabher S (2024). Investment Supporting Environment for Resource Recovery and Reuse Sector: An Index-Based Cross-Country Analysis (to be published). Colombo, Sri Lanka: International Water Management Institute. Taron A, Sathiskumar A, Malviya T, Bodach S, Muthuswamy S, Gebrezgabher S (2024). Assessing the investment climate to promote a circular bioeconomy: a comparison of 15 countries in the Global South. Resource Recovery and Reuse Series 24. 89 pages. Colombo, Sri Lanka: International Water Management Institute. Link. Gebrezgabher S, Taron A, Amewu S (2019). Investment climate indicators for waste reuse enterprises in developing countries: Application of analytical hierarchy process and goal programming model. Resources, Conservation and Recycling 144: 223-232. Link. Ulrich A, Taron A, Jayathilake N (2019). Assessment of the FSM value-chain in Sri Lanka. Study conducted for the World Bank. Colombo, Sri Lanka: International Water Management Institute. Link.

Market-Based Sanitation Indicators from *WASHPaLS #2 (USAID)*

Structure	**MBS categories** 1. Breadth: presence and range of market actors, resources, and mechanisms 2. Depth: role of markets in progress towards universal sanitation coverage 3. Viability of enterprises determining the robustness of supply 4. Enabling factors that support an increase in market depth and breadth (e.g., Business Environment). **Business Environment includes:** 1. Market Rules 2. Governance 3. Public goods 4. Capital 5. Associated supply chains
Indicators	WASHPaLS #2: 1 indicator for each of the first 3 MBS categories and 18 indicators for the 4th category
Data generated	Indicator #1-#4: None Indicator #5: 14 countries represented by 43 MBS practitioners responding to a WASHPaLS #2 survey conducted in October – November 2023

Data collection methodologies	Indicator #1, Number of improved toilets purchased from the private sector: Sales data from MBS programs' partner enterprises and/or periodic surveys of sanitation enterprises and households Indicator #2, Price of improved toilet relative to monthly expenditure of bottom 40 percent households by wealth: Periodic reporting by MBS programs' field staff based on prices from sanitation enterprises Indicator #3, Percentage of population with geographical access to a sanitation enterprise: GPS coordinates of active sanitation enterprises recorded in a dedicated or a wider survey Indicator #4, Profit of sanitation enterprises: Periodic surveys of sanitation enterprises focused on their sales and costs Indicator #5: A scorecard converted into an online survey, which was distributed by senior WASH staff at INGOs to country-level staff
Presentation	Indicators #1, #2, #4, #5 – Tabulation Indicator #3: Visualization
Responses / decision making support	All indicators: None to date.
Lessons for tool roll out	Indicator #5: Pending

Relevant indicators	• Number of improved toilets purchased from the private sector (depth) • Price of improved toilet relative to monthly expenditure of bottom 40 percent households by wealth (breadth) • Percentage of population with geographical access to a sanitation enterprise (breadth) • Profit of sanitation enterprises (viability) • Strength of the business environment (business environment) On the business environment, a scorecard is proposed that includes 18 indicators (relevant ones below): **Market Rules** • Can households utilize government subsidies to obtain toilets or materials to construct toilets from private sector suppliers? • To what extent does rural MBS feature in national sanitation policies or guidelines as an approach to promote the use of durable, improved toilets? • Are regulations present that require rural homeowners to have at least basic sanitation facilities (i.e., meets WHO/UNICEF JMP definition for basic sanitation for households)? • Are policy instruments or institutions present that encourage entrepreneurs to start or operate sanitation businesses? **Public goods** • Is recent market research and data available in the public domain? • Are toilet design manuals or training available to NGOs and sanitation businesses? • Are sales and marketing tools available in the public domain? • Are proven rural delivery model designs available in the public domain? • Are sanitation loan product designs available to financial institutions, savings groups, or sanitation enterprises? • Are methods (i.e., tools, systems, or protocols) to identify and reach poor households for delivering sanitation subsidies available? **Associated supply chains** • In how many intervention districts or counties can rural households 'easily' get masons or artisans in their village or from nearby villages to construct durable, improved toilets on-site OR install/assemble pre-cast toilet components purchased from a sanitation business?
Citations/ sources	WASHPaLS #2 (2025) Supplemental Market-based Sanitation Indicators (unpublished).

Market-Based Sanitation from *UNICEF*

Structure	**Three objectives:** 1. Household demand 2. Business and supply chain 3. Business environment
Indicators	35 indicators
Data generated	Not known.
Data collection methodologies	Collected by consultants in country.
Presentation	Not known.
Responses / decision making support	Not known.
Lessons for tool roll out	All lessons from preliminary implementation of the MBS monitoring guidance were incorporated into the latest version of the guidance updated in 2021
Relevant indicators	**Household** • How are MBS interventions increasing household awareness, intention and motivation to invest in sanitation improvements? • How effective and sustainable are demand-creation and promotional activities? • How are financial barriers to investment being addressed through the market and/ or complimentary financing mechanisms? **Business and supply chain** • How well do products and services meet the needs of low-income consumers? • Are focal point and networked businesses increasing availability of products and services to low-income households? • How financially sustainable and viable are sanitation business activities? What is the likelihood that activities will continue over time? • What are the characteristics of high-performing businesses? What incentives are there for businesses to enter and expand sanitation service provision? **Business environment** • Are national and sub-national governments increasing capacity to monitor, facilitate and regulate new markets? • How do government and other partners support businesses to expand services to low-income households? • Is external technical support to government and the private sector demand-driven? Is there an exit strategy?
Citations/ sources	UNICEF (2020). Guidance on Market-Based Sanitation. Link. Pedi D, Jenkins M (2016). Enabling Environment – What roles and functions are needed in the new market? UNICEF Sanitation Marketing Learning Series, Guidance Note 6. Link.

Market-Based Sanitation Favourability Score from *International Development Enterprises (iDE)*

Structure	**Criteria** • Province and district broader context • Local government enabling environment • Town-level • Household-level • Technology solutions • Supply chain and financing
Indicators	27
Data generated	3 small towns in Northern Mozambique
Data collection methodologies	Primary field visit (key informant interviews during the visits), complemented with desk research.
Presentation	Data collected and documented in digital tables, analyzed for scoring accordingly. Final scores were included as part of Market Based Sanitation (MBS) implementation roadmap document as the method to assess locations' readiness to implement MBS.
Responses / decision making support	This tool helps identify MBS appropriateness to address sanitation needs in the locations under consideration. It also identifies strengths and weaknesses in those regions for MBS implementation.
Lessons for tool roll out	Still at an early stage of development and will undergo consultation with WASH actors.
Relevant indicators	**Province and district broader context** • Political and economic stability • Economic growth, rising incomes • Increasing media, information exposure **Local government enabling environment** • Policies and regulations that encourage or mandate household investment in individual household toilets • Flexible policies on designs of improved toilets • Local government leaders giving priority to basic sanitation and open to market-based approach • Institutions or programs that support local enterprise development (e.g. technical support, small business support, reasonable taxation, etc.)

Relevant indicators	**Town-level** • Easily accessible by road year-round • Close to larger cities and economic centers • Larger, denser communities • Evidence of 'positive deviance' (e.g. self-financed 'early adopters' of improved toilets) • No recent history of free or subsidized hardware, except in cases of extreme poverty • The majority of households do not practice open defecation • Large proportion of mid- to upper-income quintile households without basic sanitation (i.e. large potential new customer market) **Household-level** • Houses with modern construction materials (e.g. cement, bricks, iron sheet) • Presence of consumer durables (e.g. furniture, TV, battery, motorcycles) • Access to water supply • Stable sources of cash income (e.g. wage labour, surplus crops, remittances, trading) • Positive experience with formal or informal savings and credit mechanisms • Stable residence and secure land tenure **Technology solutions** • On-site sanitation systems are feasible public health solution • Hydro-geologic and soil conditions do not require excessively expensive or complex technologies • Low-cost product options already exist in the town and/or nearby districts and towns with similar cultural practices and preferences **Supply chain and financing** • Sufficient number of distributors and retailers of construction materials and toilet components operating in the town (even if not well-networked) • Commercial transport options exist • Masonry/concrete casting skills exist • Adequate formal or informal financial services for small enterprises
Citations/ sources	Based on UNICEF's Guidance on Market-Based Sanitation. Link.

Market Driven Approach for Faecal Sludge Products from *Swiss Federal Institute of Aquatic Science and Technology (Eawag)*

Structure	1. Target market analysis. 2. Market stakeholder analysis. 3. Market sizing. Size is influenced by many factors, such as investment cost, distribution cost, geographical factors/constraints, price sensitivity, social stigma, efficacy and costs of faecal sludge products with respect to substitutes. 4. Market attractiveness. Market attractiveness can be represented by plotting the market size (y-axis) against the market growth (x-axis).
Indicators	4 indicators.
Data generated	Kampala, Uganda (2014), Son La, Vietnam (2015), Bac Ninh, Vietnam (2015), Ba Ria, Vietnam (2015), Bignona, Senegal (2015).
Data collection methodologies	Secondary data and key informants.
Presentation	Market attractiveness can be represented by plotting the market size (y-axis) against the market growth (x-axis).
Responses / decision making support	The tool helps to decide which faecal sludge treatment product is most suitable in a certain context from an economic/market perspective.
Lessons for tool roll out	The MDA methodology is most applicable in middle and larger-sized urban and peri-urban areas, because information is often more readily available there, with better access to sources of official information. Where time or resources are limited, focusing on a select number of locally relevant treatment products will reduce the required time investment. The MDA methodology provides an economic/market-perspective, which is of course only one component in decision making. It needs to be incorporated into a comprehensive planning approach to come to a final decision.
Relevant indicators	Market size is influenced by many factors, such as investment cost, distribution cost, geographical factors/constraints, price sensitivity, social stigma, efficacy and costs of faecal sludge products with respect to substitutes.
Citations/ sources	EAWAG (2016). Market Driven Approach for Selection of Faecal Sludge Treatment Products. Schoebitz et al. The Swiss Federal Institute of Aquatic Science and Technology (Eawag). Link.

Market System Resilience Index from *International Development Enterprises (iDE)*

Structure	1. Structure of the market 2. Connectivity of the market 3. Support of the market 4. Environment 5. Financial viability of market actors
Indicators	39 indicators
Data generated	Bangladesh (2020, 2021, 2022), Mozambique (2022, 2021, 2022, 2023), Nepal (2021, 2022, 2023), Ghana (2022), Ethiopia (2022), Zambia (2022), Cambodia (2022; 2024), Honduras (2024), Vietnam (2024)
Data collection methodologies	iDE numerators conduct a survey of households and relevant market actors, asking about 100 questions, which probe the strength of the determinants within a geographically defined market. Answers are scored on a one through five rubric, depending on a determinant's detected strength, with five being the highest.
Presentation	Data is cleaned and analyzed in R, put into a Google Sheets template and then turned into charts which are used to inform presentations and reports.
Responses / decision making support	The index enables the measurement of the strength of relationships among participants within a market system, helping partners adapt approaches and direct efforts to building relationships where necessary.
Lessons for tool roll out	Too long and uneven weighting amongst determinants. Tool was updated in 2024 to address these issues.
Relevant indicators	Structure of the market • Redundancy (4 indicators) • Diversity (4 indicators) • Functionality (5 indicators) Connectivity of the market • Inclusion (4 indicators) • Integration (3 indicators) • Collaboration (1 indicators) Support of the market • Feedback loops (1 indicators) • Enabling environment (4 indicators) • Preparedness (7 indicators) Environment: physical environment of market area (2 indicators) Financial viability of market actors (4 indicators)

Citations/ sources	iDE (2020). Measuring Market Resilience to Shocks and Stressors. Link. iDE (2023). Sanitation MSRI: Conceptual Framework, Tools Summary & Scoring Rubric. Internal version - October 24, 2023. iDE's Market Systems Resilience Index: Assessing Market Systems in Mozambique. Evaluation Report. Link. MSRI Overview. Link. MSRI Principles & Determinants. Link.

Policy, Institutions & Regulations (PiR) from the World Bank

Structure	1. Policy 2. Institutions 3. Intergovernmental context 4. Regulations 5. Finance 6. Climate resilience
Indicators	None.
Data generated	10 countries
Data collection methodologies	Assessment by World Bank staff
Presentation	Not known.
Responses / decision making support	Not known.
Lessons for tool roll out	Not known.
Relevant indicators	None
Citations/ sources	World Bank. 2022. Water Supply and Sanitation Policies, Institutions, and Regulation: Adapting to a Changing World—Synthesis Report. World Bank, Washington, DC. Link. Mumssen Y, Saltiel G, Kingdom B (2018). Aligning Institutions and Incentives for Sustainable Water Supply and Sanitation Services. Report of the Water Supply and Sanitation Global Solutions Group, Water Global Practice. Washington, D.C.: World Bank. May 2018. Link.

