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The use of cost information in planning and decision making in rural water and sanitation service delivery in Ghana

Imoro Braimah, Kwabena Nyarko and Patrick Moriarty

Abstract

The sustainable delivery of Water, Sanitation and Hygiene (WASH) services in rural and small towns in Ghana is threatened by high levels of system malfunction and breakdown. To contribute to the understanding of factors affecting long term sustainable service delivery, this study examined the planning process for delivering sustainable WASH services particularly with respect to the existing and potential uses of cost information in WASH decision making. The study reveals that the use of cost information in district water and sanitation planning is limited to the cost of providing and operating new facilities together with some limited cost information on replacement and capital maintenance. The planning process does not systematically address the full range of costs required once construction has taken place to ensure the smooth and indefinite provision of services. Even though some plans may give an indication of the likely cost of operating the WASH facilities, this is not often translated into the allocation of adequate financial resources to take care of all operational costs. Planning and budgeting for capital maintenance is often on an ad hoc basis. This results in significant proportions of non-functional WASH facilities. This paper discusses possible use of cost information to strengthen and improve the planning process and hence service delivery.

Keywords

Planning, operations and maintenance, sustainability, water supply, rural water.

1 INTRODUCTION

The goal of the Water, Sanitation and Hygiene (WASH) sector in Ghana is to deliver effective, efficient and sustainable services. Rural and small town water coverage has been increasing steadily from 58% in 2000 to 74% in 2008 (WHO/UNICEF, 2010), but there are problems associated with the efficiency and sustainability of the WASH services. In particular, there are high rates of non-functional systems. For point sources with hand-pumps this rate is typically estimated to be around 30%, a figure that fits with WASHCost research findings in which some 31% of 84 hand-pumps in 32 communities spread over three districts, were not working at the time of the survey (WASHCost Ghana Survey, 2010).

In Ghana, responsibility for rural and small town WASH service delivery is decentralised under the new local government system to the District Assemblies (DAs). The lead Government sector agency, Community Water and Sanitation Agency (CWSA), has responsibility for facilitating the delivery of WASH services in rural and small towns. The District Water and Sanitation Team (DWST) is a three member team that is charged with the responsibility of overseeing the provision of WASH service delivery at District Assembly level.

Planning and decision making for WASH services takes place at the district level where plans such as District Medium Term Development Plans (DMTDP), District Water and Sanitation Plans (DWSP) and District Environmental Sanitation Strategic Action Plans (DESSAP) are prepared to guide the provision of WASH services. According to Ampadu-Boakye et al. (2008), the preparation of these sector specific plans (DWSP and DESSAP), was initiated in response to the marginalisation of water and sanitation in the allocation of resources. Whilst efforts are being made to improve the planning and decision-making processes in the sector, Ewool (2003) has observed that the implementation of these plans in general has been flawed. The many challenges include inadequate co-ordination between planning, budgeting and finance.

The WASHCost Project¹ is an action research project aimed at quantifying the life cycle cost of sustainable WASH service delivery to make the cost information available to improve WASH governance at all levels. The project is researching the actual current cost components for the different WASH technologies. The project is also researching the cost components for the WASH service levels received. Finally the project is focusing on how WASH cost information could improve WASH governance for effective, efficient and sustainable WASH services delivery.

This paper is focused on the use of reliable cost information to improve decision making in Ghana's WASH sector. The paper examines the planning process for delivering sustainable WASH services particularly with respect to the existing and potential use of cost information by addressing the following research questions:

- At what stages in the planning and decision making process are cost data used?

¹ See <http://www.washcost.info>. For WASHCost Ghana see <http://www.washcost.info/page/145>

- What cost information is available for use in the planning process?
- How adequate is the cost information used in the planning process?

These questions are addressed in this paper, drawing primarily on the authors' own experience of facilitating District Water and Sanitation Plan (DWSP) preparation workshops across the ten regions of Ghana. In addition, detailed data on the application of cost data during plan implementation was gathered from two districts in the Ashanti region, namely: Bosomtwe and Ejura-Sekyedumase. Budgetary allocations for the operation of DWSPs were taken from the District Assembly Common Fund (DACF), whilst investment costs are sourced from development partner projects, typically channelled through CWSA.

