Providing Sustainable Water Services at Scale

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International Symposium on Rural Water Services

Kampala 13th to 15th April, 2010

Executive summary

For the past two to three decades we have been relatively successful at providing new rural water infrastructure – building the physical systems – and driving increased coverage levels. However, despite this we have largely failed to find durable solutions in meeting the needs of the rural poor for safe, reliable domestic water. Rural people face continuing and unacceptable problems with systems that fail prematurely, leading to wasted resources and false expectations. Figures vary, but studies from different countries indicate that somewhere between 30% and 40% of systems either do not function at all, or operate significantly below design expectations.

Constructing physical systems is an obvious requirement, but is just one part of a much more complex set of actions that are required to provide a truly sustainable service. Increasing coverage does not equate to increased access. We now may have finally reached a tipping point on the part of national governments and development partners in recognising the scale of the problem associated with poor sustainability, which is a real threat to reaching the WASH Millennium Development Goals. The discourse on sustainability has shifted from a focus on one or two individual factors, to the requirement for addressing the underlying causes in a more holistic way.

This paper has been written in preparation for a major international symposium that will focus on precisely this problem – how to provide sustainable rural water services at scale. The paper traces the history of the rural water sector and sets out an analysis suggesting that sustainability must be addressed in a systemic way, requiring actions at many levels beyond the community itself. The paper then sets out a conceptual framework for thinking about rural water, using a principles-based framework which calls for a shift towards service delivery approaches, and away from a system-driven focus.

The paper outlines various research initiatives and studies currently being undertaken by a range of organisations that demonstrate the momentum in the sector towards finding new ways of working. Finally, the paper concludes with a range of topics that will be presented and discussed in the symposium - from service delivery models, to financing for sustainability, governance and harmonisation - inviting participants to come along ready with their own experiences and ideas to enrich the debate.

Sustainability of rural water supply: a hard nut to crack

Undoubtedly major gains have been made in providing water infrastructure for rural populations in the last two to three decades. The Joint Monitoring Program indicates that some 717 million rural inhabitants have gained access to a safe source of drinking water since 1990 (WHO/UNICEF, 2008). Despite this, we have largely failed to find durable solutions in meeting the needs of all rural poor people for safe, reliable domestic water. The statistics for coverage only reflect a static snapshot and provide little indication of the functionality of physical systems, much less the quality or quantity of the service being provided. Figures collated by the Rural Water Supply Network show that, when considering the actual sustainability of services, the number of rural people without proper access to safe water services in Africa in fact actually *grew* from 243 million in 1990 to 272 million in 2006.

There is increasing 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 recognized 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.

We now may have finally reached a tipping point on the part of national governments and development partners in recognising the scale of the problem associated with poor sustainability. Much work has been done to investigate the causes and to find solutions. There have been cases, in which some of these causes have been addressed successfully, but these have often remained isolated and few examples exist where sustainability is addressed at scale. Hence, the discourse on sustainability has shifted from a focus on one or two individual factors, to the requirement for a systemic assessment which can address the underlying causes in a more holistic way.

This international symposium focuses on the provision of sustainable rural water services at scale. It will bring together a range of experiences and case studies to explore many of the complex challenges and some of the emerging solutions that can enable sustainability to be achieved at scale. This background paper aims to set the scene for the symposium, by introducing key concepts and definitions around sustainability, as well as a set of principles for understanding key factors affecting sustainable service delivery at scale. It concludes by providing a background to the various initiatives and research projects behind this symposium and introducing the individual topics in more detail.

Sustainability of rural water supply

A short history of the rural water supply sector

The current situation in the rural sub-sector can be traced back to the 1980s and the International Drinking Water Supply and Sanitation Decade, a UN coordinated effort to provide minimum services to all. The decade marked a shift away from centralised, often engineering-led and supply-driven programmes of the 1960s and 70s. The success of the decade was a massive expansion in coverage. Its failure was that it did not address how to make the increases in access permanent – the problem of sustainability. Implementation of new services was largely through donor and NGO programmes. Governments were generally bypassed in favour of communities and grassroots organisations, a trend that was later compounded by structural adjustment and the hollowing out of government. Many governments were, and remain, lacking in capacity. But in the rush to achieve impact, no real alternative was explored other than to place all responsibility for operation and maintenance onto the community.

By the mid 1990s rural water supply infrastructure was therefore largely provided by a range of non-governmental and often non-national actors, working under the overlapping principles and assumptions of village-level operation and maintenance (VLOM), Demand Responsive Approach (DRA) and community management. As a result, over the last two decades or so it is the **community-based management model** that has emerged as the leading paradigm for providing water to rural communities. Community management has undoubtedly brought many benefits and recent studies indicate that this approach has indeed improved the performance of water supply systems in some cases (Whittington et al 2008). But 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. By and large this approach has failed to achieve the ultimate goal of reliable and sustainable water supply at scale. Much effort has been put into better understanding the reasons for the success and failure of communities, such as supply chains, gender, participation and financial contributions of communities and low-cost technologies. As insight into community management grew the list of possible reasons for success and failure has also grown. Many organisations have strengthened their intervention cycles with communities so that these factors could be addressed and although the quality of some of these intervention processes has improved, these have tended to became less scalable. Much less is understood about the real financial costs of these improved approaches.