Principles on Water Governance from *OECD*

Structure	**Principles:** 1. Clearly allocate and distinguish **roles and responsibilities** for water policymaking, policy implementation, operational management and regulation, and foster co-ordination across these responsible authorities. 2. Manage water at the appropriate scale(s) within integrated basin governance systems to reflect local conditions, and foster co-ordination between the different scales. 3. Encourage **policy coherence** through effective cross-sectoral co-ordination, especially between policies for water and the environment, health, energy, agriculture, industry, spatial planning and land use. 4. Adapt the level of **capacity of responsible authorities** to the complexity of water challenges to be met, and to the set of competencies required to carry out their duties. 5. Produce, update, and **share timely, consistent, comparable and policy-relevant water** and water-related data and information, and use it to guide, assess and improve water policy. 6. Ensure that governance arrangements help **mobilize water finance** and allocate financial resources in an efficient, transparent and timely manner. 7. Ensure that sound water management **regulatory** frameworks are effectively implemented and enforced in pursuit of the public interest. 8. Promote the adoption and implementation of **innovative water governance** practices across responsible authorities, levels of government and relevant stakeholders. 9. Mainstream i**ntegrity and transparency practices** across water policies, water institutions and water governance frameworks for greater accountability and trust in decision-making 10. Promote **stakeholder engagement** for informed and outcome-oriented contributions to water policy design and implementation. 11. Encourage water governance frameworks that help manage trade-offs across water users, rural and urban areas, and generations. 12. Promote regular **monitoring and evaluation** of water policy and governance where appropriate, share the results with the public and make adjustments when needed.
Indicators	The OECD Water Governance Indicator Framework is composed of a traffic light system of 36 water governance indicators (input and process), a checklist containing 106 questions on water governance, and an action plan for improvement in the short, medium and long run.
Data generated	**OECD national and local policy reviews:** the Principles were used in Brazil (2017 and 2022), in Korea (2018), in Argentina (2019), in Peru (2021) and South Africa (2021). **OECD benchmarking studies:** The report Water Governance in Asia-Pacific (2021) provided a regional analysis of the state of play of water governance in 48 countries of the Asia-Pacific region. The report Water Governance in African Cities (2021) assessed water governance dimensions across 36 African cities across 20 countries.

Data collection methodologies	Desk research, targeted surveys and policy dialogues.
Presentation	Reports, brochure, handbook and guidance.
Responses / decision making support	The Principles have been used in several policy dialogues and studies as a guiding framework for assessment and policy recommendations. The Principles have also been used as part of benchmarking studies by using targeted surveys to build new evidence and data from a comparative perspective at national and subnational levels. For instance, in Cape Town, South Africa, it helped to advance the water allocation reform to better manage trade-offs across multiple users.
Lessons for tool roll out	To support the implementation of the Principles on Water Governance, the OECD Water Governance Initiative has developed a series of implementation strategy materials to measure progress, evaluate and learn from others, such as: the OECD Water Governance Indicator Framework (provided 54 water governance practices that document the implementation of the Principles), the OECD Guide on How To Assess Water Governance (provided 7 country examples implementing the ten-step methodology for a multi-stakeholder assessment of water governance) and the Handbook of What Works: Solutions for the local implementation of the Water Governance Principles (provided 52 evolving water governance practices with common pitfalls to be avoided when designing and implementing water policies and lessons from both successful and challenging implementations of each Principle).
Relevant indicators (the 'what', 'who' and 'how' of each Principle)	**Principle 1. Clear roles and responsibilities** • Existence and level of implementation of a water law • Existence and functioning of ministry, line ministry, central agency with core water-related responsibilities for policymaking • Existence and implementation of mechanisms to review roles and responsibilities, to diagnose gaps and adjust when need be **Principle 2. Appropriate scale** • Existence and level of implementation of integrated water resources management policies and strategies • Existence and functioning of institutions managing water at the hydrographic scale • Existence and level of implementation of co-operation mechanisms for the management of water resources across water-related users and levels of government from local to basin, regional, national and upper scales

Relevant indicators (the 'what', 'who' and 'how' of each Principle)	**Principle 3. Policy coherence** • Existence and level of implementation of cross-sectoral policies and strategies promoting policy coherence between water and key related areas, in particular environment, health, energy, agriculture, land use and spatial planning • Existence and functioning of an inter-ministerial body or institutions for horizontal co-ordination across water-related policies • Existence and level of implementation of mechanisms to review barriers to policy coherence and/or areas where water and related practices, policies or regulations are misaligned **Principle 4. Capacity** • Existence and level of implementation of hiring policies, based on a merit-based and transparent professional and recruitment process of water professionals independent from political cycles • Existence and functioning of mechanisms to identify and address capacity gaps in water institutions • Existence and level of implementation of educational and training programs for water professional **Principle 5. Data and information** • Existence and functioning of updated, timely shared, consistent and comparable water information systems • Existence and functioning of public institutions, organisations and agencies in charge of producing, co-ordinating and disclosing standardized, harmonized and official water-related statistics • Existence and level of implementation of mechanisms to identify and review data gaps, overlaps and unnecessary overload **Principle 6. Financing** • Existence and level of implementation of governance arrangements that help water institutions collect the necessary revenues to meet their mandates and drive water-sustainable and efficient behaviours • Existence and functioning of dedicated institutions in charge of collecting water revenues and allocating them at the appropriate scale • Existence and level of implementation of mechanisms to assess short-, medium-, and long-term investment and operational needs and ensure the availability and sustainability of such finance

Relevant indicators (the 'what', 'who' and 'how' of each Principle)	**Principle 7. Regulatory frameworks** • Existence and level of implementation of a sound water management regulatory framework to foster enforcement and compliance, achieve regulatory objectives in a cost-effective way, and protect the public interest • Existence and functioning of dedicated public institutions responsible for ensuring key regulatory functions for water services and resources management • Existence and level of implementation of regulatory tools to foster the quality of regulatory processes for water management at all levels **Principle 8. Innovative governance** • Existence and level of implementation of policy frameworks and incentives fostering innovation in water management practices and processes • Existence and functioning of institutions encouraging bottom-up initiatives, dialogue and social learning as well as experimentation in water management at different levels • Existence and level of implementation of knowledge-and experience-sharing mechanisms to bridge the divide between science, policy and practice **Principle 9. Integrity and transparency** • Existence and level of implementation of legal and institutional frameworks (not necessarily water-specific) on integrity and transparency which also apply to water management at large • Existence and functioning of independent courts (not necessarily water-specific) and supreme audit institutions that can investigate water-related infringements and safeguard the public interest • Existence and level of implementation of mechanisms(not necessarily water-specific) to identify potential drivers of corruption and risks in all water-related institutions at different levels, as well as other water integrity and transparency gaps **Principle 10. Stakeholder engagement** • Existence and level of implementation of legal frameworks to engage stakeholders in the design and implementation of water-related decisions, policies and projects • Existence and functioning of organisational structures and responsible authorities to engage stakeholders in water-related policies and decisions • Existence and level of implementation of mechanisms to diagnose and review stakeholder engagement challenges, processes and outcomes

Relevant indicators (the 'what', 'who' and 'how' of each Principle)	**Principle 11. Trade-offs across users, rural and urban actors, and generations** • Existence and level of implementation of formal provisions or legal frameworks fostering equity across water users, rural and urban areas, and generations • Existence and functioning of an Ombudsman or institution(s) to protect water users, including vulnerable groups • Existence and implementation of mechanisms or platforms to manage trade-offs across users, territories and/or over time in a non-discriminatory, transparent and evidence-based manner **Principle 12. Monitoring and evaluation** • Existence and level of implementation of policy frameworks promoting regular monitoring and evaluation of water policy and governance • Existence and functioning of institutions in charge of monitoring and evaluation of water policies and practices and help adjust where need be • Existence and level of implementation of monitoring and evaluation mechanisms to measure to what extent water policy fulfils the intended outcomes and water governance frameworks are fit-for-purpose
Citations/ sources	OECD (2015). Principles on Water Governance. Link. OECD (2018). Implementing the OECD Principles on Water Governance. Indicator Framework and Evolving Practices. Link. OECD (2018). The OECD Water Governance Indicator Framework, including Concrete Stories. Link. OECD (2021). Water Governance in Asia-Pacific. Link. OECD (2021). Water Governance in African Cities. Link. OECD (2022). Guide on How To Assess Water Governance. Link. OECD (2024). Handbook of What Works: Solutions for the local implementation of the Water Governance Principles. Link.

Regulation Strategy and Framework For Inclusive Urban Sanitation from *Eastern and Southern Africa Water and Sanitation Regulators Association (ESAWAS)*

Structure	**Results presented for:** • Sanitation definitions • Sanitation policies • Sanitation legal framework • Roles and responsibilities of key institutions • Roles and responsibilities along the sanitation chain • Review of regulatory instruments • Review of sanitation technologies
Indicators	32 indicators.
Data generated	8 countries or territories in Eastern and Southern Africa.
Data collection methodologies	Secondary sources and key informants.

Presentation	In report format.
Responses / decision making support	Recommendations are made in the report.
Lessons for roll out	The assessments underline the importance of implementing strong regulatory frameworks and systems and the need to establish inter-ministerial sector coordination mechanisms and goals. Private sector engagement needs to be promoted within a public sector approach. Evidence-based decision making is key.
Relevant indicators	• Is there a dedicated policy for sanitation which includes details of onsite sanitation and faecal sludge management? • Does the sanitation policy include the possibility of application of synergies between faecal sludge management, solid waste and storm water management? • Were all key sanitation stakeholders during the preparation of the sanitation policy? • Are statements of inclusiveness and equity included in sanitation high level documents such as policies and strategies, or the constitution? • Is the policy translated into a law or Act? Is NSS or FSM explicitly mentioned? • Is the policy updated periodically (at least every 10 years) to respond to the prevailing/changing environment? • Has city wide sanitation planning been undertaken, which includes sanitation technology mapping (shit flow diagram) • Are there clear responsibilities for different agencies? • Have Acts/Laws been amended to include regulation of faecal sludge management as one of the activities of a water and sanitation/sewerage regulator? • Is regulation provided by an autonomous agency or a private sector that have the autonomy and expertise required to improve sector performance? Is regulator independent of the local government authority? • Have up-to-date regulatory instruments been provided?
Citations/ sources	ESAWAS (2019). Regulation Strategy And Framework For Inclusive Urban Sanitation Service Provision Incorporating Non Sewered Sanitation Services. Link. ESAWAS (2020). Guidelines for Inclusive Sanitation Service Provision. Link. ESAWAS (2024). Citywide inclusive sanitation (CWIS) regulatory journeys in six countries of Eastern and Southern Africa. Link. The Africa WSS Regulators Conference. Link.

Scaling Up Rural Sanitation Programme from *World Bank (Water and Sanitation Program)*

Structure	**Pillars:** 1. Policy, strategy, and direction 2. Institutional arrangements 3. Program methodology 4. Implementation capacity 5. Availability of products and services 6. Financing and incentives 7. Cost-effective implementation 8. Monitoring and evaluation
Indicators	45 indicators.
Data generated	13 countries (until 2015).
Data collection methodologies	Collected by program staff from secondary data sources and internal assessments.
Presentation	Tables and graphs.
Responses / decision making support	Results fed into global and national decision making of program staff.
Lessons for tool roll out	The methodology was mainly for internal purposes. The indicators were later used to attribute the Water and Sanitation Program's (WSP's) role in shifting the enabling environment and thereby a share of the increase in population with sanitation access.