The framework for determining the cost of providing water services used by WASHCost is based on the service life-cycle costs approach (LCCA). Life-cycle costs represent the disaggregated costs of ensuring delivery of adequate, equitable and sustainable WASH services to a population in a specified area over an indefinite time period; that is, this approach deals with the disaggregated costs of indefinite service provision (Fonseca, et al., 2010). The LCCA approach sees the need to clearly differentiate (disaggregate) costs over the following elements of the service life cycle:

- Capital expenditure (CapEx) represents the capital invested in initial construction of fixed assets such as concrete structures, pumps and pipes. It includes investments made the first time the system is built, as well as subsequent extension, enhancement and augmentation. It does not include replacement or rehabilitation of the original infrastructure (or infrastructure required to maintain the original service-level) – which are covered by CapManEx (see below). CapEx is primarily related to hardware costs but also includes software elements such as one-off work with stakeholders on issues such as training or design prior to construction or implementation, extension, enhancement and augmentation
- Operational and minor expenditure (OpEx) is expenditure related to regular or day-to-day operations of the service, including: labour, fuel, chemicals, materials, regular purchases of any bulk water and other expenses, including minor routine maintenance.
- Capital maintenance expenditure (CapManEx) is expenditure on asset renewal, replacement and rehabilitation, based upon serviceability and risk criteria. This is expenditure to keep services running in the longer term. Capital maintenance expenditures and potential revenue streams to pay those costs are critical to avoid the failures represented by haphazard system rehabilitation.
- Expenditure on direct support (ExpDS) includes expenditure on post-construction support activities for local-level stakeholders, users or user groups. The costs of ensuring that the local government staff have the capacities and resources to help communities when systems break down or to monitor private sector performance are usually overlooked.
- Expenditure on indirect support (ExpIDS) includes expenditure on macro-level support, planning and policy making. Indirect support costs include government macro-level planning and policy-making, developing and maintaining frameworks and institutional arrangements, capacity-building for professionals and technicians.

- Cost of capital is the cost of borrowing or otherwise acquiring the resources to provide the assets needed for a service. This is made up of interest payments on debt and dividend payment to equity providers.

2 WASH DECENTRALISATION IN GHANA AND WHERE UNIT COSTS ARE USED

WASH sector governance in Ghana is in the process of being decentralised to District level with an emerging mix of private sector and community participation in the various stages of planning and implementing WASH services. This section describes the WASH sector decentralisation, planning and decision making process in Ghana and where unit costs have been used.

The National Community Water and Sanitation Programme (NCWSP) provides the framework for rural and small town WASH service delivery, which includes:

- Provision of water and sanitation services to communities that will contribute toward the capital costs and assume full operation and maintenance costs of facilities. Government policy on the contribution of communities towards capital cost of WASH facilities is currently under review.
- Ensuring sustainability of facilities through community management and private sector provision of goods and services with public sector promotion and support;
- Maximising health benefits by integrating water, sanitation and hygiene education interventions.

The NCWSP is based on the concepts of community ownership and management (COM) and district ownership and management (DOM) of water and sanitation facilities in order to ensure sustainable services to rural communities and small towns in Ghana. These concepts are derived from the principle of subsidiarity which advocates assigning responsibilities between the District Assemblies and the communities according to capacity ([Braithwaite & Jagri, 2007](#)).

The decentralisation policy has been accompanied by the establishment, and some strengthening, of local government. Currently, all the District Assemblies have District Water and Sanitation Teams (DWSTs) in charge of water supply and sanitation delivery to communities in their districts. Consultants, contractors, suppliers, non-governmental organisations etc. with the relevant skills and experience are contracted by the DAs and the Community Water Sanitation Agency to provide WASH related goods and services to communities.

The Metropolitan, Municipal and District Assembly WASH Planning Process

The National Development Planning System Act, 1994, Act 480, established two levels of planning in Ghana: at district or local level, and at national level.

The first level of planning occurs at the district level where the Metropolitan, Municipal and District Assemblies (MMDAs) have the authority to prepare and implement plans for the development of their areas of jurisdiction.