The other main management model that emerged in many parts of the world is so-called 'self-supply' which fills the gap where public or formal private sector-led approaches do not reach. This is especially the case in scattered rural communities and where water sources are easily available. In the USA some 14.5 million people are using privately financed systems and large numbers of people in countries such as Viet Nam and Bangladesh invest their own resources in household supply systems (Sutton, 2007). Formally recognising self-supply makes it possible to see the investments made by people themselves and also to direct more limited support to improve these self-help services, which is often needed to ensure the improvement of sources.

The 1990s also saw the beginning of a donor-driven move towards **decentralisation**, with the laudable aim of making services more responsive to users by bringing decision making closer. An important effect of this shift is that it makes the decentralised governance unit the critical building block for rural water service delivery and for many other services. Many problems beset current efforts at decentralisation, including limited capacity, limited transfer of financial resources, lack of oversight and lack of transparent monitoring. However, this concentration of service authority, particularly post-construction functions, at district level, means that a model that works in a district is inherently scalable in a way that one developed in a village cannot be.

At the start of the new millennium growing concerns regarding the short-comings of community-based management (and to a lesser extent self-supply) led to the development of a number of initiatives to provide better support to communities and users. These included examples from Countries as diverse as Ghana (Monitoring Operation and Maintenance model), Nicaragua (Municipal UNOM Promoters) Honduras (the Technician in Operation and Maintenance or TOMs) and Senegal (urban water utilities supplying rural communities). These typically started by looking at what needs to be done to support and maintain water services in the **post construction** period, addressing not only technical tasks, but also administrative, legal, training and other 'software' needs. The outlines of a concept for ensuring long term sustainability started to emerge, under the term 'Institutional Support Mechanisms' (ISMs), coined by USAID's Environmental Health Project (EHP) in the early 2000s (Lockwood, 2002). These models can be classified as follows:

- (National) utilities supporting dispersed rural communities (Gabon, Côte d'Ivoire, and Senegal, Colombia);
- Government agencies and local governments supporting rural communities (Colombia, Honduras, Nicaragua, Uganda);
- Delegated local private sector owner-operator models (Viet Nam, Cambodia, Bangladesh, Paraguay);
- Hand pump maintenance contracts (Burkina Faso, Angola).
- Associations of CBOs providing support to each other (Honduras, Colombia)

Although we have seen some positive change, many organisations (including some donors, international NGOs and smaller 'charity' or philanthropic agencies) still adhere to a project-based way of working and also tend to work around governments. A report issued by the EU Water Initiative, Africa Working Group, shows that despite international calls for greater alignment, more than two-thirds (71%) of all European financing is channelled through projects and programmes, with about a fifth of all aid classified as 'not coordinated' with national government programmes (Fonseca and Diaz, 2008). Consolidated data for NGOs and charity water agencies is not available, but field experience tells us that non-alignment is an even greater challenge for some of these groups.

The policy and legislative environment has already been established in many countries to create space for local government, supported by national government, to play an increasingly central role in coordinating and ensuring rural water services. However, the application of such policies has often been problematic, because of resource constraints, related to partial or stalled decentralisation. At times this has also been constrained by those in central government not wanting to cede real control over resources and decision-making to lower levels.