Relevant indicators	1. **Policy, strategy, and direction** • Advocacy plan to gain policy support from stakeholders • Shared vision among all stakeholders • Strategic plan/policies to implement shared vision • Institutional incentives for CLTS plus Sanitation marketing approach • Legislative framework for sanitation • Political will to scale up sanitation 2. **Institutional arrangements** • National lead institution/ministry identified established for rural sanitation roles and responsibilities are clear • Established coordination mechanism • Dedicated budget line in place • Clear links established with other sectors • Clear operational structure 3. **Program methodology** • Program Methodology framework established • Methodology adopted to national context • Methodology implemented • Methodology adopted by local government • Methodology adopted by national government
Relevant indicators	4. **Implementation capacity** • Capacity and Incentive plan developed • Sufficient capacity at national level • Sufficient capacity at district level • Sufficient capacity at community level • Sufficient capacity among development partners and NGOs • Private sector mobilized 5. **Availability of products and services** • Goods and services are available but don't respond to consumer preferences • Goods respond to consumer preferences service-delivery responds to consumer preference • Supply chain barriers and drivers for key goods and services have been identified and addressed • Goods and services available and affordable for all economic categories of consumer • Goods and services made available with appropriate marketing and quality assurance controls • Sanitation and hygiene programs have stimulated innovations and services

Relevant indicators	6. **Financing and incentives** • Funding plan developed • Adequate funding available to support scaling up rural sanitation and hygiene • Funding available for the national government • Funding available for local government • Funding source being utilized effectively for scaling up rural sanitation and hygiene • Budgeting and funding for expansion and sustainability of scaling up rural sanitation and hygiene 7. **Cost-effective implementation** • Awareness of cost-effective implementation taking place, interest in collecting cost data • Cost-effective assessment methodology/system in place • Cost-effective assessment methodology capacity in place • Cost data being collected analyzed and utilized • Monitoring and evaluation • Plans to develop a monitoring and evaluation • Leadership (institution) for M&E identified • M&E system developed • National M&E capacity in place • District M&E capacity in place • M&E results being used to inform and improve program implementation
Citations/ sources	Perez E, Cardosi J, Coombes Y, Devine J, Grossman A, Kullmann et al (2012). What Does It Take to Scale Up Rural Sanitation? Washington, D.C.: World Bank, Water and Sanitation Program. Link. Rosensweig F, Perez E, Robinson A (2012). Policy and Sector Reform to Accelerate Access to Improved Rural Sanitation. Washington, D.C.: World Bank, Water and Sanitation Program. Link.

Scorecard to assess the enabling environment for investment in water security from *OECD*

Structure	**Dimensions:** 1. The overall policy framework for investment 2. The water policy framework for investment 3. The bankability and sustainability of projects 4. An economy-wide water lens: The contribution of other economic sectors to water security
Indicators	29 questions.
Data generated	The scorecard was pilot-tested in seven Asian countries, including Bangladesh, Mongolia, Nepal, Pakistan, the Philippines, Uzbekistan, and Sri Lanka. Following an Eastern European pilot test, findings from Armenia were later included into the results of the pilot test.

Data collection methodologies	Data sources vary across the four dimensions. The tool uses publicly existing databases, and an online survey to be filled in by the government, or country experts appointed where necessary. The databases used are from accredited organisations (OECD, World Bank, IMF, UN). D1 predominantly uses automated data sources, with the World Bank being the primary source of data, evaluating a country's overall investment climate. D2 uses a mix of technical information, as well as the World Bank's IBNET and the UN Water Global Analysis and Assessment of Sanitation and Drinking-water (GLAAS) databases. D3 and D4 broadly rely on inputs from governments or experts. D3 also relies partially on external databases. Where information is required from governments or consultants, an online survey is provided. For each indicator of D1, data is collected from publicly available databases from the following internationally accredited organisations: The World Bank, the International Monetary Fund, the World Economic Forum, the OECD, the World Justice Project, and Transparency International. Each question is scored from 0-5 (less than 0-1 = nascent; 1 – 2 = engaged; 2 – 3 = capable; 3 – 4 = effective 4 – 5 = model) automatically, based on the results.
Presentation	The report attempts to visualize and outline the rationale of the scorecard and highlight the main components. A range of graphs, radar plots, and annex tables are generated from the outputs of the data in order to depict the data.
Responses / decision making support	The purpose of the scorecard is to inform further policy discussions related to creating a more enabling environment for investment in water security. The scorecard does not necessarily provide decision making support, unless specifically requested. However, the scorecard does provide actionable steps decision makers can undertake, reducing any remaining barriers to investment and mobilising additional investment. The scorecard helps governments anticipate risks in investment, and also lets governments prioritize certain areas of the water sector.
Lessons for tool roll out	The scorecard is a tool which is intended to form part of a policy dialogue, designed to support the government or organisation in supporting policy reforms to attract, build and maintain investment in the water ecosystem. This tool can then support the development of the necessary enabling conditions for investment in the water sector, by providing the basis for further policy discussions.

Relevant indicator	**Dimension 1: A sound investment environment: is the country attractive for investors?** Dimension 1 quantifies how attractive a country is for investors, looking at ten indicators. • What is the strength of the domestic finance sector? • Are macro-economic indicators conducive to a sound investment? • Is domestic finance available? • How strong are public governance mechanisms? • How strong are corporate governance mechanisms? • What level of regulatory permits and approvals are required and are they streamlined? • What accountability mechanisms are in place to ensure responsible business conduct? • What is the level of non-commercial risks for investors? • How effective and practical decentralisation is for policy and investment? • Are infrastructures sufficient to attract investment? **Dimension 2: Channelling investment to water** Dimension 2 evaluates the attractiveness of water policy frameworks for investment, analysing differences between drinking water policy and water resource management. • Is a strategic investment plan in place, including water security? • Is there independent and transparent regulation of the water supply sector? • Are contracts arrangements for service providers attractive for investment? • Do incentives support private investment? • Does economic regulation sustain and attract investment? • Is the legal status of stakeholders participating in the investment clear? • Are water service providers allowed and able to access finance? • What are service authorities capacity levels? • What are service providers' capacity levels? • Is data on current and future resources availability, demand and supply and water risks available? • Do water resource allocation mechanisms support water security investment? • Are economic instruments coherent between sectors? • Are mechanisms to solve conflicts between water users effective?

Relevant indicator	**Dimension 3: A pipeline of good projects: to what extent are water projects bankable and sustainable?** Dimension 3 focuses on the capacity of a country to develop water-related projects that are sustainable and bankable. • To what extent are the community, stakeholders, third parties, engaged in projects? • Is there a standard methodology for assessing the social and environmental value and impact of investment? • How are cost benefits methodology carried out to ensure impartiality? • Is data, process and methods for projects collected and published? How is the data used for future decisions-making? • Can projects be grouped to overcome high credit risks and transaction costs? • Are there guidelines on how to support projects to be bankable and financially viable? **Dimension 4: An economy-wide lens to ensure investment in other sectors contribute to water security.** Dimension 4 focuses on the impact of other economic sectors on water security • Does a national strategy guide water security in the country? • Do national strategies for climate change mitigation, adaptation, agriculture, economy, development and energy transition address water security? • Is a water risk mitigation strategy in place? • Are economic incentives designed to support water security? • Is water security embedded in public policy measures? • Do mandatory and voluntary disclosure standards consider water?
Citations/ sources	Sanchez Trancon, D., et al. (2024), "Assessing the enabling conditions for investment in water security: Scorecard pilot test in Asian countries", OECD Environment Working Papers, No. 235, OECD Publishing, Paris. Link. Sanchez Trancon, D. and G. Halpern (2024), "Assessing the enabling conditions for investment in Armenia's water security: Scorecard pilot test", OECD Environment Working Papers, No. 241, OECD Publishing, Paris. Link.

SDG 6 Global Acceleration Framework from *UN-Water*

Structure	**System areas ('accelerators'):** • Governance: Make SDG 6 everyone's business through cross-sector and transboundary collaboration, clear roles, stakeholder involvement, and effective and inclusive institutions. • Financing: Optimize financing for water and sanitation, particularly for countries and communities with limited access to financial resources. • Data and information: Build trust through data generation, validation, standardisation and information exchange for decision- making, incentivization and accountability. • Capacity development: Focus on inclusive human and institutional capacities at all levels to deliver SDG 6. • Innovation: Leverage and scale up innovative practices, financing mechanisms and technologies, including technologies that are accessible for rural areas and marginalized communities.
Indicators	No indicators.
Data generated	Data is compiled from other frameworks covered elsewhere in this document.
Data collection methodologies	Not applicable.
Presentation	No presentation apart from partners using accelerators in their own monitoring systems.
Responses / decision making support	See other frameworks.
Lessons for tool roll out	Having been adopted by many sector institutions, the five accelerators have led to more harmonized approaches to WASH sector diagnosis and planning, enabling better coordination and collaboration across multiple stakeholders at global, regional and national levels.
Relevant indicators	No indicators.
Citations/sources	UN-Water (2020). Sustainable Development Goal 6 Global Acceleration Framework. Geneva: UN-Water. Link.

Sector functionality framework from *Water and Sanitation for the Urban Poor (WSUP)*

Structure	**Assessment areas:** 1. Commitment 2. Policy/mandates 3. Financial flows 4. Investment planning 5. Capacity 6. Attitudes/behaviours 7. Sustainability
Indicators	21 indicators for each of water and sanitation.
Data generated	6 countries (baseline) and at least 3 countries (endline).
Data collection methodologies	Indicator scoring assessed and agreed in a workshop. Draft scores provided by an online questionnaire formed the starting point for a process of negotiated consensus, moderated by the workshop facilitators. Participants discussed each of the draft indicator scores in turn: when stakeholders agreed with an indicator's draft score, they displayed a green card; if attendees disagreed with a draft score, they held up red cards. Disputed scores were then discussed by the whole group and in break-out clusters until a consensus was reached. Where consensus could not be reached, the score was decided by a final vote.
Presentation	A traffic light system was used to score the criteria. Four levels of achievement – red, orange, yellow and green.
Responses / decision making support	Contributed to evidence-based planning and coordination amongst partners.
Lessons for tool roll out	Workshops involved a wide range of national and city-level partners, including ministries, regulators, finance institutions, local governments, utilities, civil society, and academic institutions. The process of convening these partners to openly discuss strengths and weaknesses of the sector was itself valuable in promoting stakeholder coordination. The scoring system in a workshop setting is concluded to be an efficient process — in particular, prior completion of questionnaires is recommended to manage the workshop time effectively and rapidly identify the most contested indicators.

Relevant indicators	**Commitment** • High-level political commitment • Government budget allocation • Civil society voice **Policy/mandates** • National policy • Institutional mandates • Private sector enablement **Financial flows** • Adequacy of financial flows • Budget utilisation • Tracking of financial flows **Investment planning** • National investment plan • City investment plans • IFI investment **Capacity** • Service provider capacity • Capacity of key national institutions • Regulatory effectiveness **Attitudes/behaviours** • Behaviour change communication • Consumer willingness to pay for sanitation • Gender inclusion **Sustainability** • On-site sanitation support • Sector monitoring systems • Climate resilience
Citations/ sources	WSUP (2018). An evaluative framework for urban WASH sector functionality. London: Water and Sanitation for the Urban Poor. Link.

Service Delivery Assessment from the *World Bank (Water and Sanitation Program)* and *AMCOW*

Structure	**Service delivery pathway:** 1. Enabling (policy, planning, budget) 2. Developing (expenditure, equity, output) 3. Sustaining (maintenance / markets, expansion / uptake, use)
Indicators	29 scorecard indicators applied per sub-sector (urban water, urban sanitation, rural water, rural sanitation) for each of the scorecard areas.
Data generated	46 countries (Africa in 2006 and 2012, Asia in 2015, LAC in 2015)
Countries	32 sub-Saharan African countries; 7 Asian countries: Cambodia, Indonesia, Laos, Papua New Guinea, Philippines, Timor-Leste, Vietnam; 7 LAC countries: Costa Rica, Dominican Republic, El Salvador, Guatemala, Honduras, Nicaragua, Panama.
Data collection methodologies	Staff and consultants collected the required information together with sector partners. Investment requirement was calculated based on unit costs of services and service coverage gap.
Presentation	Scorecard uses traffic light system, with maps and graphs in detailed country reports
Responses / decision making support	The SDAs informed national dialogue and World Bank's engagement with countries, and provided useful information for other stakeholders and partners.
Lessons for tool roll out	Lack of sustainability and expansion to other countries due to in-depth studies and lack of sustained funding
Relevant indicators	Traffic light scoring of the nine sub-pillars listed above
Citations/ sources	World Bank (Water and Sanitation Program). Turning Finance into Services for the Future. A Regional Synthesis of the Service Delivery Assessments (SDA) for Water Supply and Sanitation in East Asia and the Pacific. June 2015. Link. World Bank (Water and Sanitation Program). Monitoring Country Progress in Drinking Water and Sanitation (MAPAS). Regional synthesis: Central America and Dominican Republic. May 2015. Link. AMCOW, AfDB, World Bank, WSP (2008). Can Africa Afford to Miss the Sanitation MDG Target? A review of the sanitation and hygiene status in 32 countries. Link. AMCOW, AfDB, World Bank, WSP (2012). Pathways to Progress Transitioning to Country-Led Service Delivery Pathways to Meet Africa's Water Supply and Sanitation Targets. AMCOW Country Status Overviews - Regional Synthesis Report. Link.

