

Professionalising rural water services - a response to the sustainability challenge

Community management has long been established as the principal service delivery model for provision of water to rural populations in the developing world; it is also still common in some developed countries, including the USA. This model has brought many advantages over previous more centralised approaches, but it also has limitations and poor sustainability or 'slippage' - as in the slipping backwards from a previous level of service to a lesser type of service - has long been a serious challenge that few countries have successfully managed to address in the rush to increase coverage. Other service delivery models have been developed more recently based on delegated management, particularly for rural growth centres and small towns. A recent multi-country study carried out as part of the Sustainable Services at Scale (Triple-S) learning initiative looks at the evidence for greater 'professionalisation' of rural water provision as a way of improving performance.

The sustainability challenge

Major advances have been made in providing water infrastructure for rural populations in the last two to three decades. The Joint Monitoring Program indicates that some 723 million new rural inhabitants have gained access to an improved source of drinking water between 1990 and 2008 (WHO/UNICEF, 2010). Despite this, there is still failure to find durable solutions in meeting the needs of all rural poor people for safe, reliable domestic water. There is concern that this lack of sustainability is a threat to achieving WASH targets, not only in Africa, but also in a range of countries from as far afield as Central America to Asia. It is increasingly recognised that coverage figures do not necessarily equate to real access in terms of a reliable and continuous service. Surveys and figures vary from country to country, but it appears that on average

somewhere between 30 to 40% of rural systems are not working at all, or are working at far below optimal design levels. Failure rates have been particularly high for hand-pump based technologies in sub-Saharan Africa (RWSN, 2009 and Taylor, 2009), but for other technologies and in other countries the picture has also been disappointing.

Community management has been the predominant approach in rural water service provision over the last three decades. Other service delivery models have been developed and experimented with, including public and private sector arrangements. These are typically put in place after construction of a system and involve the delegation of operation, maintenance, bill collection and administrative tasks to a local private sector company or individual. But it is community management that has been formally adopted as the predominant policy in most developing countries, in spite of the fact that in many cases this approach still leaves the community, and especially the water committee, isolated once the infrastructure is in place and the programme implementers disappear.

In part this situation stems from underlying structural problems such as lack of capacity at local level to support communities and poorly coordinated development partner implementation programmes, whose agendas are not always in alignment with those of national government. Both development partner and government investment programmes have tended to focus on the construction of new water supply systems, without taking into account the long-term requirements for maintaining a service, including support for communities. Finally, too little is understood about the real costs of providing such services, including rehabilitation, asset replacement and indirect support costs.

Key findings

There is a growing trend towards professionalisation of both service provision and service providers, including the emergence of different delegated management arrangements, especially for small towns or rural growth centres.

Even within community-management approaches there is an increasing sophistication or professionalisation of options, based on out-sourcing of operation and administrative functions.

Some of the key building blocks of this improved professionalisation include:

- Clear institutional mandates and separation of functions between service authorities and service providers;
- Institutionalising and adequate financing for post-construction support to communities and capacity support to local government;
- A greater focus on monitoring of services as outcomes, rather than infrastructure outputs, with composite indicators to measure sustainability;
- Improving accountability mechanisms and introducing appropriate regulation for both services provided and service providers.

Triple-S and the multi-country study

Sustainable Services at Scale (Triple-S) is a six-year learning initiative with the overall goal of contributing to an improvement in the sustainability of rural water services¹. As part of the start-up phase, research was conducted in a range of countries alongside a parallel literature review into experiences with rural service provision and aid effectiveness more broadly. The studies took place in thirteen countries², across which it is possible to identify three broad groupings, although the boundaries between them is not always clear. Firstly there are a set of least developed countries with highly aid-dependent WASH sectors (more than 50%); secondly, a middle-group of countries with mixed aid dependency and income levels; and finally, a group of middle to higher income, non-aid dependent water sectors. The selection of a broad range of countries was intentional because it was known that individual cases included interesting examples of rural water service delivery and because these cases represent a continuum of sector maturity across differing coverage levels and decentralisation experiences, where lessons could be shared. The study aims to identify those factors that appear to contribute to, or constrain, the delivery of more sustainable rural water services at scale in different contexts. This briefing note draws on these studies, as well as the papers, discussions and report from an international symposium held in Uganda in April 2010³.

Professionalisation of community management - what does it take?