Understanding the causes of poor sustainability

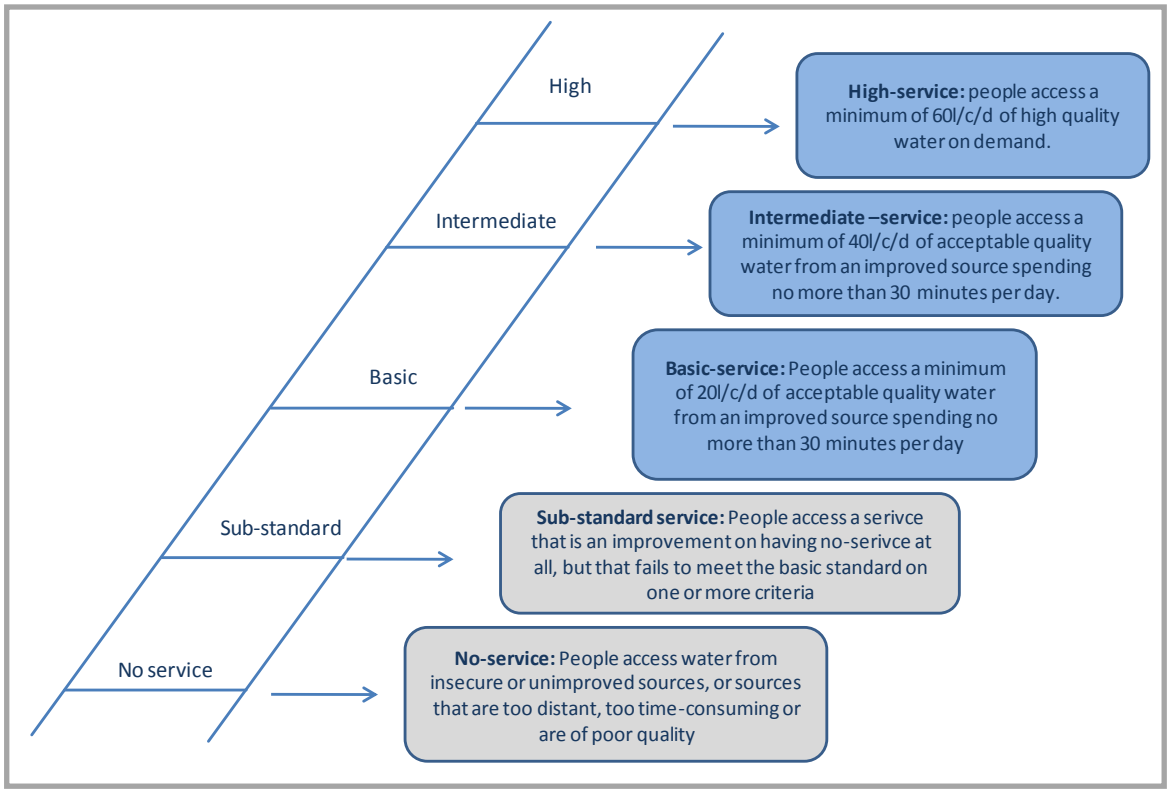
Where does this overview of the history of sustainability leave us? First of all it gives us insight into how sustainability (or the lack thereof) manifests itself. For those who work in the sub-sector, evidence of failed and failing physical infrastructure is easy to find. However, a lack of sustainability is not usually expressed by a 'binary' condition. That is to say water systems, especially piped systems, generally do not fail completely leading to an 'off - on' supply of water. In many cases communities can and do keep systems running, even if this is at very sub-optimal levels. Although total system failure is more common for hand pumps (or systems based on submersible pumping), even here, communities often find ways to keep water flowing, as a recent multi-country study has shown in Bolivia, Ghana and Peru (Ibid, Whittington et al) .

Perhaps more useful than the notion of 'on-off' sustainability is to think in terms of levels of service provided, and the relative increase or reduction in such levels. In India this concept is referred to as 'slippage' – as in the slipping backwards from a previous level of service to a lesser type of service. Figures indicate an 'all India' slippage rate of more than 30%, but with some states showing as many as 60 to 70% of rural facilities as having fallen back to partial coverage or no coverage at all (IRC, 2009). Recent figures from Honduras indicate that some 13% of systems in the country are not functioning and 26% require significant investments to bring them back to optimal levels (Rivera Garay and Godoy Ayestas, 2007). In fact, it is

remarkable that no internationally agreed indicators for measuring "sustainability" or functionality of rural water supply systems exists.

The concept of a 'service ladder' is beneficial in this case to better understand that when we refer to sustainability – or the lack of it – consumers can move up and down a continuum from 'no service' (which is effectively an insecure or unimproved source) to a high-service, where access is on demand at, or very close by, to the household. This service ladder concept is shown in figure 1 below, developed by the WASHCost project of IRC (Moriarty et al 2010).

Figure 1: WASHCost Service Ladder



Secondly, this overview has shown a number of fundamental barriers in the way in which the rural sub-sector has been addressed over the past twenty to thirty years to reaching the aim of sustained water services; these can be summarised as follows:

- A focus of intervention at the level of the community; community management – and its variants such as Demand Responsive Approaches – are all based on interventions at community level, which are inherently un-scalable;
- A continued focus on the construction of new water supply systems rather than investment in sector systems and 'carrying capacity', such as policy development,

monitoring systems, academic and vocational training, post-construction and back-up support;

- A focus of financial investment on initial construction of new water supply systems, rather than taking into account the full life-cycle costs of service delivery, including rehabilitation, asset replacement and indirect support costs; and
- A persistent lack of coordination and harmonisation – often driven by donor and NGO agendas – leading to fragmented policies and implementing practices which result in inefficient use of resources, duplication and a lack of alignment with government policies.

Of course, there are also exogenous factors which can greatly impinge on the level of sustainability or functionality of a water system, including seasonal and long-term changes in local water availability and quality at source and intermittent electrical supplies (where systems rely on this source of power for pumping). However, the underlying trend for both funding and implementing agencies in the past has been one of largely project-based approaches with a focus on physical systems, whilst tending to under-estimate the need to develop the capacity of the sector as a whole.

In view of the above, we feel that the lack of sustainability cannot be reduced to one or more factors of failure. Rather a systematic assessment is required, combined with a range of interventions at all levels that can address the complex set of factors underlying poor sustainability. The next section proposes concepts and principles which enable such an approach to be adopted.

