Agenda for Change: WASH Systems Change Research

Synthesis findings from case studies

Kate Fogelberg, Springfield Centre

Harold Lockwood, Aguaconsult





Springfield Centre 4 Saddler Street, Durham DH1 3NP, United Kingdom +44 (0)191 383 1212 global@springfieldcentre.com springfieldcentre.com

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HEADLINE FINDINGS

Systems strengthening approaches have contributed to scalable improvements in service delivery across the three cases analysed. The likely ownership and sustainability of these successes are influenced by several key factors.

These findings are based on a limited sample of the wider Agenda for Change membership and the sector as a whole; therefore, lessons should not be considered as representative, but rather illustrative of the value of taking such system-strengthening approaches. Nuance is required in interpreting the results and extrapolating to other contexts.

The goal of this research was to explore the links between Agenda for Change members' activities with changes in the WASH system and, ultimately, service delivery outcomes. Simply put, do efforts to strengthen a system contribute to improved outcomes?

In all three cases of system strengthening, from rural sanitation in Cambodia, to rural water in northern Perú, to privately supplied water in Madagascar, the research team found evidence of members' system strengthening activities leading to certain changes in the WASH system, which contributed to increases in service delivery. However, the extent of change, the scale at which these changes occurred, and the likely long-term resilience of such changes – as assessed by the degree of 'ownership' on the part of permanent system actors – was variable. Interventions to achieve system strengthening are further influenced by several key factors, including the operating context, change agent financing conditions, and the ability to adopt adaptive management approaches.

Systems strengthening approaches vary depending on the operating context and implementation strategies adopted

Broader contextual factors such as the socio-economic status of a country, the presence and strength of government (sector) institutions, and the capacity of local private sector actors have an important influence on the likely success of system-strengthening efforts.

The case study findings identify a 'spectrum' of operating contexts, within which a range of systems-strengthening approaches have been applied, resulting in varied outcomes (see Figure 1). In a simplification of this spectrum, at one extreme we find challenging environments, in which Agenda for Change members (or change agents) may struggle to achieve lasting change in the face of a capacity vacuum, with little prospects of lasting ownership of changes in behaviour. On the other end of the spectrum, where greater (public) resources are available, and capacities are higher, long-term resilience of changes in behaviour and ownership are more likely to occur. These extremes in context may in turn drive the <u>strategies</u> adopted by change agents, from one that emphasizes direct intervention and a focus on direct service delivery, to one that is more focused on empowering and enabling permanent system actors to strengthen the system themselves.

Ownership + resilience	Lower levels of resilience post -withdrawal of systems change agent Limited or no ownership of systems changes -	Higher levels of resilience post withdrawal of systems change agent - permanent actors incentivized High ownership of systems changes - use of public resources
Systems strengthening approaches	Isolated activities aimed at single factors Systems change agent intervenes directly to improve factors Limited to no empowerment of permanent actors	Interventions based on understanding between linkage of behaviors and factors Systems change agent mainly acts as enabled / facilitato Permanent actors empowered
	Limited demand for improved WASH	Demand for WASH services No direct service delivery activities
Operating contexts	Low resource Unstable and vulnerable Low or no government capacity Weak private sector	Higher resource Stable operating environment Functional government with capacity Vibrant private sector

Figure 1: Spectrums of contexts, approaches, and outcomes

METHODOLOGY

The Agenda for Change Global Hub contracted a team from the Springfield Centre and Aguaconsult to test an approach to assessing systems change by applying it to three WASH cases. The approach being tested has been adapted from practices applied in other sectors measuring systems change.¹ This includes an analysis of system changes over time including what has changed, looking at 'actor behavior changes' and 'factor performance changes', and why changes have occurred. In addition, the analysis considers the links between program activities, external influences, actors, factors, and service delivery levels. It also assesses the depth, scale, and likely sustainability of changes.

While member organizations' implementation approaches vary, broadly speaking they all undertake **activities** to instigate changes in key **WASH system factors** (such as monitoring, finance, planning, etc.). These changes may be actor behavior changes, factor performance changes, or ideally, both. In turn these positive changes to WASH system factors are intended to deliver positive changes in **WASH service delivery levels**, ultimately leading to improved health and livelihood outcomes. Figure 2 provides a summary research framework identifying what needs to be assessed at each level of the theory of change based on the questions outlined above.