Stargazer framework from *Population Services International (PSI)*

Structure	**Nodes or components of the market:** 1. Functioning supply chain 2. Workforce and training 3. Demand and prioritisation of sanitation 4. Financing loan capital for businesses and consumers 5. Inclusion 6. Climate resilient infrastructure 7. Good governance 8. Products and services 9. Coordination and collaboration 10. Data systems in use 11. Gender is cross cutting and should be considered in every aspect of the market.
Indicators	25 indicators. Indicators are a mix of process indicators and intermediate outcomes. Some can apply to assessing how advanced a geography is on each of the nodes, and others can be used to monitor progress of a project.
Data generated	10 countries, starting in 2013
Data collection methodologies	Baseline and annual surveys. Routine monitoring by project staff. Routine data reporting by local businesses.
Presentation	In DHIS II.
Responses / decision making support	Quarterly pause and reflect sessions to adapt programming.
Lessons for tool roll out	The Stargazer framework can be used as a convening tool to help actors understand the dimensions of a market and come to an agreement on the biggest challenges in their context. This is a starting point for developing a more detailed work plan for a project and/or a more comprehensive, collective impact planning process that includes government, private sector, development partners, and civil society.

Relevant indicators	**1. Supply chain** • Number of stock outs at wholesale and retail level **2. Adequate workforce** • Number of businesses offering improved services (gender disaggregated) • Number of local institutions offering training in technical and business skills for sanitation **3. Demand and prioritisation** • % of people who say owning an improved toilet is important or very important. • % of households willing to invest their own money in a toilet **4. Financing** • Number of customers/businesses accessing loans for sanitation • Number of financial institutions offering sanitation loans • Strategies and investments, including subsidies, for reaching the most vulnerable are in place. **5. Inclusion** • % of professional sanitation roles in government held by people with disabilities and women (disaggregated) • % of sanitation leadership roles in government held by people with disabilities and women (disaggregated) • Inclusion of civil society in investment and implementation planning **6. Climate resilient infrastructure** • Availability of products across the service chain that can withstand change in climate (rain, wind, rising water) • Availability of products across the service chain that have lower greenhouse gas emissions than traditional solutions **7. Good governance** • Policy: Existence of policies that support achievement of universal access to sanitation • Planning: Existence and annual updating of comprehensive, costed implementation plans to achieve policy objectives at national and local levels, including engagement of private sector actors • Roles and responsibilities: Clearly defined and understood roles and responsibilities for national and local level actors across ministries and departments • Regulation: Regulatory body routinely assesses and enforces regulations around sanitation. • Investment: Adequate resources and financing to fund implementation plans.

Relevant indicators	**8. Products and services** • Availability of affordable and desirable products and services that can serve all market segments • Number of steps or interactions with suppliers that it takes for a customer to get a toilet or cleaning service. **9. Coordination and collaboration** • Government is able to adequately direct funding from various sources towards achievement of their implementation plans. • Development partners contribute to development of government plans. • Development partners align implementation of activities with government plans. **10. Data systems in use** • Governments at national and local level have process for monitoring and evaluating progress against the costed plan • High quality sanitation data is routinely collected, cleaned, and entered into a national-level electronic reporting system.
Citations/ sources	PSI WASH leaders

WASH Bottleneck Analysis Tool from *UNICEF*

Structure	**Sector functions** 1. Sector policy & strategy 2. Coordination 3. Service delivery arrangements 4. Accountability & regulation 5. Budget & expenditure 6. Financing 7. Planning 8. Monitoring, evaluation and learning 9. Capacity development 10. Political leadership 11. Decentralisation 12. Social norms 13. Service providers
Indicators	>100 indicators (assessment criteria) applied across different sub-sectors and administrative levels.
Data generated	Over 60 countries since 2012 at national level, a majority of which also conducted sub-national analyses. The WASHBAT portal has ~2,500 registered users and has been implemented both at national and regional level (including one example at municipality level). In 2023, more than 12 WASHBAT workshops have been implemented, most of them including a risk-informed module to assess climate risks.

Data collection methodologies	Stakeholder consultation (workshop) where criteria are assessed and scores are agreed using the traffic light system. WASH BAT explicitly indicates the assessment criteria which is aligned with GLAAS questions, hence aiding the alignment of a WASH bottleneck analysis exercise with other sector analyses when it is conducted after or during the UN-Water GLAAS cycle.
Presentation	4 response categories (no progress, some progress, good progress and completed) using colour visuals (traffic light).
Responses / decision making support	Tool methodology is to systematically and collaboratively identify solutions to the identified bottlenecks, with a costed, prioritized and sequenced implementation plan.
Lessons from tool roll out	**Various recommendations were made in the review (UNICEF, 2020):** • For a WASH BAT to be successful, both a need and a demand for the process should be established before the start of the process. • Enough time needs to be set aside for the preparation process in order to make logistical arrangements, secure the right participants, and manage expectations for the workshop. • A core group should be engaged to take charge of the key preparatory stages in order to ensure government ownership and adaptation to the context. • Coordination between the key stakeholder groups is key during the preparation phase. • Training of the facilitators and rapporteurs is recommended for a more effective workshop. • The workshop can be improved by clarifying the key concepts, in the local language if appropriate, updating the online software with adapted functions or criteria, and making sure there is enough time to ensure the activities are specific, measurable and relevant. • Taking advantage of windows of opportunity and linking or integrating the WASH BAT to national processes give the greatest chance that the outputs will be followed up and implemented. • To ensure the Action Plan is followed up, an accountability mechanism should be set up for each subsector or sub-national level, with a dedicated stakeholder group responsible for the next steps in promoting the activities for implementation.

Relevant indicators	**Selected indicators:** • Vision from elimination of open defecation to safely managed sanitation aligning individual and collective action • Standards/benchmarking arrangements for sanitation service delivery in place • Presence of quality facilitators/motivators to create demand and address social norms • Functioning supply chain with skilled small-scale providers/ entrepreneurs available • Private sector is incentivized by government regulations, laws, institutions, financing and incentive systems • The process for selection and implementing service delivery models is clear, transparent and adapted to the context • Adequate conditions are in place for the application of service delivery models, including the policy and regulatory framework, available capacity support, financing arrangements and incentives • The models include provisions for targeting most vulnerable populations • The service models are widely known and implemented in practice • Government monitoring and verification systems for sanitation are in place at multiple levels • Reporting by different line ministries is consolidated • Sufficient resources and capacity exist to implement the regulations • Incentives exist for investment in environmentally sustainable and efficient technologies • There is a body that represents the needs of sanitation service customers in the budgeting processes • The funding for sensitization campaigns has been explicitly addressed in the budgeting process and is adequate. • Multi-year budget allocations are provided and long-term commitments are known • There is a clearly articulated procurement process • The financial needs for sanitation are known and the legal and institutional frameworks for resource mobilization are in place • The private sector is incentivized to invest in sanitation infrastructure and service delivery • Tariffs can be adjusted to cover the costs of services (OpEx if CapEx is covered by public funds) and cost inflationPlan contains innovative approaches for scaling up with financing and human resource needs • Planning informed by consultative platform, coordination and learning

Relevant indicators	• Plan contains advocacy activities to influence politicians and key influencers • Government-led monitoring system on sanitation is in place • Institutions have capacity to fulfil sector roles and responsibilities for sustainable sanitation service delivery at scale, including the availability of necessary structures, tools, training, and incentives • Government-led overarching capacity development plan for sanitation based on needs assessment • Different institutional stakeholders/providers have own capacity development plan • Training institutions have the capacity and resources to deliver the cadres needed for scaling up sanitation • Implementation is progressing against capacity development plans • Private sector capacity exists to deliver safely managed sanitation services in an efficient matter • Capacity exists to monitor services against indicators defined by national standards • Sanitation program owned by Government and endorsed by other stakeholders • Elected and non-elected representatives actively involved in planning and advocacy • Traditional and community leaders represented and engaged • Decentralization policy for sanitation exists and is backed by resources and accountability mechanisms • Line Ministry has a work program to support decentralization • Budget line for sanitation supply is successfully decentralized • Decentralized levels have adequate human resources to implement sanitation supply programs • Decentralized levels report back to Line Ministry on progress, challenges, needs and plans in sanitation supply • Social norms support the development of sanitation sub-sector • There is regular media coverage of sanitation access issues • Sanitation advocacy is regularly targeted to opinion leaders and decision makers • Religious leaders and traditional leaders actively support improving sanitation • Civil Society and other personalities (music, TV, sports) support improving sanitation • There exist sanitation provider(s) across the entire sanitation service chain (onsite, emptying, transport, treatment, disposal, reuse) who have the mandate or have accepted responsibility for providing sanitation services

Relevant indicators	• Sanitation providers have a costed plan for business operation, maintenance and expansion, including the voice of community, and includes sanitation security, disaster and climate risk management. • Annual work plans are reviewed and evaluated against actual performance using appropriate indicators, including customer feedback, and are publicly consulted and available • Service providers are incentivized and monitored (with legal enforcement including penalties) to ensure a safely managed service delivery chain • Service providers conduct a needs assessment for skills development and provide training options • Service providers keep accounts according to national accounting standards and audits are conducted according to national guidelines • Service providers have access to best practice and up-to-date tools and technologies for improving service delivery and scaling up services. • Business model is financially sustainable, and includes full operations and maintenance (O&M) services to ensure safe disposal, while ensuring minimum service levels are affordable to poor and vulnerable groups. • Policies and practices, including pricing, account for source protection/ conservation and waste management • Informal service providers are registered and monitored (including service quality)
Citations/ sources	UNICEF and SIWI (2016). Strengthening the Enabling Environment for Water, Sanitation and Hygiene. Guidance Note. New York: UNICEF. Link. SIWI and UNICEF (2016). Enabling environment and water governance. A Conceptual Framework. SIWI, UNDP Water Governance Facility, UNICEF. March 2016. Link. UNICEF (2016 onwards). WASH Bottleneck Analysis Tool website. UNICEF and SIWI (2020a). Review of the WASH Bottleneck Analysis Tool (BAT): Improving the WASH BAT as a tool for planning and partnering for sustainability. New York: UNICEF. Authors: Henning Göransson Sandberg, Ricard Gine, Antoine Delepiere, Alejandro Jimenez, Guy Hutton. Link on UNICEF.org. Link on WASH BAT website. UNICEF and SIWI (2023). The Water, Sanitation and Hygiene Bottleneck Analysis Tool (WASH BAT) Country Implementation Guide. New York: United Nations Children's Fund. Link. Mansour, Luna (2024) Water, Sanitation, and Hygiene in Schools: A Global Analysis of Bottlenecks and Climate Resilient Strategies. KTH (Royal Institute of Technology, Stockholm), School of Architecture and the Built Environment (ABE), Sustainable development, Environmental science and Engineering. Link.

WASH Poverty Diagnostics from the *World Bank*

Structure	**Areas of assessment and analysis:** • WASH coverage by poverty status • WASH – health linkages • Financing analysis • Oversight and accountability • Intergovernmental arrangements • Capacity
Indicators	Common analytical methodology customized to the specific needs and demands in each country
Data generated	18 countries from 2015-2018
Countries	Yemen, Dem. Rep. of Congo, Nigeria, Ecuador, Panama, Tajikistan, Tanzania, Indonesia, Mozambique, Haiti, Bangladesh, West Bank & Gaza, Guatemala, Ethiopia, Tunisia, Pakistan, Niger
Data collection methodologies	World Bank staff and consultants collect the required information together with sector partners. Financing data drawn from UN-Water GLAAS 2017 report.
Presentation	Maps and graphs in detailed country reports
Responses / decision making support	Informed national dialogue and World Bank's engagement with countries
Lessons for tool roll out	Lack of sustainability and expansion to other countries due to heavy studies and lack of sustained funding
Relevant indicators	Selected indicators as per structure above
Citations/ sources	World Bank (2017). Reducing Inequalities in Water Supply, Sanitation, and Hygiene in the Era of the Sustainable Development Goals: Synthesis Report of the WASH Poverty Diagnostic Initiative. WASH Synthesis Report. World Bank, Washington, DC. Link. 18 country reports available at Link.