Breaking the cycle of poor sustainability - towards a Service Delivery Approach

The Service Delivery Approach

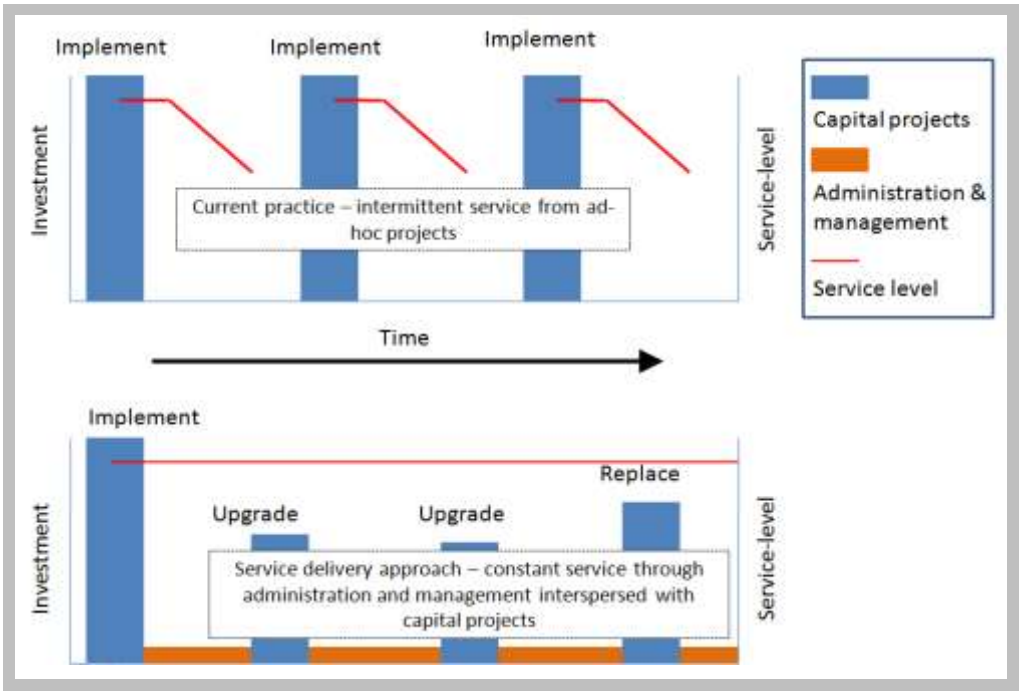
We recognise that the delivery of sustainable rural water services, with access for all, is a complex problem. Providing a service relies on many different factors being in place and working together: 'soft' factors such as skills, behaviours, norms and practices; 'hard' factors such as suitable technologies; availability of finance for capital expenditure; and institutional factors that can provide for long-term support to community systems.

We refer to the **Service Delivery Approach** (SDA) as a concept which addresses all of these elements and is rooted in the need for a shift in focus from the means of service delivery (the water supply infrastructure – the 'system') towards the actual *service* accessed by consumers. The SDA explicitly aims for full coverage within the logical unit for dealing with water services

(that is the *'intermediate level'* – a district, municipality, region or other depending on the context) by planning and working at scale. Secondly, the SDA works on the premise of sustainability of access; once access is achieved it should be maintained through a proper understanding of the full life-cycle costs and institutional support needs. In this context, access to a service is determined by a user's ability to *reliably and affordably* access a given *quantity* of water, of an acceptable *quality,* at a given *distance* from his or her home; this is captured in a defined **service level**.

The differing implications for sustainability between most project approaches and the SDA can be illustrated diagrammatically as in figure 2 below. The top half shows the current reality for millions of rural people - following construction of a new system users have access to a given level of service. The new system initially functions well, but due to lack of support quickly starts to deteriorate until it collapses completely, to be revived at some indeterminate time by the construction of a new system, typically by another agency. The bottom half of the diagram shows the SDA where once a water system has been constructed, the service is maintained indefinitely through a planned process of low intensity administration and management with occasional capital projects for upgrading and eventual replacement.

Figure 2: Water service delivery from the user perspective: repeated disappointment, or a service delivery approach?



Encouragingly, however, there are also now signs of a growing recognition of the need to adopt new approaches to the rural water sector. For example, under the ISM concept in Honduras, the '*Técnico en Operación y Mantenimiento*' (or TOM) programme was an early adopter using a

similar analysis of sustainability as shown in figure 2 above (Rivera and Godoy, 2004). A number of donor agencies, including the World Bank and the Swiss Agency for Development and Cooperation (SDC), international sector agencies such as the Water and Sanitation Program (WSP) and NGOs such as, Water for People and WaterAid and knowledge organisations such as the Rural Water Supply Network and IRC International Water and Sanitation Centre are all starting to look beyond the community management model and examine what may work better.