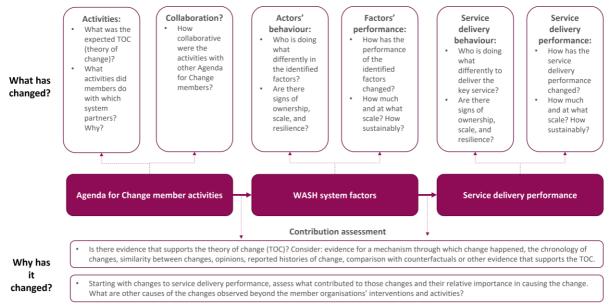


Figure 2: Research framework

It should be noted that this approach, like all theory – based evaluations, does not aim to prove a theory in a statistically significant manner. Rather it provides a plausible case of what changes have occurred and how a member's intervention likely contributed to those changes. The analysis for all case studies was carried out remotely and entirely based on existing data, information, and reports provided by members, complemented by gap – filling interviews with key program staff members.

BACKGROUND TO THE CASE STUDIES

Operating contexts

Cambodia, Perú, and Madagascar are very different countries and thus presented an interesting sample for the research, illustrative of a range of other countries for learning and potential replication purposes. Table 1 below provides a high-level summary of the different operating contexts relevant for the purposes of the research.

Country	Case study system boundary	Coverage data by system boundary type (JMP, 2020) ¹	GNI per capita, PPP (current Intl) 2017 ²	Poverty Headcount Ratio at US\$1.90 a day ³	Fragility Index score/global rank, 2021 ⁴
Cambodia	Rural sanitation	At least basic: 61.0% Limited: 8.3% Unimproved: 5.2% Open defecation: 25.4%	\$3,680	17.7% (2015)	80.6/54th
Madagascar	Private sector managed rural water	Safely managed: 9.5%% Basic: 26.9% Surface water: 18.0% Unimproved: 44.0 % Limited: 1.6%	\$1,540	70.7% (2012)	79.5/58th
Perú	Rural water	Safely managed: 22.1% Basic: 58.7% Unimproved: 9.6%	\$11,930	21.8% (2015)	71.4/85th

Table 1: Summary of operating contexts in the three case studies

Income levels in the countries analysed vary from low income in Madagascar, to lower middle in Cambodia, to upper middle income in Perú. Although GNI per capita in Perú is almost four times that of Cambodia, they both have a similar proportion of their population living below the international poverty line (almost 22% and 18% respectively). By contrast, in Madagascar over 70% of the population is living in poverty by this same measure, presenting significant challenges for cost recovery and viability of private sector models for provision of water services.

The wider socioeconomic context is important to consider when implementing a WASH system strengthening approach. The overall state of the economy, from household income that can be directed towards water and sanitation goods and services, to private investment in supplying or managing infrastructure, and public investment to expand and sustain services, can influence the likelihood of success.

Beyond wider socioeconomic conditions, the maturity of the water or sanitation sector is another contextual factor that varies from case to case. For our purposes, the 'maturity' of a sector – often referred to as the enabling environment - includes aspects such as the existence of a national water or sanitation policy, clear institutional arrangements, national

¹ https://washdata.org/data/household#!/

² https://data.worldbank.org/indicator/NY.GNP.PCAP.PP.CD?end=2017

³ https://data.worldbank.org/indicator/SI.POV.DDAY

⁴ https://fragilestatesindex.org/global-data/

monitoring frameworks, an operational independent regulator, and a public financing strategy being implemented. At the low end of the spectrum is Madagascar, which has yet to develop a sustainable sector financing strategy, does not have an independent regulatory body, and has been challenged to implement the 1999 Water Law. Cambodia's sanitation sector can be considered as relatively advanced, with policies and institutional arrangements in place, but weaker in terms of public financing strategy for rural sanitation. Lastly, Perú can be considered high maturity, evident in its National Policy for Universal Water and Sanitation Services, an independent regulator responsible for both urban and rural water services, relatively clear institutional arrangements between different levels of government administration, and public sector financing strategies and plans that have survived multiple central government rotations.