Despite the challenges and limitations of community management the studies found that in all of the countries, including those at the more developed end of the spectrum such as Thailand and the USA, it is still an important option for addressing the needs of rural populations. Table 1 shows the range of formally sanctioned service models across all of the study countries. However, it is equally apparent that the conventional notion of community management, with communities doing everything themselves through 'volunteerism' is going through a transformation. This transition from a more voluntary approach, in which water committees were formed and left to manage on their own, appears to be driven by a number of factors, including increasing system complexity and demand to move up the service ladder to higher levels and ultimately household connections. One of the unseen drivers of this demand for better services - and therefore more professionalised service provision - appears to be migration and the impact on communities, once migrants return as is the case in Burkina Faso. In more developed middle-income countries such as Sri Lanka, the growing shortage of labour in rural areas means that there are fewer communities willing to work for free, including technical tasks of the water committee (e.g. monitoring water quality, checking for leaks etc.).

Table 1: Taxonomy of formally sanctioned Service Delivery Models for rural areas

Service delivery model options	Ethiopia	Mozambique	Burkina Faso	Uganda	Ghana	Benin	India	Honduras	Sri Lanka	Thailand	Colombia	South Africa	USA
Coverage levels for rural water (%)*	29	26	72	64	74	69	84	77	88	98	73	78	94
Community-based management	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Private delegation (includes NGOs or CBOs)			✓	✓	✓	✓			✓		✓	✓	✓
Local government / municipal provider	✓										✓	✓	✓
Self supply	✓			✓	✓		✓	✓		✓	✓		✓
Association of CBM or user associations			✓					✓					
Urban utility (public, private or mixed)			✓		✓			✓					✓

(*Source, JMP, WHO/UNICEF, 2010)

¹ The sustainable Services at Scale, or Triple-S, initiative is being funded by the Bill and Melinda Gates Foundation and is managed by IRC, International Water and Sanitation Centre from 2009 to 2014. The initiative is based on action research and is being implemented in Ghana and Uganda and with international partners in other countries; for further details see: www.irc.nl/page/45530

² The study countries are: Benin, Burkina Faso, Colombia, Ethiopia, Ghana, Honduras, India (Gujarat, Maharashtra and Tamil Nadu), Mozambique, Sri Lanka, South Africa, Thailand, Uganda and the USA.

³ The International Symposium on Rural Water Services - Providing Rural Water Services at Scale - was held between 13 and 15 April 2010 in Kampala, Uganda. The symposium attracted more than 200 delegates from around the world; papers, proceedings and reports can be found at: www.scalingup.watsan.net/page/298

There is a variation within and across the examples of community management models with gradations, or flexibility, in service provider and operator options. These range from basic Village Level Operation and Maintenance (VLOM) that is still a typical approach in the smallest communities relying on hand-pumps to more professionalised arrangements in which many functions are contracted out to dedicated operators. It is therefore apparent that community management options are increasingly differentiated according to the types of system, either point-sources or small piped systems, with the latter being more professionalised (such as in Uganda, Burkina Faso and Benin). As communities increase in size and tariff-base, and/or where piped networks are the norm, community committees often adopt more specialist functions, such as paying to have a plumber or bill collector. Finally in the larger and complex systems, multi-village schemes or rural growth centres, more professionalised service providers are often contracted to carry out some or all of the operational functions. In these cases, community-management principles can remain in place, even where major functions are out-sourced, as long as roles are clearly delineated between the service authority, the service provider and day-to-day operators. In some cases this range of options is institutionalised (e.g. in Thailand, where there are four different and increasingly sophisticated forms of community management stipulated in Tambon Administrative local government policy), whereas in other cases, such as India, the options are not clearly defined at state level.

Post-construction support and capacity support

In all but a very few cases, there are formally mandated roles for the provision of follow-up support to community-managed systems. In most cases this should be provided at district (local government) or sub-district level, such as is the case in Uganda, Ghana, South Africa, India, Sri Lanka and Thailand. Despite this, in most cases such support has generally not been adopted systematically, as an integral part of community management even where it is a clear part of sector policy; this is normally due to financial and staffing resource constraints. Notable exceptions include Honduras which has had a long-standing programme of support to communities provided through the state agency SANAA, based on the circuit rider model imported from the USA. However, this programme - *Técnico en Operación y Mantenimiento* or TOM - now faces an uncertain future with the transition of authority to the municipalities for support to the communities and away from central government under recent sector reforms. In the USA itself two very well-established organisations provide post-construction support and guidance directly to community management entities - RCAP (Rural Community Assistance Partnership) which grew out of six regional NGOs in the 1960s, and NRWA (National Rural Water Association), which is a membership organisation providing support to community-run water management. Both of these represent 'bottom-up' organisations, but are