Within the context of decentralisation (which now includes the majority of developing countries) adopting a service delivery approach also implies the division of functions across three distinct levels. Although the exact nature of these functions and the levels at which they sit will of course vary from place to place, the following schematic generally holds true and is useful when considering the elements of a service:

Figure 3: Differentiating functions within a decentralised context

Box 1: South Africa: A strategic framework for water services

There are few countries with a truly comprehensive approach to service delivery, but South Africa provides us with one such example, with a well defined and holistic framework. Following the new democratic government in 1994 a series of legislation and policies were established which have defines clear roles and responsibilities down to and including the level of the service providers. Coupled with well defined service levels (setting out quantity, quality and distance to service), regulation and fiscal mechanisms, these laws and policies allowed for the establishment of *Water Service Authorities* at municipal level, which hold responsibility for governance and of *Water Service Providers*, responsible for the actual provision of services to consumers, including operation, administration and maintenance functions (de la Harpe, 2003).

Applying the Service Delivery Approach through country specific models

To put the Service Delivery Approach into practice requires a context-specific **Service Delivery Model** relevant to the realities of the country and service area, including the type of rural population, levels of social and economic development and relative strength of the public and private sector amongst other factors. The Service Delivery Model is the '*how to*' of applying the service delivery approach and describes the policy, legal, institutional, financial, governance and normative frameworks that determine what services will be provided to consumers, and how this will be done.

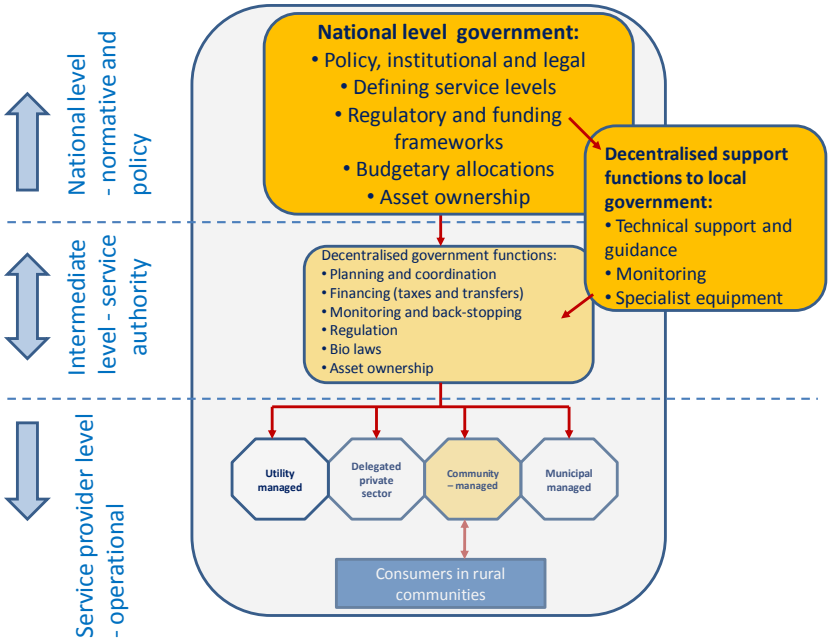
Service delivery models are always country-specific and may include different management arrangements appropriate to the country or local conditions and desired service levels (i.e. self-supply, community, private, utility or often some hybrid of these). As such it is difficult or indeed impossible to conceptualise one 'generic' model, which can be applied universally. However, the value of defining a service delivery model is to highlight the inter-connection between stakeholders, institutional roles, functions and elements that needs to be in place at all levels, from the community up to national level.

Understanding and accepting that interventions which *only* focus at the level of the community are unlikely to ever meaningfully address the causes of poor sustainability is important, precisely because in the past they have tended to 'ignore' upstream requirements. The corollary of this is clearly that support needs to be provided on different fronts and at different levels to achieve meaningful change and to reverse the trend of poor sustainability of water supply systems.

Of course, this is a simplification of the situation on the ground, but there are striking examples that illustrate this point well. In Nicaragua more than 5,000 water and sanitation committees

(or CAPS to give them their Spanish acronym) have been formed as part of NGO and donor programmes over the last two decades or so. However, it is only relatively recently that their legal status – or '*personaría juridica*' – has been revealed to be one based on collective assumptions about the law. There are now moves to pass new legislation, specifically aimed at legalising the CAPS. Figure 4 below illustrates the upward and downward linkages when considering a service delivery model. In this case community management is highlighted, but this situation can also refer to other management approaches, such as delegation to private sector operators which also require support and monitoring. The diagram also shows a linking tier of support between central and intermediate level, which is common in many countries (for example, in Uganda, these are the Technical Support Units which provide support to a grouping of several districts; in Ghana it is the Regional Water and Sanitation Teams).

Figure 4. Generic service delivery model – any management arrangement at the service provider level must be supported by the appropriate institutional, policy and legislative frameworks



Emerging principles

Based on a growing body of experience from a range of organisations over the last five years or more, we have seen the emergence of a number of common lessons or conclusions regarding

the state of rural water provision in the developing world. The most central of these are now gaining recognition and acceptance, including:

- It is ultimately sovereign government both at national and decentralised levels that must drive and lead, through establishing clear sector vision, strategy and policy, as well as the service authority functions at appropriate levels.