Lastly, and more linked to the specific service delivery system that the cases focused on, is a range of sub – systems relating to the system strengthening efforts of Agenda for Change members. The Cambodia case analysed an experience in the rural sanitation system where coverage levels stand at 61% and there has been a lot of effort, largely driven by international development partners, to promote household latrine adoption over the last decade. In Perú, the case investigated an experience in the rural water system, where coverage levels are already relatively very high (at over 80% for safely managed and basic levels combined). The system investigated in the case of Madagascar centres on promoting private sector participation (PSP) through establishment of private water operators, but in a context of high poverty levels and where over 60% of the rural population still rely on unimproved sources, including surface water for drinking purposes.

Member characteristics

In addition to different operating contexts, the three cases exhibit diversity in member characteristics, ranging from the type of institution, phase of work, length of time engaged in the system, and financial resources.

For example, WaterSHED was a non - governmental organisation (NGO) operating exclusively in Cambodia, but which was dissolved in June 2021 following an explicit withdrawal strategy. Water For People is an international NGO that operates in nearly forty districts in nine countries. And RANO WASH is a consortium of three Agenda for Change members – Catholic Relief Services (CRS), CARE, and WaterAid - as well as two Malagasy private businesses, and multiple sub – contractors, implementing a six -year USAID funded project in six regions of Madagascar.

At the time of analysis, WaterSHED had recently closed its twelve - year programme and was the only case completed after the organization had exited the sector. Water For People has been implementing its 'Everyone, Forever' model aimed at sustainable universal water and sanitation services in the district of Asuncion for eight years. In this time, they achieved their internal 'Everyone' milestone of universal access and were working towards supporting the sustainability of those services before a potential withdrawal from the district in 2027. And although RANO WASH is a timebound USAID funded project still in its implementation period, it builds on both prior USAID investments into privately supplied drinking water and decades of work in the sector by CRS [since 1962], CARE [since 1992], and WaterAid [since 1999].

The type, source, and amount of funding is also an important dimension of the ability of Agenda for Change members to conduct system strengthening strategies. Over its lifespan, WaterSHED was funded by a variety of foundations and private sector donors.⁵ An exact

⁵ Funders of WaterSHED have included the following: The Stone Family Foundation, Bill and Melinda Gates Foundation, USAID, The Waterloo Foundation, Who Gives A Crap, WaterAid, Vitol Foundation, Grand Challenges Canada, Unilever, and the Diageo Foundation.

figure of total investment was not included in the analysis but according to WaterSHED staff, the budget varied between USD 1 - 2 million per year over a roughly twelve-year period. The range and diversity of sources afforded WaterSHED a high degree of flexibility in terms of utilising the funding.

Water For People's business model prioritises unrestricted funding, which can be directed towards activities it sees as important to its systems strengthening approach to service delivery. Many similar international NGOs operate on a project-by-project business model, but in Water For People's case, country teams develop multi-year operational plans for their work in each district (plus replication and national scale efforts), then the business development team raises funds to meet those needs, which includes a significant portion of unrestricted funds. In this case specifically, from the period 2012 to 2020, it is estimated that USD 2.59 million from 5 donors⁶, as well as unrestricted organizational funds, have been invested.

RANO WASH, by contrast, is a timebound single – donor funded project with some cofinance from consortium members. The infrastructure investment costs by both RANO WASH and private operators at the time of analysis in the illustrative Atsinanana region amount to USD 680,000 as documented in the case study. However, the total cost of the systems strengthening activities were not clear from the materials reviewed.

The ability to adapt, expand, or cease activities – often referred to as 'adaptive management' is another important characteristic of system strengthening approaches. To change course or expand efforts in a particular set of interventions, however, an implementer needs to both know what is working and what is not and have the 'license to operate' (i.e., flexibility and autonomy in decision-making) from its funders to change tactics if needed.

SUMMARY OF FINDINGS

4.1 Service delivery changes

Although each member used slightly different service delivery indicators to track progress over time, irrespective of the method used, the research found increases in service delivery metrics within the system boundary in all three cases, as shown in Table 2.

Member name	Baseline service delivery figures	Year	Updated service delivery figures	Year
WaterSHED	29% household sanitation coverage	2011	77% household sanitation coverage	2017
Water For People	84% household water coverage	2013	97% household water coverage	2019
RANO WASH 13% of households with access to basic or safely managed water		2018	+66,000 people ⁷ with access to basic or safely managed water	2021

Table 2: Summary of service delivery changes analysed

⁶ Funders of Water For People's work in Asuncion include Green Empowerment, Kimberly Clarke, Caterpillar Foundation, Colgate Perú, and Xylem

⁷ At the time of analysis, percentage level changes were not available, but increased numbers of people with access to basic or safely managed services were available in RANO WASH reports.