Table 2: Generic characteristics of post-construction and capacity support

	Post-construction support to communities and other service providers	Capacity support arrangements to service authorities (local government)
Who provides the support?	<ul style="list-style-type: none"> • Mainly local government staff from district, commune or municipal authorities • Associations of local government (to achieve economies of scale) • Non-governmental organisations and charities • Associations or confederations of Water Committees or Water User Associations • Central government agencies or parastatal entities 	<ul style="list-style-type: none"> • Normally central ministries or agencies responsible for water and provided through deconcentrated offices state or other sub-national level (province, department etc.) • Parastatal institutions • Private sector companies under contract • Large non-governmental organisations and charities • Training, research and academic institutions and universities
Type of support offered	<ul style="list-style-type: none"> • Technical back-stopping and advice • Administrative and financial support • Audit of accounts • Organisational support and conflict resolution • Creating linkages with other state and private sector suppliers • Water quality monitoring • Hygiene promotion • Training and refreshers • Information collection and collation 	<ul style="list-style-type: none"> • Specialised back-stopping and assistance • Development of training resources • Capacity building and training • Quality control and adherence to national norms, standards and guidelines • Planning and management, including financial planning • Information collection and collation for national database

equally well-linked into government (funding) systems both at Federal and State level.

The studies show that the concept of support is becoming more differentiated as decentralisation and sector reforms take root, with a distinction now needed between **post-construction support** provided directly to community-based entities on the one hand (usually, but not always provided by district or local government staff) and the so-called 'support to the supporters' (Lockwood, H. and Smits, S., 2010), or **capacity support** on the other. This latter form of support is qualitatively different from support provided to communities and is typically provided by central ministries or deconcentrated agencies of such ministries operating at regional or provincial level.

The Technical Support Units of the Ministry of Water and Environment in Uganda is a prime example of this type of support. The TSUs were established in 2002 to build capacity and to provide backstopping support to District Local Governments to be able fulfil their new roles and responsibilities in the provision and management of sustainable water supply and sanitation under decentralisation, including the management of conditional grant disbursed by the Ministry of Finance, Planning and Economic Development. These units are responsible to provide guidance and support to local governments on a demand-driven basis and to facilitate the building of local government capacity to handle water and sanitation development. There are eight TSUs (based on the same number of water catchment zones in Uganda), each with staff that includes a Water and Sanitation Specialist, a Community Development Specialist, and a Public Health Specialist. Each of these TSUs is headed by a Focal Point officer or coordinator.

Although there is still a significant gap in support to district level staff who are ultimately responsible to provide support to communities or to monitor delegated contracts, the situation is improving and efforts are under way to better address this area. This type of support mechanism is just being established in Burkina Faso, through a new programme of regional centres to support Commune-level government staff. As well as the TSUs in Uganda, there are relatively well established capacity support programmes in Ghana, Benin and Sri Lanka. In South Africa the deconcentrated offices of the Department for Water and Forestry (DWAF) have set up so-called 'one stop shops' to ensure access to specialist expertise to assist in addressing the local government (as designated Water Service Authorities) to meet key performance targets.

Strength through association

In several of the studies, and particularly reflected in experiences from Latin America, is the notion that communities can professionalise and increase their capacity through joining together in horizontal organisations, often based on the notion of mutual self-support. There are well-documented cases from Honduras, including AHJASA (the Honduran Association of Water Boards) and Municipal water associations that provide economies of scale and support to member organisations. In Burkina Faso another model of self-support has been in operation for some time, which combines small-towns and rural villages into 'Associations of Communes' to provide support and to pool resources, based on the concept of 'mutualisation'. These associations

Box 1: Benin - approaches to delegation

Service Delivery Models in Benin differ between different types of technology. The most common model is still the basic community management approach with a Water User Association (service provider) and a Water Committee (being sub-set of the WUA) acting as the operator. However even for this 'simple' technology there are a number of variations:

- Simple delegation to Water Committee
- Delegation of one supply to one local operator
- Delegation of many similar systems to one local operator
- Delegation to one operator of many different types of systems - geographic or territorial lease

For the more complex piped networks or mechanised boreholes there are other more complex models recognised under the legislation, but some of these are not common:

- Delegation by Commune of the operation to a private operator
- Delegation by Commune through concession contract - for both operation and investment costs
- Delegation by Commune to an operator with no risk (not depending on tariff income to make profit)
- Delegation by Commune to an operator, but with no direct relation with consumers (no recovery of bills)

In practice there are also hybrids of these, mainly focussing on larger villages or small towns. But overall in Benin the delegation process is open tendering with positive discrimination for local entrepreneurs to encourage local private sector development, where national private operators from other cities or capital are excluded.