- Development partner assistance should support and challenge the lead of government, but not eclipse or fragment it, and must include significant investment in non-infrastructure capacity building to ensure sustainable service delivery.

- Meaningful gains in access to services (and not only increases in coverage) can only be attained through long-term commitment to supporting the sector at all levels, up to and including the ability to develop and adapt policy and legislation, as well as learning.

- The community management model for direct service provision has particular limits and to function well requires some form of structured external support; alternative arrangements, which go beyond volunteerism may be more attractive in the long-term.

- The local private sector has an added-value and can be an important part of direct service provision, but it too requires external support (and in some cases a catalyst for start-up), monitoring and in most cases some form of subsidy, whether direct or indirect.

We recognise that the provision of a water service, as with other approaches in the water sector, is often very context-specific. Culture, history, economy, politics, water resources, topography and demographic aspects all are determining factors in the possible levels of service, the opportunities to provide such a service and to what extent it can be financed sustainably. However, we do know from long experience of a number of important elements that need to be in place and which can lead to more sustainable service delivery.

Translating this knowledge into practice and making it accessible is the challenge. One approach is to establish these known factors or pre-conditions as a set of **guiding principles**. Over the past few years, various principle-based frameworks have been developed in the water sector. Examples of such principle-based frameworks include the EC Guidelines for IWRM (EC, 1998) and their adaptation to IWRM in rural water supply (Visscher et al., 1999). For service delivery, these have been taken further in the scaling up framework (Thematic Group for Scaling Up of Community Management for Rural Water Supply, 2005) and subsequently adapted by Van Koppen et al. (2006 and 2009) with a focus on multiple-use services.

We propose that a set of principles may also be useful for making the transition towards the adoption of a service delivery approach and for strengthening existing service delivery models. Such principles are useful in a number of ways, from providing inspiration and guidance, to use as an analytical framework and for planning interventions to address the underlying factors of poor sustainability. Although there are clearly variations across countries and between regions in many aspects of the water sector and aid dependency, we believe that three major adaptations or strategy areas are needed to bring about an improvement in sustainability and working at scale, these are:

i. **Adopting a Service Delivery Approach**. There must be a shift from projects to services. This means envisaging a service instead of projects (or groups of projects under programmes), in which policy, institutional, planning, financing and governance of the sector all support water services at scale for rural populations indefinitely.

ii. **Supporting a strong learning and adaptive capacity for water service delivery.** This means a sector with the capacity to learn, innovate and adapt to changing circumstances and the demands that are necessary to ensure that service delivery approaches continue to be maintained for rural populations.

iii. **Improving harmonisation and alignment for water service delivery.** This means greater harmonisation of donor efforts at both operational and national levels, as well as better coordination and alignment of these efforts behind government-led strategies for service delivery to rural populations.

Under each of these strategy areas we propose a number of 'principles' for improving policy and practice which, when addressed holistically, we believe can help to mitigate the underlying causes of poor sustainability and promote service provision at scale. The framework is made up of eight principles within the three strategic intervention areas as follows:

i. Adoption of a Service Delivery Approach:

- Policy, legislative and institutional principles
- Financing for sustainability principles
- Planning for sustainability principles
- Transparency and accountability principles

ii. Supporting a learning and adaptive capacity for the sector:

- Awareness and skill principles
- Culture of information sharing and learning principles

iii. Improving alignment and harmonisation for service delivery

- Harmonisation and alignment principles
- Coordination principles

A working draft of the full principles-based framework is provided in Annex 1 at the end of this document.

Knowledge as a tool for addressing poor sustainability

Emerging responses

The growing concern about poor sustainability is reflected in the work of a range of sector organisations seeking to better understand the barriers to sustainable service provision and that question past approaches tending to focus on infrastructure. A number of global initiatives and studies have emerged in recent years that are researching the underlying causes of poor sustainability or functionality in the rural sector and which are trying to formulate sector programmes to address them. Some of these include:

- **Water and Sanitation Program** – a research study to re-assess current rural water supply and sanitation approaches, and investigate a new guiding framework for scaling up sustainable services in rural communities and small towns;
- **World Bank** – a study to evaluate options for small-scale rural private operators, including individuals, as promising alternatives to community-based management for both piped systems and handpumps;
- **IRC, International Water and Sanitation Centre** – two closely related research initiatives, one considering the full life-cycle costs (WASHCost) of delivering water and sanitation services, and a second action-research effort to test guiding principles and models for sustainable rural water services delivered at scale (Triple-S) (http://www.irc.nl/page/101);
- **Rural Water Supply Network** (RWSN)– a global knowledge network for improving rural water technologies and approaches which carries out on-going research under four main 'flagships' including the flagship for sustainable rural water supply (http://www.rwsn.ch/);
- **Thematic Group for Scaling Up Community Management of Rural Water Supply** – a network of sector agencies and practitioners which promotes sustainable services and the improvement of community-managed approaches (http://www.scalingup.watsan.net/).