Water Investment Scorecard from *AIP-PIDA (GWP Secretariat)*

Structure	**3 pillars:** • Enabling Environment for Water Investments. • Mobilising Water investments and financing. • Enhancing Investment performance and sustainability.
Indicators	47 indicators
Data generated	10 countries
Data collection methodologies	Secondary information, research and key informants, assembled by consultants. So far, two scorecards have been validated by in-country stakeholders (Benin and Cameroon).
Presentation	Spreadsheet and country reports.
Responses / decision making support	The Scorecard reports and the progress to address the gaps will be reported to African Union Heads of States. The tracking of the Scorecard indicators is an important step to increase the understanding of the issues impeding water investments. However, responding to the gaps and addressing them will be a critical step and this will be done through development of response strategies. The implementation of the response strategies will be spearheaded by countries, supported by partners based on their area of expertise and interest. The partners include the Scorecard partners from the Core Group and Technical Working Group who have supported its development.
Lessons for tool roll out	Ensure there is a country focal point who can facilitate data collection in-country and coordinate relevant stakeholders who should be engaged in the process. Work with existing data collection processes (e.g. WASSMO/ GLAAS data collection drives). In-country validation of data collected is critical to ensure stakeholder buy-in.
Relevant indicators	**1.1) Water Investment Governance and Planning** • Water sector governance, cross-sectoral leadership and institutional coordination • Implementation of integrated climate resilient national water, sanitation and hygiene investment plan and financing strategy (multiple sectors, rural and urban, climate-resilient, gender-sensitive, transboundary element) • Water and sanitation information and data management (including mutual accountability tracking systems) • Integration of water in national development plans, national climate change and adaptation plans (NDCs, NAPs) • Pipeline of bankable water security and sustainable sanitation projects • Capacity of institutions and human resources

Relevant indicators	**1.2) Investment climate** • Financial sector development • Sovereign risk • Government payment risk - quality of overall governance • Availability of matchmaking platforms to bring together the supply and demand for finance • Institutional regulation for water investments **1.3) Social and Environmental Inclusion** • Gender equality and transformative water investments • Social inclusion (youth, gender, vulnerable and marginalized populations) • Inclusion of women in the decision-making process • Environmental and strategic Impact Assessment and observing environmental standards **2.1) Government Expenditure** • Public budget commitment / allocation on (WASH, irrigation, energy, Nature and biodiversity protection) per capita • Public budget disbursement on (WASH, agriculture, energy, Nature and biodiversity protection) per capita • Public budget execution rate (WASH, agriculture, energy, Nature and biodiversity protection) per capita • Gender responsive budgeting system **2.2) ODA** • ODA commitment / allocation for water (WASH, agriculture, energy, Nature and biodiversity protection) per capita • ODA disbursement for water (WASH, agriculture, energy, Nature and biodiversity protection) per capita • Climate financing and investments (WASH, agriculture, energy, Nature and biodiversity protection) • Use of ODA in leveraging and attracting additional funding streams. • Multilateral and Development Financial Institutions commitment / allocation on (WASH, irrigation, energy, Nature and biodiversity protection) per capita • Multilateral and Development Financial Institutions expenditure (WASH, irrigation, energy, Nature and biodiversity protection) per capita

Relevant indicators	**2.3) Private and philanthropic investments** • Domestic private sector investment (WASH, agriculture, energy, Nature and biodiversity protection) • Public Private Institutional Partnerships on water (WASH, agriculture, energy, Nature and biodiversity protection) • Philanthropic finance to water sanitation and environment • Institutional investment (DFIs, Institutional Investors) • National Banks, MFIs, Local Governments **3.1) Investment performance / efficiency** • Structure of tariff and cost recovery mechanisms (including ring fencing) • Water and sanitation pricing efficiency • Sector governance: Efficiency Gains & Cost Savings in existing assets • Sector governance: Efficiency Gains & Cost Savings in new assets • Financial and operational performance of service providers • Clarity of mandate and performance obligations of service providers • Existence of economic and performance regulation • Existence of asset management in the sector **3.2) Investment sustainability** • Climate resilient water investments • Economic, social and gender impact evaluation of water investments
Future	The plan is to continue using the scorecard in pilot countries and to expand its use to other African countries.
Citations/ sources	AIP-PIDA (2022). AIP-PIDA Water Investment Scorecard. Link.

Water Integrity Risk Index from *Water Integrity Network (WIN)*

Structure	**Composite indicators** 1. Investment integrity risk 2. Operations integrity risk 3. Client-utility interaction integrity risk 4. Public procurement risk indicators contained within each of these pillars
Indicators	7 indicators
Data generated	The tool has been used in 12 communities across seven countries between 2012 and 2019
Data collection methodologies	Administrative datasets and survey data. The tool requires data on public procurement contracts related to water and sanitation, and, optionally, survey data on direct experiences with corruption (i.e., bribery) in the water sector.
Presentation	Tabular and graphical (with colour scoring), with estimation of composite indicators

Responses / decision making support	The Water Integrity Risk Index (WIRI) is a tool for measuring integrity in the water and sanitation sector at the city level. It allows you to assess smaller changes in integrity across cities within a country and over time. WIRI produces a score between 0 and 100. Cities with scores closer to 100 have lower risks of corruption. To date there has been no pick-up from decision makers.
Lessons for tool roll out	A challenging aspect of applying the tool is having access to adequate survey data on experiences of corruption in water and sanitation. In some regions, survey data is easily available (e.g. Afro-barometer), but in countries where survey data is not publicly/easily available, there must be additional funding and planning for the user to collect survey data themselves, which can be a significant barrier to easy use.
Relevant indicators	**Public procurement risk indicator:** • Length of the tendering decision period • Procedure type used to award a tender • Whether there was only a single bidder for a contract • Length of the advertisement of the tender • Whether the call for tenders was openly published • Investment integrity risk (IIR): • Integrity risks in investment projects • Public procurement risk indicators **Operations integrity risk:** • Public procurement risk indicators from maintenance. • Client-utility interaction integrity risk: • Public procurement risk indicator • Direct experience with corruption, represented as admission of bribery by households towards the W&S service.
Citations/ sources	WIN (2020). Water and Sanitation Sector Integrity Risk Index. Link. Tool website Link.

Annex 2. Market assessment tools and frameworks outside WASH

To ensure an improved understanding of the Sanitation Economy reflects concepts and frameworks used in other sectors of the economy, some general approaches to understanding markets for goods and services are explored briefly in this section. This chapter examines market categorisation frameworks, market development strategies.

Market (or product) categorisation frameworks

Frameworks explored here include the BCG Growth-Share Matrix, Porter's Five Forces, Technology Adoption Lifecycle Curve (TALC), the Gartner Hype Cycle, and the Product Life Cycle (PLC) Analysis. These will give a better understanding of what might be understood by 'Market maturity'. They are ordered chronologically, to show the evolution in thinking.

The BCG Growth-Share Matrix - put forth by the founder of BCG, Bruce Henderson, in 1970 - is a portfolio management framework that helps companies decide how to prioritize their different businesses by their level of profitability, thus allowing executives to decide where to focus their resources and capital to generate the most value, as well as where to cut their losses. For example, high growth products require cash inputs to grow while low growth products should generate excess cash.

Each of the four quadrants represents a specific combination of relative market share, and growth (see Annex 2 Figure 1):

1. Low Growth, High Share. Companies should milk these "cash cows" for cash to reinvest.
2. High Growth, High Share. Companies should significantly invest in these "stars" as they have high future potential.
3. High Growth, Low Share. Companies should invest in or discard these "question marks," depending on their chances of becoming stars.
4. Low Share, Low Growth. Companies should liquidate, divest, or reposition these "pets."

While these categories could be applied to the Sanitation Economy, this categorisation is not considered to be very useful for the Sanitation Economy. A sanitation business can naturally anticipate which areas of the business might be more profitable than others, and select their portfolio of products that meets their business objectives (e.g., there will be a trade-off between sales maximisation, profit maximisation, and market share maximisation). While generally useful to identify market share and growth, this framework is too simplistic, and does not contribute significantly to an understanding of market maturity.

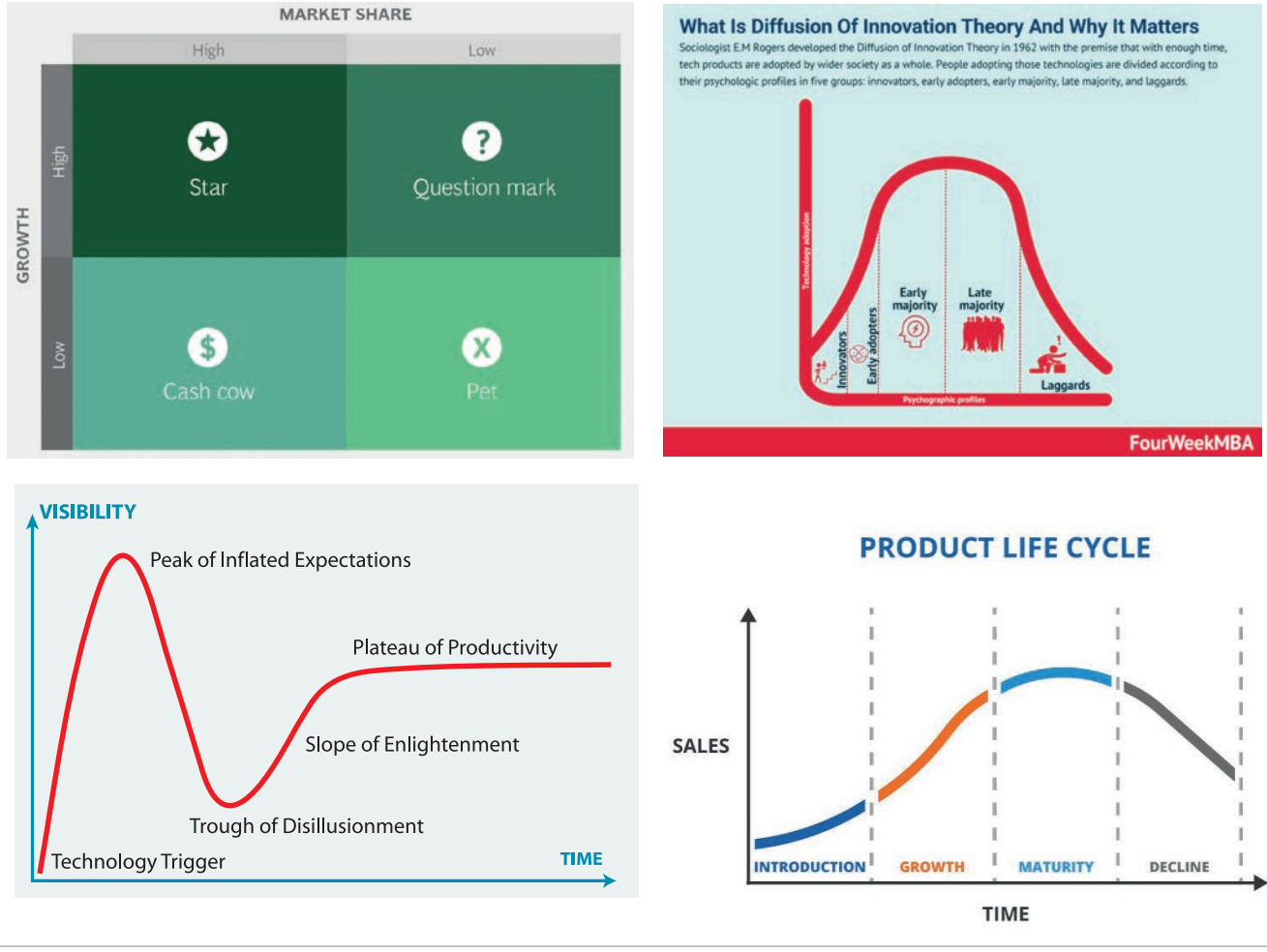
Porter's Five Forces is a model that identifies and analyzes five competitive forces that shape every industry, and is used to identify an industry's structure, determine corporate strategy and understand an industry's weaknesses and strengths (Porter, 1980). Porter's model can be applied to any segment of the economy to understand the level of competition within the industry and thereby enhance a company's long-term profitability. Porter's Five Forces are:

1. Competition in the industry.
2. Potential of new entrants into the industry.
3. Power of suppliers.
4. Power of customers.
5. Threat of substitute products.

These five Forces are relevant, in particular numbers 1 to 4.

ANNEX 2

Figure 1. Different representations of the status of a market product



(top left: Growth Share Matrix (BCG, 1980); top right: Technology Adoption Lifecycle Curve (Moore, 1991); bottom left: Gartner Hype Cycle (Linden and Fenn, 2003); bottom right: Product Lifecycle (Blank, 2005))

Technology Adoption Lifecycle Curve (TALC) was established by Moore (1991) as a tool to assist technology marketers in understanding the marketplace in which they operate. The curve looks similar to the product lifecycle curve, covered below, but uses different terminology referring to the class of consumer that adopts the technology: innovators, early adopters, early majority, late majority and laggards.