Adjinacou, C. (2010) Triple-S au Benin (unpublished)

include a range of different technical systems (point sources and networked) and cover a number of different Communes, and have revolving funds as systems are at a different stage of investment life-cycles. In total there are some 41 systems involved with mutualisation across about ten Communes. However, this approach was developed prior to full decentralisation and the establishment of Communes in 2006, and so is currently viewed as ‘illegal’; nonetheless it has yielded positive results and all systems are working well after about ten years of operation.

Beyond community management

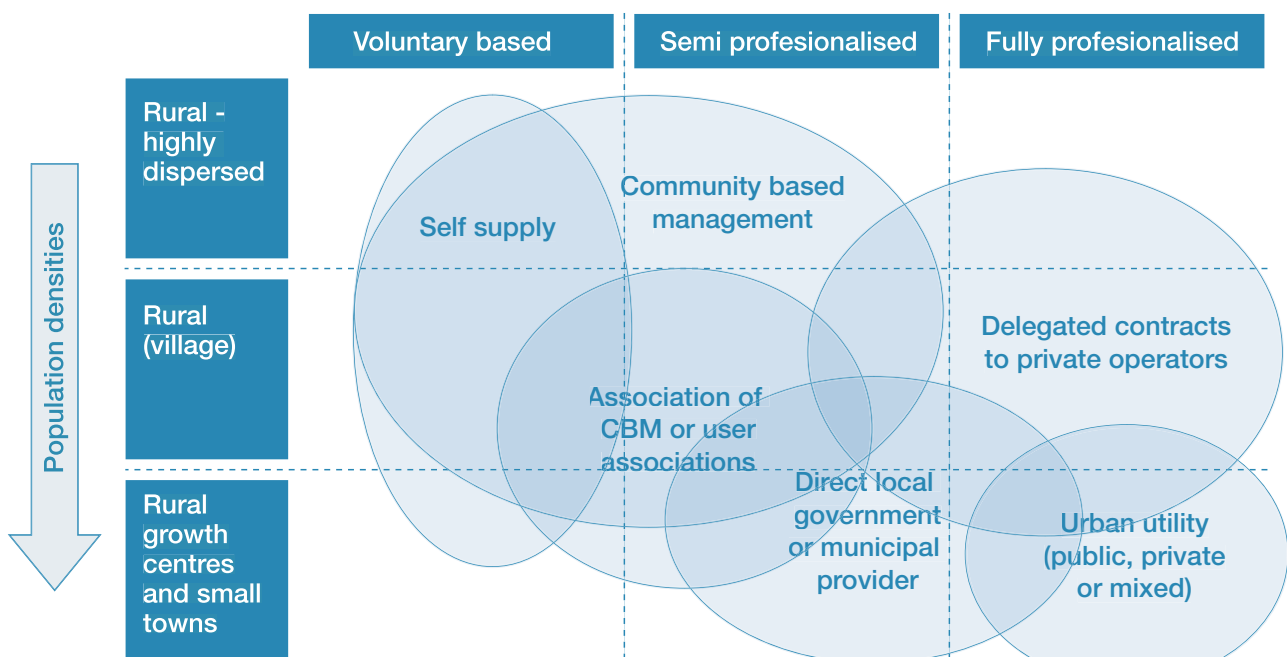
In a significant number of the countries, including some in the lower income and more aid dependent bracket, rural water provision has been taken up by purely delegated management arrangements, in which the shift from professionalised water committees to independent management and operation entities has taken place. There may still be a role for members of the community, but these tend to be transformed to seats on local oversight boards, such as the community water boards in the USA or the District Water and Sanitation Development Boards in Ghana.