There are also a wide number of national and local initiatives that seek to improve the way of working in the rural sector. These include the work of the Government of India and WES-Net India on slippage, the sector thematic group on functionality in Uganda, NGO initiatives such as support for district water units in Tanzania, efforts to reach and maintain 100% coverage by Water for People in a number of districts in Bolivia, Honduras and Rwanda.

Support for the rural water sector is changing for the better. The fact that such a range of organisations and initiatives are all now focusing on different aspects of the same challenge is a good indicator that we are moving towards a change in thinking about the rural water sector. National governments are increasingly taking a leading role in defining the vision for the rural sector. Donors are investing in building capacity and are aligning more and more with national priorities. But there is still a long way to go and many aid agencies or charities continue to invest in one-off projects and to ignore the more holistic requirements of a true service.

The Kampala symposium on sustainable services at scale

The impetus for this symposium has come from these various initiatives and from the desire to see real change and to reach the goal of truly sustainable services. By bringing together individuals and organisations with the experience of facing these challenges and of developing innovative solutions, we hope to foster an exchange of views and learning that will add to this momentum for change.

In the symposium, we expect that we will broaden our collective understanding of sustainability and its underlying factors and frameworks. As outlined in this paper, the term sustainability has been understood in different ways in the history of the sector, and yet still no uniform way exists to measure sustainability. Some of the **key note presentations** will highlight ways of better understanding and measuring sustainability and provide frameworks for analysis. The symposium will then go on to examine four key dimensions of sustainable services as scale:

1. **Service delivery models for sustainable rural water services:**
   Community management has been established as the predominant model for the rural sector, but after two decades of experience is it really working and what alternative management arrangements for rural water supply are worth considering (particularly self-supply and private sector delegation)? Moreover can these management options deliver sustainable services without also addressing up-stream policy, legislation and financing frameworks at the same time? We will look at practical examples from a range of countries in Africa, Asia, Latin America and the USA and ask what change processes are needed at sector level, as well as exploring the role of non-governmental actors and the private sector.

2. Financing for sustainable service delivery

Financing is one of the most critical aspects of sustaining a service, especially beyond the initial capital costs of construction. Historically the true costs of providing an indefinite water service have been poorly understood and frequently underestimated, particularly for post-construction support functions, monitoring and the provision of spare parts. Exploring existing and alternative financing mechanisms that can meet these costs will be a key topic of this stream. We will explore issues of common funding pools, direct financing to decentralised levels and innovative solutions to financing that have been developed countries such as Ethiopia and Benin. We will also consider often over-looked aspects of financing such as un-packing self-financing and the impact of remittances from migrant workers.

3. Harmonisation and alignment for the rural sector

Effective harmonisation and coordination between agencies is important to ensure that communities in the same geographic area have services based on similar policies and implementation approaches. Harmonisation can help to reduce duplication and thereby costs. Sector-wide approaches have emerged as a way of improving harmonisation between development partners and alignment behind government strategy. We will investigate experiences and mechanisms to encourage harmonisation, alignment and coordination of efforts to provide sustainable water services. We will also explore cases where harmonisation may stifle innovation, particularly at the operational level. Case studies will be presented from countries which have a relatively long history of harmonising development support such as Uganda, as well as others that are working towards this goal, such as Mozambique, Ghana, Malawi and Ethiopia. We will also take an international perspective on improving aid alignment by examining the Paris Declaration and the implications of the newly launched Sanitation and Water for All initiative.

4. Water service governance at decentralised levels

Provision of water is ultimately a governance issue. Although the decentralisation of responsibility for provision of services to lower tiers of government, or delegation to external providers, is generally seen as a positive step there are clear risks involved – risks of corruption, lack of accountability and transparency and political bias in decision-making. We will explore practical cases linked to themes such as decentralised management and transparency showing how governance over services can be strengthened, in order to provide sustainable services at scale and bring greater accountability to decision-making processes. Case studies will include examples from

Indonesia, India, East Africa, as well as from global initiatives to improve transparency and combat corruption.

We realise that changes are needed if we are to address the issues raised in these four key streams identified above. These changes cannot be applied in a single project or even programme. Many will require changes at sector level. Yet, such changes are not always easy or straightforward to bring about. Sometimes wholesale reforms may be needed, whereas in other cases, a gradual process of addressing key bottlenecks will be required. The impetus for such change lies primarily at the country level: governments, development partners and NGOs and others at sector level must analyse the need for change and find pathways or processes that can bring about such change. Yet we also know that the policy positions and decisions of international donor organisations can have a profound impact at community level, both positively and negatively. Existing global initiatives can support these change process through improved access to information and knowledge management, as well as advocacy towards the funders of rural water. Under the final stream of the symposium, we will hear examples of some of the **change processes** that are underway in countries such as Uganda and India. A panel debate will look into the feasibility and limitations of such changes. Finally, we will hear about global initiatives and analyse what else can be done to improve sharing of knowledge and cooperation beyond the symposium.