The Gartner Hype Cycle is a further development and way of expressing market dynamics (Linden and Fenn, 2003). It provides a graphical representation of the maturity and adoption of technologies and applications, their evolution over time, and how they are potentially relevant to solving business problems and exploiting new opportunities.

Each Hype Cycle drills down into the five key phases of a technology's life cycle.

1. **Innovation Trigger:** A potential technology breakthrough kicks things off. Early proof-of-concept stories and media interest trigger significant publicity. Often no usable products exist and commercial viability is unproven.
2. **Peak of Inflated Expectations:** Early publicity produces a number of success stories — often accompanied by scores of failures. Some companies take action; many do not.
3. **Trough of Disillusionment:** Interest wanes as experiments and implementations fail to deliver. Producers of the technology shake out or fail. Investments continue only if the surviving providers improve their products to the satisfaction of early adopters.
4. **Slope of Enlightenment:** More instances of how the technology can benefit the enterprise start to crystallize and become more widely understood. Second- and third-generation products appear from technology providers. More enterprises fund pilots; conservative companies remain cautious.
5. **Plateau of Productivity:** Mainstream adoption starts to take off. Criteria for assessing provider viability are more clearly defined. The technology's broad market applicability and relevance are clearly paying off.

The Gartner Hype Cycle can be applied to sanitation: for many populations, sanitation practices are new and require some kind of infrastructure and supplies. Following initial enthusiasm – e.g. after a triggering behaviour change using community-led total sanitation (CLTS) – there may be some disillusionment because people are not happy with their simple pit latrine and the peer pressure has lessened over time. This leads them to revert to the traditional practice of open defecation or ceasing to wash their hands with soap and water. Hence, the indicators related to behaviour change and common sanitation expectations and practices need to reflect the concepts introduced in the TALC.

The Product Lifecycle (PLC) was presented in The Four Steps to the Epiphany by Blank (2005) and encompasses four generic stages, which typically occur in the following order:

- **Stage 1.** Market development: when a new product is first brought to market, before there is a proven demand for it, and low sales. At this stage, businesses must ensure the acceptance of a new product or technology, and educate customers about the potential market.
- **Stage 2.** Market growth (or "takeoff"): when demand accelerates and the size of the total market expands rapidly.
- **Stage 3.** Market maturity: when demand levels off but may continue growing. At this stage, customers are already on board and there are likely to be many competitors – both price and product differentiation.
- **Stage 4.** Market decline: when the product sales decline due to loss of consumer appeal.

The timing of these stages can vary significantly between products, from months to decades. In a business context, the market maturity refers to the extent to which a product has progressed through these stages. A mature market refers to one that has advanced beyond the development and growth phases, and has reached some kind of equilibrium.

Market (or product) development strategies

Given the decades if not centuries of free markets (at different stages of evolution), the way markets can be developed has received a very significant amount of attention from different disciplines. Essentially, a market is either new (because there is a new product) or the market already exists. Blank (2005) put it simply and suggested that within existing markets there are two strategies for market development: either re-segmentation of an existing market as a low-cost player (e.g., low-cost airlines) or re-segmentation of the existing market by employing a niche strategy (by providing higher value to customers). Along these lines but expanding the scope, one product management platform identifies at least four popular market development strategies:

1. Geographic expansion - including across borders.
2. Targeting existing customers with a new or enhanced product.
3. Attracting non-users, such as offering free trials, cold outreach, or advertising.
4. Attracting competitors' customers, through attractive pricing, incentives or discounts, using lookalike audiences in advertising, or delivering a superior user experience.

Alternatively, the Ansoff Matrix is a way to categorize market development strategies based on new or existing products and new or existing markets. Market development focuses on selling existing products into new markets, placing them in the bottom left quadrant of the Ansoff Matrix. This is the second least risky growth strategy in the Ansoff model. The only better growth strategy on the Ansoff Matrix is market penetration, which sees existing products introduced into an existing market. The Ansoff Matrix is further developed by Bergersen et al (2019) and described in the next sub-section (see Annex 2 Figure 2).

ANNEX 2
Figure 2. The Ansoff matrix

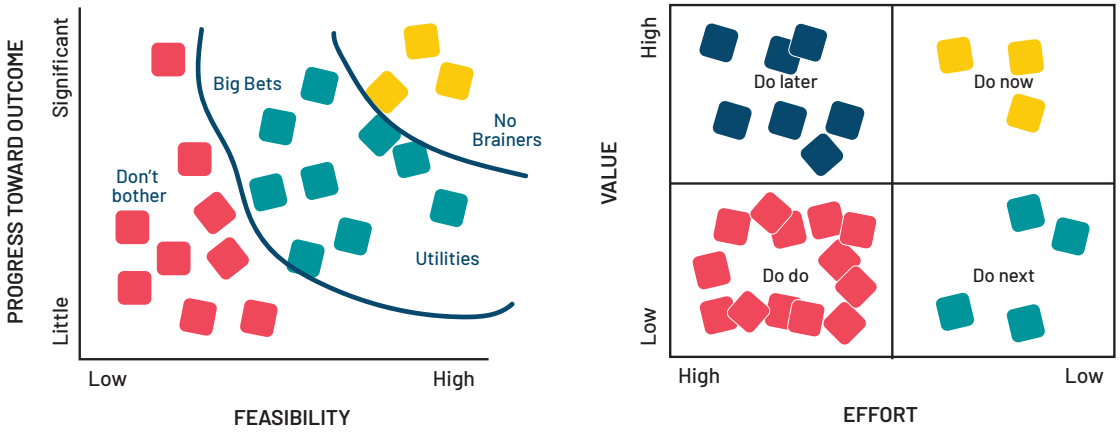
Source: *Wikipedia*

The product/market expansion grid is a framework used to identify growth opportunities and conceptualize their risk level. It offers a simple yet intuitive way to visualize the feasibility of new ideas. The y-axis can reflect the outcome such as progress or value, while the x-axis reflects feasibility or effort (see Annex 2 Figure 3).

Several challenges and obstacles impact a market development strategy, such as competition (which requires a unique value proposition), changing customer needs (requiring up-to-date customer feedback and market research, and appropriate response), regulatory barriers (requiring an understanding of the regulatory landscape and being compliant), and lack of brand recognition (requiring building brand recognition).

ANNEX 2

Figure 3. Prioritization grid (left side) and prioritization matrix (right side)



In his book "Crossing the Chasm", Moore (1991) examines the market dynamics faced by innovative new products, with a particular focus on the "chasm" or adoption gap that lies between early and mainstream markets. The book offers decision-making guidelines for a range of investors and stakeholders. The book's premise is that the early adopters of a product (or 'visionaries') and the early majority (the 'pragmatists') have very different expectations, and thus different strategies and techniques are required to develop the market. The author advises anyone with an innovation or new product to focus on one group of customers at a time, using each group as a base for marketing to the next group. Criticisms of the theory argue there are no such sharp breaks or discontinuities between adjacent adopter categories.

Advanced maturity models

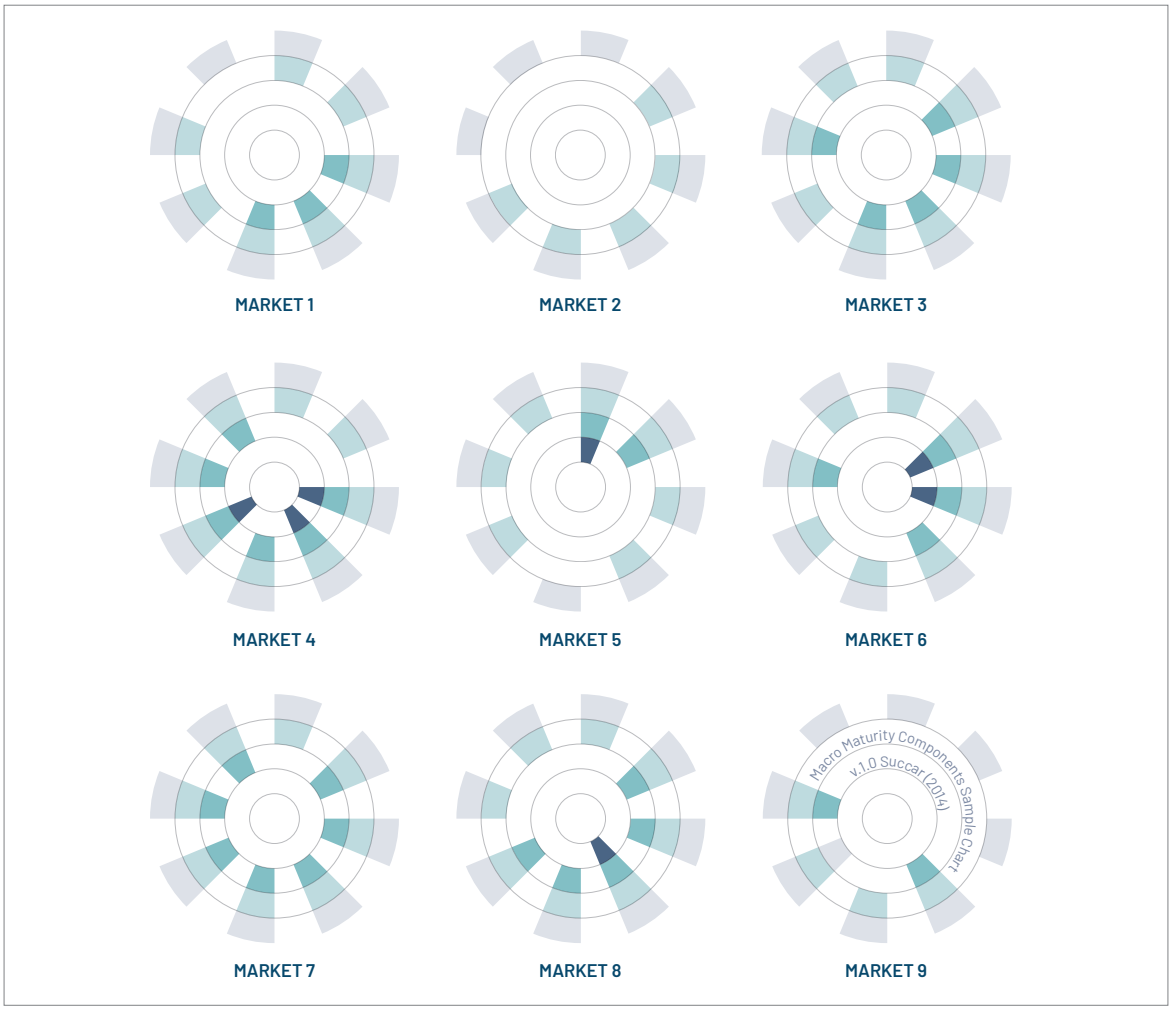
Several publications outline more advanced maturity assessment approaches than the simple market or product categorisation covered earlier. One important resource outside the sanitation sector is the **Building Information Modeling (BIM) approach**, which uses a shared digital representation of a built asset to facilitate design, construction and operation processes and to provide a reliable basis for decision-making (as defined by ISO 19650-1:2018). Although BIM is a very different domain from the Sanitation Economy, its maturity assessment framework has some relevance for the Sanitation Economy. The Macro Maturity Components model identifies eight complementary components for establishing and measuring the BIM maturity of countries and other macro-organizational scales. The language in the points below is adapted from BIM for the Sanitation Economy. And several ideas carried over to an understanding of the Sanitation Economy:

1. **Objectives, stages, and milestones:** the availability of clear policy objectives for the Sanitation Economy that detail a pathway towards universal coverage, including measurable maturity milestones separating current status from a quantifiable future target. This would be a Sanitation Policy, backed up by a Sanitation Sector Strategy or Strategic Plan.
2. **Champions and drivers:** the individuals, groups and organizations undertaking the task of *demonstrating the efficacy of* an innovative system/process to potential adopters. While champions are 'volunteer experimentalists', drivers are 'designated executors' of a top-down strategy with a mandate to stimulate sanitation scale-up. This would be the government institution mandated to deliver on the sanitation targets.
3. **Regulatory framework:** the contractual environment, intellectual property rights, and professional indemnity insurance underlying the Sanitation Economy.
4. **Noteworthy publications:** publicly available documents of relevance developed by sanitation stakeholders and intended to develop the Sanitation Economy. Publications can include guides, protocols, engineer designs, market assessments, studies on effectiveness and sustainability, and so on. This would be variously called evidence, studies, knowledge and information which can be used to enhance important decisions and inform implementation.
5. Learning and education: educational activities to strengthen the Sanitation Economy, delivered through tertiary education, vocational training or professional development. This would be the mechanisms to ensure there is a trained cadre for government and implementers to deliver on the sanitation targets.
6. Measurements and benchmarks: metrics covering the Sanitation Economy and market that enable an understanding of performance on a micro- or macro-scale and informs decision making of different actors to strengthen the Sanitation Economy. Benchmarking strengthens coherence and adoption of common standards.
7. Standardized parts and deliverables: terminologies and product components are standardized to facilitate trade and installation of sanitation infrastructure.
8. Technology infrastructure: the availability, accessibility and affordability of hardware, software, and network systems. It also refers to the availability, usability, connectivity and openness of information systems for the operation of the smart Sanitation Economy.