The National Development Planning Commission (NDPC) is responsible for coordinating national planning and issues guidelines for Ministries Departments and Agencies as well as for Metropolitan, Municipal and District Assembly (MMDA) planning. The CWSA prepares a Strategic Investment Plan (SIP) to mobilise financial resources for investment in the WASH sector. The Ministry of Finance and Economic Planning (MoFEP) liaises with the NDPC to prepare the Medium Term Expenditure Framework, fiscal and financial strategies and annual national budgets. In practice however Medium Term Expenditure Framework and annual budget are not based on the Strategic Investment Plans.

The District Water and Sanitation Plans are developed within the framework of the National Community Water and Sanitation Programme (NCWSP) and the National Development Planning Commission (NDPC) format for preparing plans. As indicated in the NDPC guidelines the preparation of the WASH sector plans is expected to follow four basic stages with the required tasks and tools as indicated in Table 1

DWSP Phases	Major Tasks and Sequence	Cost information needed?
Analysis	Problems are identified, potentials and constraints are analysed to form an overall picture of the situation.	No
Policy Formulation	Definition of Goals and Objectives Statement of Positions in support of Goals (Policies and Principles) Statements of Means (Strategies) and Actions	No
Planning and Programming	Projections, Prioritisation, Costing Selection of Facilities, Locations and Phasing Design Implementation Preparation of Plan of Operation, Action Plans & Budget, Public Hearing	Yes
Implementation and management	Project/Programme Implementation Monitoring and Evaluation Schemes	Yes

Table 1 Stages of WASH sector planning process and where cost information is relevant

After the WASH problems and needs are established for each community within the MMDAs in phase one, the goals, objectives and principles are formulated in the second phase. Whilst

these goals, objectives and principles are supposed to be district specific they should not conflict with the overall national policy.

It is in the third phase that detailed programmes and projects are designed to meet the WASH needs identified in phase one. This very important phase of the district water and sanitation planning process starts with projections of population growth and determination of future needs and translating them into measurable targets and this is mainly done by a technical team comprising the Planning Officer and the district water and sanitation team. This feeds into programming which involves community selection and prioritisation of WASH projects. There is need, at this stage, for a technical and political interface: the technical interface involves the use of a set of technical criteria to select a list of prioritised communities to benefit from WASH projects; the political interface selects the actual beneficiary communities from the prioritized list. For example, in the Bosomtwe District, the District Chief Executive and the District Coordinating Director are both involved in the community selection process.

The draft District Water and Sanitation Plan is presented at a public hearing and the participation is according to the National Development Planning Commission recommendations. The General Assembly is the final authority that approves the DWSP after it has passed through the Development Planning Sub-Committee and the Executive Committee for consideration. Copies of the approved plans are submitted to the Regional Water and Sanitation Team (RWST). After final approval the WASH plans are considered legal documents, approved by the local authority through the Assembly for implementation.

Use of District Water and Sanitation Plans in sourcing finance

The DWSPs are used to solicit funds from all sources including government. Typically the source of funding may include Development Partners, Government of Ghana, District Assemblies and community members. That said, the vast majority of capital investment comes from either donors or development banks in the form of projects.

In most cases, the district team presents an annual action plan to the Metropolitan, Municipal and District Assemblies and the CWSA for the requisite financial resources to be allocated for implementation. In many of the MMDAs the bulk of funding for implementation of these plans comes from Development Partners who normally channel funds through projects managed by the CWSA. These funds are typically aimed at providing new facilities and in only a few cases do they cover rehabilitation. They are typically insufficient to cover all the projects listed in the annual action plans. Again, some prioritisation criteria are applied in consultation with the MMDA authorities to short-list a number of projects for funding. Detailed project plans on the selected projects are then prepared for implementation. Experience gathered in the course of the facilitation of DWSP preparation and interviews with the relevant officials from the selected districts reveal that there are always some cost estimates provided to guide planning and budgeting at least up to the stage of awarding contracts for the construction of WASH facilities.