One good example is from Uganda where the Directorate for Water Development (DWD) - an agency of the Ministry of Water and Environment - has been piloting and then expanding a model for delegated operation and maintenance of small town or rural growth centre water supply systems using local private sector firms since 2000. These operation and maintenance contracts have been typically short in nature (a three-year

rolling contract arrangement) and place minimal requirements for capital investment or system expansion on the operator. The local district government acts as a ‘water authority’ and signs and supervises the contracts with the private operators, with DWD playing a technical advisory and support role through its regional TSUs. In 2005, the DWD started work with the Global Partnership on Output-based Aid (GPOBA) to make the contracting conditions more attractive to local private sector operators; today 72 rural growth centre systems are being run by private operators, representing some 8.5% of the national total (Azuba et al, 2010). Another country which has developed alternative approaches to managing service delivery is Benin, which has a range of models in place for delegation from water user associations to operators, as well as directly between the Commune (local government) and private operators (see box 1); many of these options are based on French water sector experience. In some states in India (e.g. Maharashtra) and in Sri Lanka, it is common for the out-sourcing of functions to be made to local NGOs or even CBOs that are not necessarily related to the Water Committee or Village Committees and which act, to all intents and purposes, as private contractors.

Although there are a number of common models across all of the 13 country case studies, it is clear that in reality there are also variants within most of these categories, meaning that any kind of global taxonomy is only partially useful. One trend which is clear is that the move towards professionalisation is associated with increased population densities and demand for higher service levels as represented in figure 1 below.

Figure 1: Trend towards professionalization of service delivery models



This increasing sophistication or ‘maturity’ in the types of the community-based management appears to be related to, or proportional with, coverage levels and socio-economic development more generally. Put simply, countries such as Ethiopia and Mozambique which are still struggling with very low levels of coverage have more basic forms of community management and fewer formally sanctioned types of other models, than other countries where coverage has reached much higher levels, such as Colombia, Thailand, South Africa and the USA. In Latin American countries there has been an emphasis on professionalising the existing community structures through an institutionalised system of training and capacity building of committees themselves. Whereas in South Asia, it appears a different route has been taken by supporting delegation from village committees to specialist NGOs and CBOs, as well as the local private sector, to carry out service provision and operation functions.

Providing checks and balances through improved accountability and regulation

A key aspect of the adoption of a more professional or service-oriented approach is the establishment of accountability mechanisms; the ways in which consumers can hold service providers to account for the service they receive. A first key finding from the country studies is that for community-managed rural water supply, much emphasis is placed on the ‘short-arm’ of accountability found in the direct relations between consumers and their respective water committees acting as service providers. There is ample evidence that this link is very vulnerable: there is a high risk of ending up in a vicious circle or poor service delivery, non-payment of tariffs by unhappy customers, and an even further deterioration of services. However, this can still represent a good first step in the process of strengthening accountability. This is typically done during project implementation activities, where rights and obligations of customers and service provider are highlighted. It is also part of various post-construction support mechanisms; for example, in Honduras, where the TOMs of SANAA and other technicians have recently added a module on accountability for their training to water committees.

Recognising the limitations of the short-arm of accountability, there are different ways of establishing the ‘long-arm’ (i.e. indirectly where government assumes (partial) responsibility) the most basic of which is to place regulatory powers with local government. In this case, local authorities have an oversight function, and are responsible for checking on service providers, but without necessarily having a

clearly established service delivery contract in place; this is for example the case in Benin under certain contracting agreements. Explicit contractual agreements between service providers and local government form a second, relatively straightforward arrangement for accountability, in which a contract specifies the services that need to be provided and against which performance conditions can be measured. This arrangement is found in Burkina Faso where each Commune should have contracts in place with an operator and in South Africa where each Water Service Authority should have a service contract with a Water Service Provider.

The final, and most comprehensive approach, is the establishment of independent regulators. Three of the studied countries have such independent regulators: Colombia, Honduras and Mozambique. The establishment of independent regulators finds its roots in regulation of privatised urban service providers, particularly in Latin America. And in fact, many of the first efforts by these regulators have gone into developing regulation and enforcement mechanisms for urban operators. Regulation for rural areas is only now coming into the picture with Colombia probably being the most advanced in this respect. In Mozambique the operational regulatory footprint has not yet reached rural service provision and is even more nascent. One of the main problems associated with this formal regulation is the tendency to over-regulate, by transferring in-appropriate and overly punitive urban criteria to rural contexts. In Colombia the result has been that many rural service providers have shied away from registering with the regulator for fear of being fined, this despite the potential access to new sources of funding and other support that such registration would bring.