Each of these eight components is given a maturity level on a 5-point scale from 1 (low maturity) to 5 (high maturity). Annex 2 Figure 4 provides an illustration of a visual representation of such a scoring in different markets.

ANNEX 2

Figure 4. BIM Macro Maturity Components Sample Chart



A second important publication proposes a holistic maturity model for academic spin-offs which identifies three key success factors as technology, market and founders (Foro and Tuppinger, 2023), further detailed in Table 1 of that publication. The authors state that maturity models can serve as a guideline that supports founders in overcoming the discrepancy between the actual and target state in the spin-off process. According to the authors, the maturity model should be an assessment model for both self-assessment and external assessment, with the aims of providing support in determining the timing of the spin-off and enabling the user to determine improvement potentials or next steps. The quality criteria for market maturity development are provided in Annex 2 Table 2, which are reflective of the 'SMART' indicators used by development organisations. A holistic market maturity model is presented in their paper (see Table 7 in: Foro and Tuppinger, 2023) that combines different degrees of advancement and performance of technology, market and founders, and scores them accordingly on a 9-point scale. Detailed requirements at each maturity level are provided (see Table 8 in: Foro and Tuppinger, 2023) which might provide useful guidance for understanding the Sanitation Economy.

ANNEX 2

Table 1. Quality criteria of market maturity (MM) development

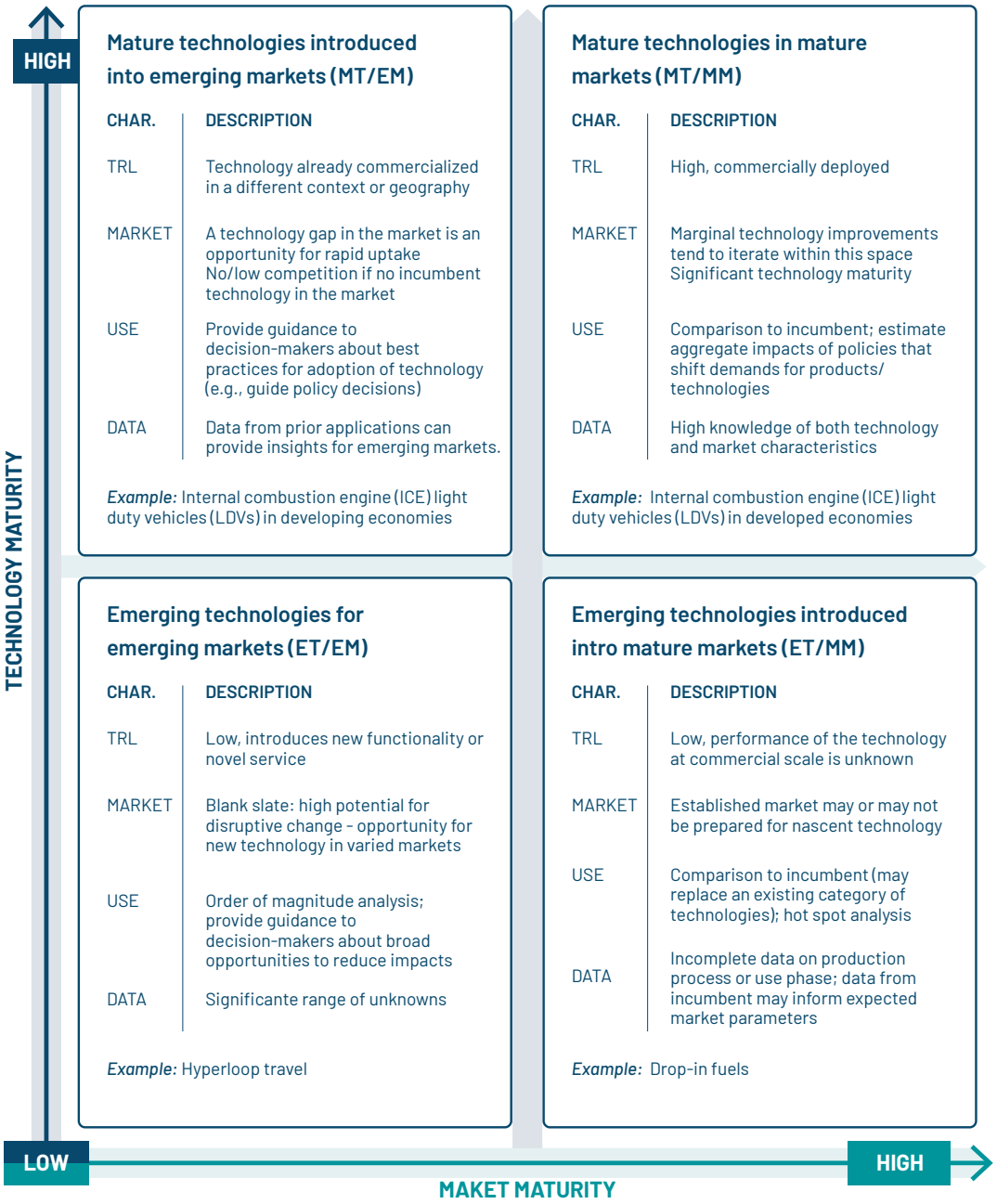
Criteria	Description
Objectivity	The MM should arrive at comparable results when investigating the same problem and using the same methods, regardless of the person conducting the investigation. There are clear instructions on how to conduct the interview and only closed response formats are used, then the objectivity of the MM can be considered assured (Rammstedt, 2010).
Reliability	The MM should deliver reproducible results, i.e. the maturity level should be determinable without being influenced by situational or random circumstances. Subsequently, the MM should contain indicators that can be identified and determined beyond subjective perception (Rammstedt, 2010; Khan, 2016).
Validity	The MM should measure what it is supposed to. The survey should therefore consider as many aspects of the dimension being measured as possible (Rammstedt, 2010).
Relevance	The MM should contain all those indicators without whose existence the benefits of MM use would decrease, i.e., it should only consider aspects that are relevant for determining the maturity level (Khan, 2016).
Applicability	The theoretical and empirical knowledge embodied in the MM should be transferable to the target object (Khan, 2016).
Manageability	The MM should enable efficient use (Khan, 2016).

Source: *Foro and Tuppinger, 2023; based on Rammstedt, 2010, and Khan, 2016*

A third publication is Bergerson et al (2019) which proposes evaluation techniques at different stages of market and technical maturity. It appears to be a further development of the Ansoff Matrix, covered earlier. Annex 2 Figure 5 helps an analyst situate themselves in a quadrant that will then lead to specific questions that affect choices at the goal and scope definition stage as well as selection of methods to employ in their study. Inside the quadrants are descriptions of the characteristics that would help an analyst fit their study into a quadrant. 'Use' refers to the common types of decisions being informed using life cycle analysis.

ANNEX 2

Figure 5. Proposed technology and market maturity quadrants



Source: *Bergerson et al (2019)*

Bergerson et al (2019) provide advice for technologies in different quadrants in Figure 32. Annex 2 Table 2 lists a number of questions to answer when conducting lifecycle assessment of emerging technologies. While these are generally not relevant for understanding the Sanitation Economy given its overall economy/market focus, they will be relevant for individual investors and businesses seeking to develop the market for specific products or technologies.

ANNEX 2

Table 2. Questions to pose during goal and scope definition when conducting lifecycle assessment of emerging technologies

Technology factors	Market factors
Interaction with technological system • Does the innovation fit within an existing technological system (e.g., a new part), or is it an entirely new system? • Does it require/allow changes to the rest of the system (e.g., vehicle light weighting allows for powertrain resizing) • Is the technology standalone or does it require changes to background infrastructure (e.g., electric vehicle charginginfrastructure)? See additional "market" questions **Functionalmaterials (e.g., rare-earthmetals for EV batteries)** • Are there resource criticality impacts or supply limitations? • What are the supply chains and LCA impacts associated with thesematerials? • Do novelmaterials (e.g., nanometals) introduce new environmental concerns, and how might these be quantified? **Commercialization pathway** • What are current commercial or lab scalematerial and energy requirements? • What scale is considered and what scaling rules apply (e.g., improved heat transfer at scale for a chemical process)? • What future process efficiency improvements can be expected? Over what time horizon? • Are there thermodynamic limits to process improvement?	**Service offered by the technology** • Does the technology offer a new service or change to existing services? • For general use technologies (e.g., internet),what use cases are considered (e.g., entertainment? online commerce? telecommunication?) **Background systems** • Policies and regulations? • Characteristics of supporting infrastructure (e.g., Emission intensity of the average or marginal electric grid, existing road networks, and fuel distribution systems)? **Consumer behavior** • How will the technology be used (e.g., will autonomous vehicles be shared, or individually owned?) • Howwill the technology affect existing consumption patterns (e.g., direct rebound effect (Sorrell, Dimitropoulos, & Sommerville, 2009),mix of products consumed, characteristics of those products)? • What incumbent product (if any) will be displaced? • What supporting technologiesmay be encouraged/enabled? • User interactions? **Market dynamics** • Indirect rebound effects (e.g., income rebound, indirect fuel use effect) and other market-mediated effects (e.g., indirect land use change, learning-by-doing, spillover effects to other regions or technologies)?

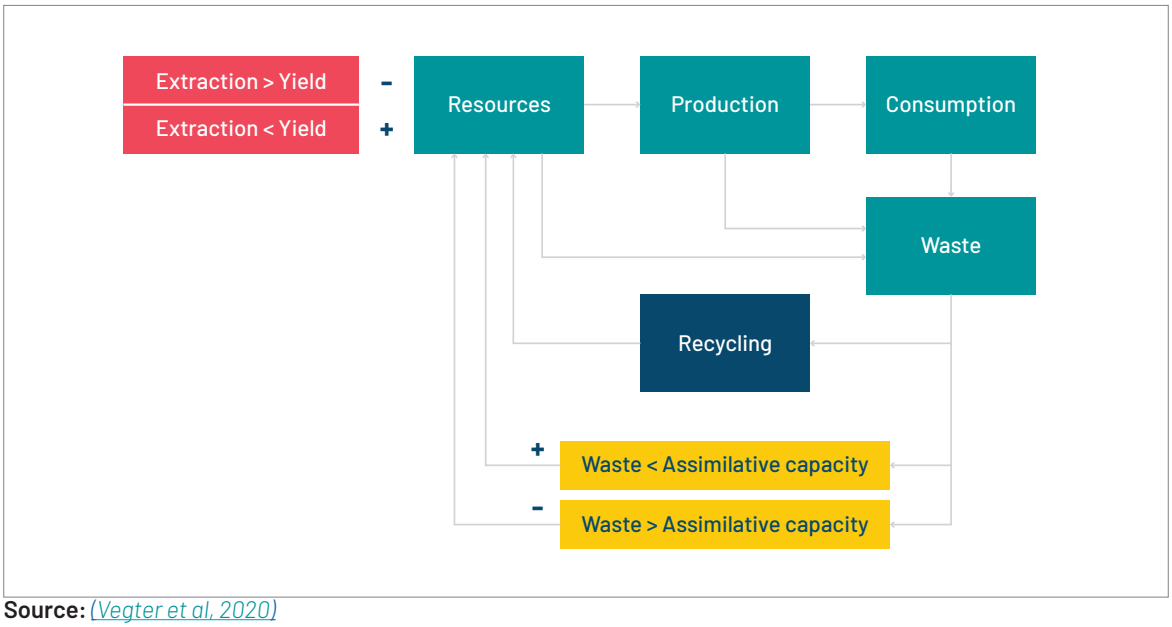
Technology factors	Market factors
Production and use characteristics • The product's functional unit(s)? • Underlying manufacturing technology (e.g., thermochemical vs. biochemical routes)? • Facility design (e.g., purpose-built vs. assembly line; batch vs. flow reactor)? • What are the direct process emissions and production process inputs (e.g., energy needs)? • What is the expected efficiency and/or emissions in use phase? • Expected product lifetime? • What co-products are produced? • Other characteristics that affect end use (e.g., electric vehicle range and charging time)?	**Interference or effects of other incumbent technologies (e.g., uptake of drop-in fuels may prolong use of ICEVs andmake electric vehicles less competitive in the near term)? Adoption patterns and characteristics of adoption regions:** • Speed of adoption, diffusion effects? • Location of potentially impacted systems (e.g., is there a sensitive ecosystem nearby? is there a large population center that will experience changes in air quality)? • Heterogeneity of local background systems? • Local climate? • Cultural and social preferences affecting adoption patterns and use? **Internal consistency** • What is the time frame and geography of analysis? • Is evolution of background and foreground systems consistent (e.g., greening of electric grid alongside improvement of the technologywithin future scenarios)? • Does the background system respond to the rollout of the technology (e.g., do electric vehicles play a role in grid storage? Is additional electricity demand accounted for?)