The figures cited in Table 2 reference changes in access over a period in which sector measurement changed from 'unimproved' and 'improved' to composite indicators, most notably the WHO / JMP service delivery ladders. Each case analysed, however, did track information 'beyond' access.

For example, although WaterSHED's data remained at the 'improved' / 'unimproved' level consistent with sector measurement over the course of their program, they conducted a separate piece of research to understand if and how consumers were using toilets they had purchased. Findings confirmed that *"over 90% of households that bought new latrines in the Hands-Off program area had never owned a latrine before and had mostly practiced open defecation...and the study found that amongst latrine adopters there was very little open defecation - 3% for adults and 15% for childrenⁱⁱ."*

In the Water For People case, their measurement has evolved over time from reporting coverage or access figures to institutional composite 'levels of service' indicators that include access, affordability, reliability, quantity, quality, and distance. Although such data was not available in 2013 when work in the district began, Water For People's 2019 data showed improvements or sustained high and intermediate levels of services across the district.

In the case of RANO WASH, baseline data collection in 2018 used the updated WHO/ JMP indicators associated with basic or safely managed services. The service delivery gains reported above refer to the supply of drinking water by private companies to both household taps and shared connections, which per RANO WASH, meet the safely managed criteria.

4.2 Analysis of systems strengthening

After confirming that there were, in fact, positive changes to service delivery outcomes over time, the research then focused on what aspects of the system that supports these outcomes had been strengthened or changed and the main reasons for why and how the changes occurred. This was done by analysing changes to the WASH system actors' behaviours and subsequent changes in WASH factor performance.

Targeted actors

Since each Agenda for Change member operates in different socioeconomic contexts and specific WASH sub – systems, it is not surprising that in each case they worked with different actors to stimulate them to change their behaviours. Table 3 summarises these differences in actors by case⁸.

Member name	National government	Sub – national government	Local government	Service providers
WaterSHED	Ministry of Interior National Department of Training	Provincial trainers	Commune councilors	Sanitation enterprises
Water For People	The national regulator for water and sanitation services (SUNASS)	Regional office of Ministry of Housing, Construction and Sanitation in Cajamarca	District of Asuncion elected officials and technical staff	Community – based water operators

⁸ These are the main actors in the cases analysed, but each member works with other actors as well.

RANO WASH	Ministry of WASH	Regional directorate for Water, Sanitation, and Hygiene in Atsinanana	Atsinanana mayors	Private water operators
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Table 3: Summary of public and private partners in the cases

All three cases exhibit good practice examples of working at multiple levels of the water or sanitation 'system.' This is a key tenet of systems strengthening as it recognizes the interrelated nature of factors and actor behaviors that are required to be in place, not only at the level at which services are delivered (i.e., the water supply scheme run by the new private operator in Atsinanana in Madagascar), but also with sub-national and national actors responsible for financing, policy, or operational guidelines. Examples include the following:

- In Madagascar, the Ministry of WASH defines the terms and conditions of Public Private Partnership (PPP) contracts in Madagascar that are then operationalized at local and sub- national levels.
- In Cambodia, the National Department of Training conducts leadership training for councilors to promote sanitation in their jurisdictions.
- Or in Perú, the deconcentrated office of the national regulator (SUNASS) supports the dissemination of updated guidelines to review and adjust tariffs at the local government level.

All three cases also included service providers as key actors in the targeted systems, but the exact nature of those service providers varied from context to context.

Factors addressed

Each case prioritised factors that had changed over time, had made contributions to improved service delivery outcomes, and could be at least partially linked to members' activities. All three examples of system strengthening included interventions to improve skills and capacities, whether for promoting sanitation in the case of Cambodia, or procuring and managing a delegated contract in Madagascar, to reviewing and setting sustainable tariffs in Perú. Two of the three cases explicitly targeted financing factors, with Water For People advocating for increased public finance for capital expenditure for unserved households and providing skills and information to increase operational expenditure, whereas RANO WASH targeted private investment into water infrastructure under private management. Table 4 summarises the factor performance changes resulting from local actor behaviour changes across the three cases.