Your symposium

As participants from a wide range of countries and with huge experience in the field of rural water, we invite you to engage in these discussions during the course of the symposium. We ask you all to reflect critically on the concepts and ideas presented in this background paper and on the principles framework and to also raise your own experiences, ideas and knowledge to enrich the debates. We hope that this symposium will provide a platform for the sharing of knowledge, building networks and contributing to a movement which can finally address the long-standing problem of sustainable water services for all rural people.

Annex 1: PRINCIPLE-BASED FRAMEWORK FOR SUSTAINABLE SERVICES AT SCALE

PRINCIPLES FRAMEWORK		Levels of intervention			
	Areas of Principle	Water service provision	Intermediate	National	International
Service Delivery Approach	Policy, legislation and institutional factors	Water infrastructure, service levels and management arrangements are part of a recognised and defined Service Delivery Model and do not operate in isolation.	Clear roles, responsibilities and authority exist at decentralised levels to ensure the delivery and oversight of water services under relevant management arrangements. They also exist for system construction, operation and maintenance, post-construction support, up-grading, system expansion and replacement.	Policies and institutional structures are adopted to enable the Service Delivery Approach. Service models, service levels and responsibilities for planning, regulation and providers are clearly defined. There is clear legal status for providers including asset ownership. Support is provided to all institutions responsible for service delivery at decentralised and service provider level.	Development partner funding policies support sector reform processes that enable the adoption of a Service Delivery Approach.
	Financing for sustainability	Service providers and consumers understand the benefits of full life-cycle costing. Clear strategies are in place to increase demand for a water service. There is a willingness to commit resources to operational and capital maintenance expenditure.	Financial planning accounts for full life-cycle costs and service delivery is supported within available funding, through a combination of public sector financing, local revenues, tariffs and subsidies.	The concept of full life-cycle costs is embedded: financial mechanisms, budget processes and disbursement systems reflect this approach, including the costs of support to institutions at all levels. Total costs for service delivery are known and funded through a combination of national budgets, tariffs and (development	Development-partner funding policies support full life-cycle costs, including non-infrastructure elements, to enable a Service Delivery Approach.

				partner) subsidies as necessary.	
	Planning for sustainability	Customers participate in planning processes and consultation mechanisms.	Planning at decentralised level is based on Service Delivery Approaches using economies of scale, with the aim of full coverage under appropriate management arrangements	Planning at all levels is directed by clearly articulated policy choices and priorities, including concerns for IWRM and equitable access.	Development partner policies support decentralised planning processes.
	Transparency and accountability	Customers have access to information and are informed about who is accountable for their water service; mechanisms are in place to enable them to voice their opinions on performance.	Instruments are enforced with adequate resources for oversight, monitoring and regulation of water service delivery, including tendering and contracting, as well as accountability to other stakeholders such as customers, providers and civil society.	Oversight, monitoring and regulatory instruments in place to ensure accountability of decentralised government for service delivery.	Development partner funding policies support adoption of transparency and accountability mechanisms at all levels.
Learning and adaptive capacity	**Awareness and skills**	Service providers and customers are aware of their roles, rights and obligations, and have the skills and resources required to provide a sustainable service.	Skills, resources (including supply chains) and information are available at decentralised levels to ensure water governance functions, and that it provides long-term support to service providers.	Capacity building is a core policy with defined strategies and is supported through investment.	Development partner funding policies support systemic investments to build capacity at all levels of the water sector.
	Culture of learning and information sharing	Service providers and customer stakeholders participate in reflection and debate around water service delivery at local and intermediate levels.	Support mechanisms are available with adequate resources to facilitate information gathering for learning and innovation to improve service delivery (including	A learning culture is encouraged at all levels. Resources and mechanisms are put in place to enable information sharing on sector performance and action research.	Development partner funding policies support the development of a learning and innovation capacity in the water sector.

			technologies and management arrangements).		
Harmonisation and Alignment	**Harmonisation and alignment**	**Water infrastructure design, technology and management arrangements adhere to national guidelines, norms, standards and approaches, regardless of the implementing entity.**	**Development partner-funded projects accept and work within planning, implementation and management arrangements, and within budget processes, monitoring arrangements and regulations for service provision set as part of the Service Delivery Model.**	**Development partners are aligned with nationally-led policies, strategies, planning processes and priorities. Coordination mechanisms are in place for feeding development partner funding into the water sector.**	**Reciprocal accountability arrangements exist between national governments and development partners for rural water service policies and priorities. Development assistance is channelled through government-led mechanisms.**
	Coordination		**Coordination mechanisms and platforms are in place to apply the Service Delivery Model and create economies of scale, both for construction of new systems and follow-up support.**	**Cooperation and integration between national ministries to ensure alignment of water and other sectors' policies.**	**Coordination between development partners is improved in support of the Service Delivery Approach.**

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