Source: *Bergerson et al (2019)*

A fourth resource and line of inquiry is an assessment of supply chains in circular business models, an article which also provides a useful review of the literature until 2020 (Vegter et al, 2020). Supply chains are of central importance for the sanitation circular economy to function. The study results are presented according to the eight processes that conceptualize a supply chain in a circular business model: (1) Plan, (2) Source, (3) Make, (4) Deliver, (5) Use, (6) Return, (7) Recover, and (8) Enable. Previous studies that examine each of these are assessed in the paper, and are worthy of further application to the case of sanitation. Annex 2 Figure 6 shows a simple model for the circular economy. According to the authors, assimilative capacity is the capability of nature to absorb waste and convert this into harmless or useful resources. As long as waste is disposed within the assimilative capacity, the environment retains its capability to convert this waste into resources. However, if the waste that is disposed exceeds the assimilative capacity, the capability of the environment to provide resources is damaged. This will lead to a decrease of resources. Finally, extraction of resources which exceeds its yield will also lead to a damaged capability of the environment. This will also lead to a decrease of resources.

ANNEX 2

Figure 6. Circular economy model



Source: *(Vegter et al, 2020)*

Vegter et al (2020) describe how supply chains in a circular business model are characterized by six performance objectives:

1. Minimize the use of materials, water and energy.
2. Minimize inventory.
3. Maximize the efficient use of supply chain assets (trucks, warehouses, machines, equipment).
4. Minimize waste.
5. Maximize the availability of the product.
6. Maximize the number of recovery flows.

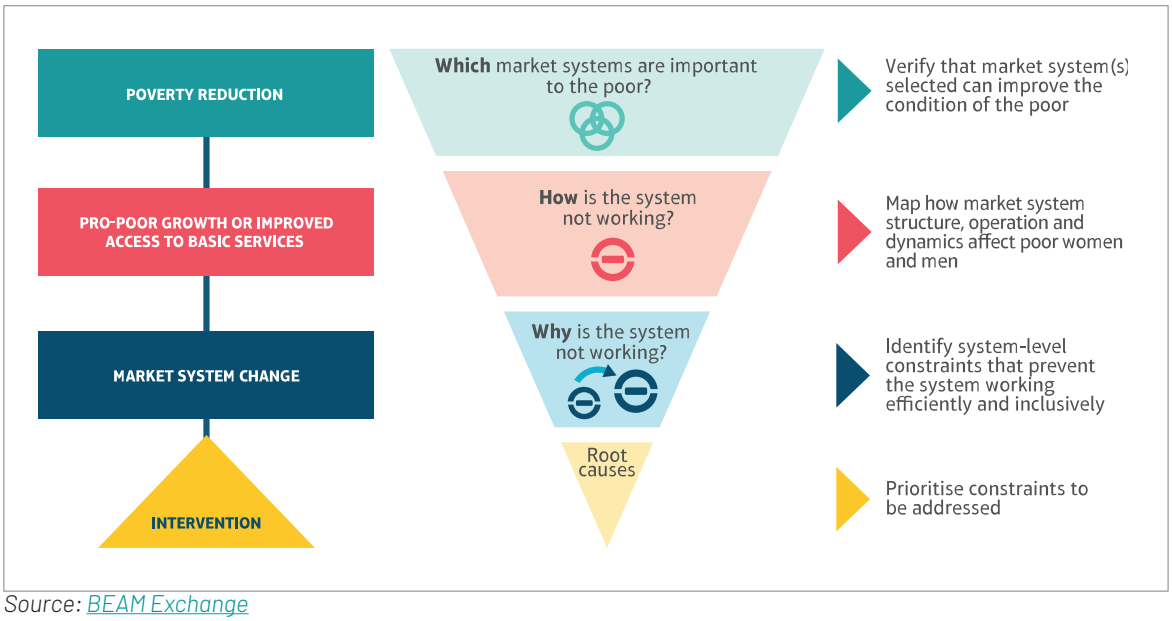
A fifth relevant initiative is the BEAM Exchange (Building Effective & Accessible Markets) which is a specialist platform for knowledge exchange and learning about using market systems approaches to reduce poverty. According to BEAM, market systems approaches differ from other private sector development approaches by focusing on promoting a different role for donor agencies, impact investors, governments and other development actors, in bringing about pro-poor change, by addressing the underlying causes of poor performance in specific markets that matter to poor people (see Annex 2 Figure 7). Market systems approaches then stimulate changes in the rules, relationships, barriers and incentives that affect how public and private actors behave, helping important market functions to perform more effectively. If successful, this improves the whole market system – enabling multiple businesses to innovate, grow, reach out and serve wider populations.

Market analysis is a diagnostic process to uncover the root causes and not just the symptoms of why markets underperform for poor people. A thorough market analysis will help understand how the market operates and how it affects the poor. It includes a gendered analysis and a political economy analysis. Market systems are complex, so identifying root causes can be difficult and time-consuming. A 4-step process is proposed:

1. Verify that the initial market systems selected are still valid.
2. Map the market system. Investigate opportunities to affect the target group by identifying how key market system(s) operate, who the major players are, and how the market system is changing.
3. Identify system-level constraints (root causes) and understand why the system is underperforming.
4. Decide what constraints are priorities. Focus on the most pressing constraints and the ones that could be tackled within the program's lifetime.

ANNEX 2

Figure 7. Analytical framework for the BEAM approach



Source: BEAM Exchange

A publication that further explores one approach of BEAM is "Adopt-Adapt-Expand-Respond: a framework for managing and measuring systemic change processes" from the Springfield Centre for Business in Development produced a publication.

Finally, the VIRAL (Venture Investment-Readiness and Awareness Levels) Pathway framework developed by Maine Technology Institute helps entrepreneurs and investors use the same language at the top of the funnel. VIRAL helps entrepreneurs become self-aware and articulate just how ready they are for investment. It allows investors to communicate the point at which they want to invest. The VIRAL framework outlines nine levels that companies go through over the lifetime of the firm (see Figure 8). It also identifies milestones across a range of categories: team, product, and business model, and others.

ANNEX 2

Figure 8. Venture Investment-Readiness and Awareness Levels (VIRAL) Pathway - *Source: Maine Technology Institute Link*

VILLAGE CAPITAL VIRAL PAT					
Level	**Name**	**Team**	**Problem and Vision**	**Value Prop**	**Product**
9	Exit in Sight	Team positioned to navigate M&A, IPO.	Global leader in stated vision.	Cited as the top solution in the industry solving this problem.	Product recognized as top in industry
8	Scaling Up	Team is recognized as market leaders in the industry	Systems-Level Change validated.	Multiple renewals with low sales effort. Customers in multiple markets love the product.	Strong customer product feedback in multiple markets.
7	Hitting Product-Market Fit	C-suite as good or better than founding CEO and can stay with company through its growth and exit phases.	Impact is successfully validated.	Majority of first sales in target market are inbound.	Product is built for scale and additional offerings in progress.
6	Moving Beyond Early Adopters	Team has proven sales, product dev skills, and management ability to support a growing team for scale.	Sales validate impact tied to solution and grow as solution scales	Sales beyond initial target customers. Customers love it and are referring the product to others.	Complete product with strong user experience feedback
5	Proving a Profitable Business Model	Team has clear sales/ops understanding and strategy.	Evidence of impact tied to solution-the company has evidence that by growing the business, company solves the problem.	Target customers love the product and want to keep using it.	Fully functional prototype with completion of product for wide commercial distribution in sight.
4	Validating an Investable Market	Team has clear understanding of how their target market operates and has strong industry contacts in this market.	The company can articulate system-level change - how this solution would transform the industry.	Evidence of differentiation through initial target customer feedback that the solution solves their problem significantly better than others in the market.	Team has clear understanding of product development costs and how to build the initial product cost-effectively.
3	Solidifying the Value Proposition	Team has technical ability to build fully functional product and has a clear understanding of the value chain and cost structures in their industry.	The company can articulate why they're the best ones to solve this problem.	Evidence that customers will pay the target price. For B2C - 100 customers, for B2B - 5 customers and conversations with multiple stakeholders in each.	Team has built a working prototype and a product roadmap
2	Setting the Vision	Team has senior members with lived experience of the problem and/or deep understanding of their target customer's problem.	The team can solve the problem and can articulate its vision at scale - what does the world look like if they succeed?	The team has potential customers who provide evidence that solution solves key pain point - product is a painkiller, not vitamin.	Team has a basic lowfidelity prototype that solves the problem.
1	Establishing the Founding Team	Strong founding team - at least 2 people with differentiated skillsets.	Team has identified a specific, important, and large problem.	Team has identified their hypothesis of their target customer - the specific type of person whose problem they are solving. Team has ability to develop low-fidelity prototype and has freedom to operate - not	Team has ability to develop low-fidelity prototype and has freedom to operate - not blocked by other patents.
Level	**Name**	**Team**	**Problem and Vision**	**Value Prop**	**Product**

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Market	Business Model	Scale	Exit	Type of funding typically closed at this level
Clear line-of-sight to industry dominance	Minimum 2x revenue growth for multiple years.	Strong unit economics for multiple customer segments.	Growth with exit.	Acquirers
Brand established. Hardto-beat partnerships for distribution, marketing, and growth	MOM revenue meets industry standard.	Growth of customer base accelerates month-onmonth.	Team has turned down acquisition offer.	Close Institutional VC for Recurring Revenue + Growth
Sales cycles meet or exceed industry standard.	Business model validated -Validation of strong unit economics.	Evidence of strong unit economics across multiple markets.	Team has strong relationships with multiple acquirers.	
Supply/distribution partners see their success aligned with the company's success.	Sales begin to map to projections. Evidence of decreasing CAC with growing customer base buying at target price.	Company has cleared regulatory challenges and (if applicable) is implementing a strong IP strategy.	Team has identified specific acquirer(s) or other exit environment.	Close Institutional VC for 1st Sales, Market Expansion
Team is having conversations with strategic partners to capture their market faster/cheaper than the competition.	Financial model with evidence of valid projections to reach positive unit economics.	Vision and initial evidence of positive unit economics in two markets.	Inbound interest from large strategics.	Close Round with Angel and Early VC
Evidence of $1B+ total addressable market.	Team has financial model with cost and revenue projections articulated and a strategy for hitting these projections.	Initial evidence that multiple types of customers find value in the solution or in an extension of the product that the company is wellpositioned to develop.	Evidence of growth trajectory that could lead to IPO, acquisition, or selfliquidating exit.	Friends and Family, BootStrap / Angel/Seed Funding Starts
Initial evidence through sales that team can capture initial target market.	Team can articulate projected costs along the value chain and target cost points to reach positive unit economics.	Clear strategy to move to multiple markets.	Initial evidence that the solution already solves the problem better than any incumbents.	Grants for R&D (Hardware)
Team understands any regulatory hurdles to entering the market and has a strategy to overcome them.	Company can point to pricing and business models of similar products in the industry as further evidence that their revenue assumptions hold.	Initial evidence that multiple markets experience this problem.	Vision for growth has company solving a large piece of the global problem in 10 years.	
Team can clearly articulate total addressable market, the percentage they will capture, and initial target market.	Team has identified an outline of revenue model	Team has identified multiple possible markets or customer segments and has aspiration to scale.	Team understands what an exit is and has a vision for how they will ultimately provide a return for their investors.	

Market	Business Model	Scale	Exit	Type of funding typically closed at this level


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