Case	Building block	Factor analyzed	Performance change
	Service delivery	Product	More affordable product available in more
Cambodia – rural sanitation	infrastructure Institutional	development Leadership skills	places Better leadership skills
rurai sanitation	arrangements & coordination	Information about sanitation	Better, more persuasive, and more accessible information about toilets
	Planning	Planning	Better quality, quantity, and more inclusive planning information
	Finance	Finance	More finance available for capex and includes households without access
Perú – rural			More finance available for opex
water	Institutional arrangements & coordination	Information	Service providers and communities have better information on how and why to calculate tariffs
		Skills	Better quality and quantity of technical assistance to service providers

			Better quality of operations and maintenance of service providers
	Service delivery infrastructure	Management models	Greater diversity and quantity of service providers
Madagascar - Private sector	Finance	Finance	More finance available for water infrastructure
managed rural water	Institutional arrangements & coordination	Information	Customers have more information on the benefits of paying for water services

Table 4: Summary of factor performance changes

Scale

Although entry points varied, all three cases demonstrated working at multiple administrative levels, or in some cases, across administrative levels. In addition, the cases exhibit different approaches to scale, from piloting an intervention at district level and scaling "up" to sub – national or national levels, to taking an entry point at national or sub – national and "scaling down." Scale can be qualified in different ways⁹, but the key point is understanding the nature of decentralization in each context and the abilities and incentives of public and private actors to scale those changes supported by a member or change agent.

In the WaterSHED case, the first entry point was working with small enterprises who were not bound to any administrative area, although specific districts were assessed for monitoring and evaluation purposes. However, to sustain and scale the results achieved working with private sanitation companies, WaterSHED's strategy pivoted to supporting local government officials to improve their leadership and sanitation promotion skills about halfway through the case study period. This eventually led to working with two national government institutions, the Ministry of Interior, and the National Department of Training, to embed leadership training in their own processes and institutions.

Similar to WaterSHED, the Water For People case also demonstrated an experience of working at the local, or district level, as a means to model an approach to universal and sustained water services. Having reached universal services at this unit of scale, Water For People attempted to use this "demonstration district" to persuade national government to adopt or modify the approach and apply it at scale. However, after several years of central government turnover and an evolving sector policy and financing strategy, Water For People pivoted to working more closely with sub – national, or regional, governments. This 'expansion' is not only being driven by the ambition to scale up its approach but also to test whether the regional government is interested and able to take on the role Water For People has played in the pilot districts of planning for universal services, cost – sharing last mile service delivery, and providing ongoing technical support to the district WASH offices.

⁹ Even though the absolute scale of intervention might be (very) small, for example the intervention district of Water For People in Perú is only one district of 1,869 in the country and with a rural population of just under 11,000 people, it represents the appropriate unit of scale given the administrative set up. In this case, the experiences from one district are being 'scaled up' to the regional level, thereby leveraging the system strengthening lessons and outcomes.

RANO WASH, by contrast, has been simultaneously working at national, sub – national, and local government levels since it began. This is both a conscious strategy choice in the private water operator workstream and responds to an operating context of limited decentralisation in practice. Box 1 elaborates further on this example.

Box 1: Working simultaneously at multiple levels of government delivers results in Madagascar

To test a management model that allowed for private operator investment under the 'co-finance, build, manage' model promoted by RANO WASH, they first had to work with the Ministry of WASH (MoWASH) to adopt their existing contracts and procedures. RANO WASH then conducted a series of trainings for the regional representatives of MoWASH and selected communes to improve their ability to procure and manage delegated water systems. Once contracts had been tendered and a private water operator has been selected, RANO WASH continues to provide follow up to enable the various contract approvals at sub – national and national levels. RANO WASH has demonstrated that working simultaneously at both levels is feasible and delivers results, particularly in the context of a service delivery option that requires not just approvals at multiple administrative levels, but the skills and information to manage a more complex service delivery arrangement.

Ownership

An analysis of ownership included the various indicators or information that suggested a private or public partner had the incentive and capacity to continue the change stimulated by the Agenda for Change member over time. This area of the analysis revealed substantive, positive indications that individual actors across the cases were willing and able to sustain the change, with a few important exceptions.