Building blocks for professionalisation

A number of important building blocks appear to be necessary for, and supportive of, the greater professionalisation of service delivery in rural contexts. This process takes place in different ways and at different speeds, depending on the complexity of the systems, the levels of service and the completeness of the legislation and institutional arrangements. Underlying all of these elements is the need for commonly agreed - and nationally sanctioned - models for service delivery at national level and the levels of service that should be provided. The main building blocks can be summarised as follows:

- **Clear institutional responsibilities and a separation of functions:** in the more successful cases, such as Uganda, Colombia, South Africa and Thailand, roles and functions have been clearly delineated and as part of the decentralisation and

reform processes there has been a clear separation between institutions responsible to ensure service provision (the service authority - commonly the district or local government) and service providers (commonly the water and sanitation committees, but also may include municipal government where this is done directly) and operators who may be individuals or private entities hired to carry out day-to-day tasks. In cases where these delineations are unclear (such as Ghana where even though the District Assemblies are formally responsible for the planning, decision-making and delivery of water services, the same functions are sometimes performed by other actors such as regional offices of the Community Water and Sanitation Agency) or where legislation is incomplete (such as in Ethiopia, where water and sanitation committees do not yet have formal or legal status), attempts to professionalise service delivery can be severely undermined.

- **“Institutionalisation and adequate financing for post-construction and capacity support:** this relates most particularly to the professionalisation of community management models through continuous back-stopping and support. However, it is also relevant to the needs of the local government service authorities which may be (newly) mandated to guarantee service provision and whose staff may be responsible to manage and monitor lease contracts or other forms of delegated agreements. This has been the case in Burkina Faso where many of the newly formed Communes lack the relevant capacity, knowledge and experience to manage more complex contracts. The financing requirements for these types of support functions are often not fully accounted for in planning processes, by development partners nor central government.

- **Monitoring of services as outcomes, rather than infrastructure outputs:** in most cases monitoring and information management systems are weak, under-funded and tend to focus on implementation or inputs and outputs (e.g. number of systems constructed and number of people served), rather than on the delivery of services or outcomes (e.g. reliability and continuity of a water service). Proxy indicators are often used, and the most common one found is functionality (i.e. the percentage of water point functional at any given time), which is the case in Uganda, Benin and Burkina Faso. This indicator may serve well for point source systems such as hand-pumps or standpipes. However, for small piped systems such an indicator may not be as useful, particularly for gravity-fed, piped schemes that rarely stop functioning completely. Professionalisation of service delivery requires that performance levels are known and measured, even in basic ways, and therefore composite indicators, such as those developed in Honduras and Bolivia may provide a more promising measure of sustainability.
- **Appropriate accountability and regulation mechanisms:** as service provision and service providers become more professionalised, there is a parallel need to improve accountability mechanisms and ultimately to regulate. There is scope to improve accountability in the context of community management models, by integrating this into long-term support functions and in improving the capacity of local governments, acting as service authorities. Introducing formal regulation may be the ultimate objective, but care is needed to make sure that any regulatory frameworks are relevant and appropriate to the realities of small-scale private providers; otherwise these may ultimately be counter-productive as the case of Colombia illustrates.

Meeting the costs of professionalisation

The evidence from the country studies shows a trend towards greater professionalisation, both of community management and more commercially orientated service delivery models. Meeting the costs of the building blocks which can support this transition will be the challenge, in an environment where sector funding is already inadequate in absolute terms. In countries still struggling with very low levels of rural water coverage - such as Ethiopia and Mozambique with 29% and 26% respectively - the emphasis will continue to be on initial capital investment (capital expenditure or CapEx⁴). In countries with relatively high coverage levels such as Colombia, Thailand, Sri Lanka and the USA, the emphasis is on repairs, upgrading and eventual asset replacement (or capital maintenance costs, CapManEx).

However, the type of costs most closely associated with the building blocks highlighted in this study - improving legislation, providing post-construction support, monitoring and oversight, regulation and so forth - mainly relate to direct and indirect costs, which historically have not been well financed. Also these are often linked to broader public administration functions and it is difficult to single-out or isolate water sector staff in order to address these needs. But if we are to support the transition of the rural water sector to a more mature and service-oriented perspective we should all be concerned with meeting these costs and building professionalism. Triple-S will continue to research and test aspects of improved service delivery models in Ghana and Uganda and to advocate national government, development partners and other sector organisations about the importance of supporting these building blocks as part of the move from a project-based to a service delivery approach.

⁴ Cost categories referred to are as defined by the WASHCost project; for further details see: <http://www.washcost.info/page/196>

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This document is an output of the Triple-S initiative and represents a summary of some of the findings from the thirteen country case studies that were commissioned to investigate sustainable rural water services at scale.

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