WaterSHED had been subject to many external evaluations over its lifetime, including ex – post ones, which offer interesting insights into not only the potential for sustained behaviour change, but whether enterprises continued to supply toilets. A 2020 independent assessment of the long-term viability of the sanitation enterprises WaterSHED supported concluded that "*WaterSHED's withdrawal...is unlikely to impact the sustainability of these sanitation enterprises*," as these enterprises had fully adopted the new product and business model for themselves and were largely able to finance and operate their businesses independently. Although, this is subject to enterprise-level factors, such as intense competition, which might damage a firm's viability but would not jeopardise the sustainability of supply for consumers. Less positive ownership was found in the sales agent behaviour change, which is detailed in Box 2 and led to the strategy pivot of supporting national government to provide leadership and promotion skills to local councillors.

Box 2: Weak ownership of sales agent model leads to strategy pivot in Cambodia

WaterSHED initially trained and linked sales agents to sanitation enterprises. However, although sales agents themselves expressed motivation, some also felt that despite the training they had received, they lacked the confidence and skills to successfully run sales events and do door-to-door promotion of latrines without WaterSHED staff present. An external evaluation found that in part thanks to incentive-based payments to field staff, WaterSHED had gradually taken on more and more of what should have been sales agents' roles. WaterSHED also observed that enterprises struggled to recruit, train, and manage a rural salesforce, and that the enterprises it worked with were heavily dependent on WaterSHED staff to play this role. WaterSHED recognised these negative issues, pulled back from the sales and marketing roles, and pivoted to supporting local councillors to deliver sanitation promotion messages.

Water For People's work in Asunción, Perú demonstrated high levels of ownership across all behaviour changes, from district and regional governments investing in collecting information on unserved households, to allocating finance to extend coverage to unserved households, to providing ongoing technical support for tariff calculation and troubleshooting operations and maintenance to service providers. Box 3 reflects more on the depth of these ownership changes when compared to regional or international estimatesⁱⁱⁱ.

Box 3: Comparing key performance indicators shows depth of ownership in $\ensuremath{\mathsf{Per}}\xspace$

Several of the indicators analysed for ownership in Perú are impressive but stand out even more when compared to other regional or international figures. For example, one of the key behaviour changes targeted by Water For People was investment in personnel and operating costs of a district WASH office. From a baseline investment of approx. USD 15,000 in 2013, over eight years, the government increased its investment fourfold, resulting in a budget of over USD 70,000 by 2020. This investment allows for four WASH professionals, which is significantly greater than the regional average of one person per district office. When averaged against district populations, this amounts to finance invested in providing ongoing support for community-based management of roughly USD 4 per capita per year, which compares favourably with the findings from other case studies (Smits et al; 2011).

The RANO WASH case found mixed levels of ownership across its public and private partners. For example, private water operators invested on average 13% of infrastructure costs, which is a small amount in absolute terms, but significant when considered as a novel approach to infrastructure financing in a highly resource constrained environment. However, some of the other key behaviour changes at the private operator level, such as successfully marketing and installing connections, had less evidence of ownership.

Resilience

In general, this was the weakest area assessed across the three cases, with some notable exceptions. In contrast to ownership, which looked at the likelihood that the individual actor or partner could, and would, continue to do what they had started doing as result of a members' support, the resilience of changes advocated for or supported by members rely on other actors doing things differently in most cases. Box 4 provides an example from the RANO WASH case, in which the good progress and potential sustainability of individual enterprises are reliant on other actors and factors in the system.

challenged by resilience of other factors and actor behaviours

Box 4: An innovative management model

This research confirmed that by addressing weaknesses in key factors like management models, information, and finance, RANO WASH contributed to increased service delivery through an innovation in management models and contracting. However, for a private operator to sustain services over time there must be customers who are willing to pay for the services, a service authority who is able to oversee the contract, access to technical support, and a supportive national framework for the sector. The sustainability and scale of service delivery by newly established private operators will continue to be influenced by actor behaviours and the performance of other factors across these critical areas.

There are important nuances in considering

resilience, such as whether the support from an Agenda for Change member only needs to happen once to instigate wider changes or is an ongoing intervention that will need to occur

Box 5: Who will do and who will pay for what members do – towards more resilient systems in Cambodia and Perú

Both WaterSHED and Water For People, operating in different contexts, provided examples of trying to 'work themselves out of a job,' by identifying other actors who could do what they were doing. For example, WaterSHED worked since 2012 to embed the leadership training in the National Development of Training. Meanwhile, Water For People is currently testing how regional government partners can adopt the roles it has played during the pilot experiences to persuade local governments to collect information on unserved households, allocate finance to extend services, and provide ongoing technical assistance or mentoring to district WASH personnel. Only time will tell if these system-strengthening efforts can be sustained after the member withdraws.

on a regular basis. For example, the product design support provided by WaterSHED likely does not need to happen again in the near term as service levels have reached relatively high levels and constraints to remaining users are unlikely to be solved with a new product design. Similarly, the technical assistance provided to the Ministry of WASH in Madagascar to adopt the modified contract is unlikely to need further input. However, interventions such as training, or providing information to local or sub – national government officials who rotate with election cycles, will need to be provided on an on-going basis. Box 5 synthesizes the experience of both WaterSHED and Water For People to 'replace themselves' so that the gains made in system strengthening are not eroded when their support ends, whether to train government officials in leadership skills, as in the Cambodia case, or advocating for districts to plan for and finance universal access, as in the case of Perú.

LESSONS ON SYSTEMS STRENGTHENING APPROACHES

System strengthening interventions can contribute to improvements in service delivery outcomes, but the extent of change, the scale at which these changes occurred, and the likely long-term resilience of such changes – as assessed by the degree of 'ownership' on the part of permanent system actors – can vary and is influenced by several key factors, including operating context, change agent financing conditions, and the ability to adopt adaptive management approaches.

The goal of this research was to explore the links between an Agenda for Change members' activities with changes in the WASH system and, ultimately, service delivery outcomes. Simply put, can efforts to strengthen a system contribute to improved outcomes? In all three cases of system strengthening, from rural sanitation in Cambodia, to rural water in northern Perú, to privately supplied water in Madagascar, there was evidence of members' system strengthening activities leading to certain changes in the WASH system, which contributed to increases in service delivery.

Based on the analysis of these three different cases, which varied in focus and context, but shared common goals of improving service delivery through system strengthening, several patterns and lessons can be identified. These relate both to the strategies adopted by the different organisations – *how* they have approached system strengthening to achieve positive change – and the conditions that influence the way in which they work.

Collective action with a focus on permanent system actors is a foundational principle of system strengthening efforts. Across all three cases, the research found efforts to work collectively with permanent system actors – both government agencies and private sector entities - to support them in strengthening the way they work and to engender long-term, scaled up behaviours changes that could result in improvements to water or sanitation services. For both WaterSHED and Water For People, there was an explicit strategy to work principally with such permanent actors, whereas the RANO WASH project, which is 'collective action by design' - in that three members are formally implementing a project together - was the only case of explicit collective action among members. Otherwise, engagement with other development partners was more incidental (and in the case of Perú, limited by the relative absence of such partners).

Systems strengthening approaches vary depending on the operating context and implementation strategies adopted. Broader contextual factors such as the socio-economic status of a country, the presence and strength of government (sector) institutions, and the capacity of local private sector actors have an important influence on the likely success of system-strengthening efforts. Figure 4 below plots the relative location of the three case studies along the same axis as presented in Figure 1 and illustrates the relative challenges in context facing the different Agenda for Change members, as well as the different approaches taken and varied member characteristics, such as timeframe and funding sources and flexibility.

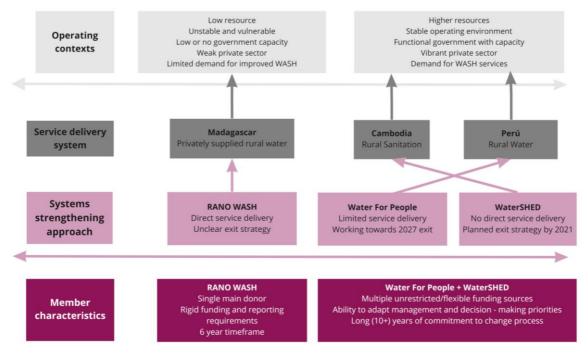


Figure 4: Spectrum of contexts and cases

The RANO-WASH program in Madagascar faces the most difficult operating environment and probably the least developed sector in terms of institutional arrangements, regulation, and certainly public financing. In addition, the focus of RANO-WASH's system strengthening efforts on private equity investment in rural water, represents a very significant – and questionable – ambition of establishing private water operators in a country with over 70% of the population living below the poverty line and very limited household income to pay regular water tariffs. At the other end of the spectrum, Water For People's work in Perú is a case of an operating environment where there are stable sector policies and institutions with some capacity, the potential to unlock relatively high levels of public funding, and a sector regulator that can support improved service delivery going forward. Even in a relatively more stable operating environment, Water For People engaged in limited service delivery activities to demonstrate a 'proof of concept' of reaching universal services. Whilst aspects of the sector in Cambodia remain fragmented and weak, there is a vibrant private sector which, when provided with the right incentives and potential markets, can respond positively. As Figure 4 shows, WaterSHED's 'hands off' systems strengthening approach of no direct service delivery relied on enabling and incentivising public actors at different levels and private enterprises to support and deliver services, rather than do so themselves.

Whilst all contexts are challenging in different respects, some present much more favourable conditions for system strengthening interventions that are likely to be adopted over time and can be sustained at scale by strong permanent system actors. This is not to say that system strengthening in a context such as rural Madagascar is not possible, rather

that it faces many more inherent challenges which may in turn drive change agent strategies and behaviours.

The source and flexibility of funding and autonomy in management decision-making are key factors that influenced the degree of success in system strengthening. Two of the three cases had diverse and flexible funding sources allowing for responsive reaction in the face of a complex, adapting system, and indeed resulted in major re-calibrations of approaches. Whereas the third (RANO-WASH) was much more reliant on a single donor with relatively rigid reporting and funding requirements and afforded less latitude for making (quick) changes in response to evolving system dynamics. The ability to adapt, expand, or cease activities – often referred to as 'adaptive management' is another important characteristic of system strengthening approaches. To change course or expand efforts in a particular set of interventions, however, a change agent needs to know both what is working and what is not and have the 'license to operate' (i.e., flexibility and autonomy in decision-making) from its funders to change tactics if needed.

Pathways to scale are not prescriptive and often require lesson-learning through failure to determine the most appropriate route. All three cases ended up with different pathways in attempting to scale up interventions and to achieve system strengthening at different institutional levels. Both WaterSHED and Water For People started with the same entry point of working directly at the 'district' level (with commune councillors and municipal politicians and technical staff respectively). However, in both cases the strategy for scaling up evolved over time after poor initial results, with Water For People pivoting to a subnational government agency after attempting to work with sector agencies at national level. And WaterSHED worked with multiple government agencies to scale and sustain the results from their direct leadership training of commune councillors. RANO-WASH worked at all three levels simultaneously in an explicit recognition of the inter-linkages across the water system.

The time required to achieve systems strengthening outcomes, which in turn can result in service delivery improvements, was shown to require at least a decade or more in all three cases. This lesson resonates with other experiences in system strengthening and is important to highlight in the face of 'impatient' donors who expect to see change within the duration of a conventional three-to-five-year funding cycle, common to many global development partner programs^{iv}. A decade appears to be the 'best case' scenario, in contexts with medium to high sector maturity, as well as flexible funding and adaptable implementers. In the case of WaterSHED's work in Cambodia, it took 12 years with an explicit aim of leaving that was set from the very beginning of their work. Water For People has been active for around eight years in Asuncion, Perú with the aim of leaving by 2027 or after 13 years. And finally, even though RANO-WASH is only a six-year program, it builds on many years of attempts to promote PPP models in Madagascar, including by the same development partners.

ⁱ See especially A. Miehlbradt, R. Shah, H. Posthumus, and A. Kessler, (2020), A Pragmatic Approach to Assessing System Change: How to put it into practice; J. Lomax, (2020), The antidote to systemic change frameworks: six practical steps to assess systemic change (and improve your strategy); R. Shah, (2020), 'Is the "antidote" for MSD?', Available at:https://www.springfieldcentre.com/unpicking-system-change/.

ⁱⁱ Pedi, Sophanna, Sophea, and Jenkins, 2014, 'Rural Consumer Sanitation Adoption Study: An analysis of rural consumers in the emerging sanitation market in Cambodia'.

ⁱⁱⁱ Smits, Stef, Jeske Verhoeven, Patrick Moriarty, Catarina Fonseca, and Harold Lockwood. 2011. 'Arrangements and Cost of Providing Support to Rural Water Service Providers'. Working Paper 5. The Hague, The Netherlands: IRC WASHCost Project.

^{iv} Huston, A., P. Moriarty, and H. Lockwood. 2019. 'All Systems Go! Background Note for the WASH Systems Symposium.' The Hague, The Netherlands: IRC. https://www.ircwash.org/sites/default/files/084-201910background_symposium_extended.pdf.