It is worth noting that what has been described above is the formal procedure for developing District Water and Sanitation Plans. In practice, the quality of DWSP preparation varies considerably as does the level of stakeholder involvement. Arguably, more serious, is the fact that because both local and national government financing is typically inadequate for major investments in WASH infrastructure there is a degree of disconnect between what is planned and what is actually delivered in the form of new projects. As discussed, most new hardware is delivered by either development partner projects (typically rolled out by CWSA) or by NGOs, both of whom often come with their own priorities and conditionalities, which follow DWSPs to only some extent.

Unit cost data: official guidelines and limitations

The efficiency and sustainability of different ways of meeting WASH needs depends on cost, and the importance of real cost data at this stage of the planning process cannot be over emphasised. Experience from the facilitation of the DWSP process across the entire nation indicates that the planning teams normally depend or rely on the Regional Water and Sanitation Teams of the CWSA to provide unit cost estimates. A sample of such data is shown in Table 2 below.

CapEx Hardware	
<u>Water Facilities</u>	
Pipe System (PS)	US\$40 per person of the population
Borehole (BH)	Ghc 7,000 (US\$ 7,000 ²)
Hand Dug Well (HDW)	Ghc 3,600 (US\$ 3,600)
<u>Sanitation Facilities</u>	
KVIP (Household)	Ghc 480 (US\$ 480)
VIP Mozambique/Rectangular (Lined)	Ghc 250 (US\$ 250)
VIP Mozambique/Rectangular (Unlined)	Ghc 150 (US\$ 150)
CapEx Software	
<u>Training</u>	
Pump Care Taker Training	Ghc 70 (US\$ 70) per person per training workshop
Latrine Artisan Training	Ghc 280 (US\$ 280) per person/training workshop
WATSAN Training	Ghc 630 (US\$ 630) per WATSAN Committee
WSDb Training	Ghc 4,300 (US\$ 4,300) per WSDb Committee
Area Mechanic Training & provision of tools	Ghc 650 (US\$ 650) per person per training workshop
<u>Partner Organisations</u>	
Partner Organisation (7 days Contract)	Ghc 600 (US\$ 600) per community

² 1 US\$ = 1.0 GHc (2008)

One Year Contract for WATSAN Formation/Animation etc.	Ghc 1700 (US\$ 1,700) per community
OpEx	
<u>Operation and Maintenance (Water Systems)</u>	O& M Cost per Year
Borehole with Nira Hand Pump	Ghc 55 (US\$ 55)
Borehole with Afridev Hand Pump	Ghc 85 (US\$ 85)
Borehole with Vergnet Hand Pump	Ghc 100 (US\$ 100)
Borehole with GM Indian Mark II Hand Pump	Ghc 100 (US\$ 100)

Table 2 Unit Cost Data DWSP Preparation in 2008

Source: CWSA, Upper East Region

The cost sheet in Table 2 indicates a number of limitations when compared with the WASHCost LCCA framework (Fonseca, et al., 2010):

- The cost estimates provided in the District Water and Sanitation Plans are limited to investment cost and normal operations cost (CapEx and OpEx); no estimates are made for repair and replacement of key components (CapManEx).
- Estimates for annual operations and minor maintenance have been provided only for point sources (boreholes with hand pumps) and not for small town piped water systems.
- No estimate is included for direct support expenditure (ExpDS) from the DAs (i.e. the costs of operating DWSTs).

In many districts Development Partners supported the establishment of the DWST within the MMDAs as part of the costs of the project that delivered the facilities, and continued to support their operational cost for a number of years, in the hope that the DAs will eventually bear the full operational cost after the end of their project support. However, in practice and in the authors' experience this does not happen in many MMDAs and the work of the DWSTs is adversely affected once projects end.

One of the most critical tasks in the planning process is the evaluation of alternatives and the making of choices with regards to preferred technological options to meet different service levels. Clearly, cost is a key criterion when making such choices about initial investment costs, but also about the longer terms costs related to sustaining the service. Arguably, given that most initial investment (CapEx) comes through donor projects it is the latter costs (OpEx, CapManEx, ExpDS) that are the most important at the level of DA planners and decisions makers, yet it is precisely this information that is least available. In terms of the main technological options used in Ghana, the principal options are: hand dug wells, borehole with handpump, single community piped schemes and multi-village piped schemes. If DAs are taking their responsibilities as planners seriously, the availability of the absolute and relative magnitude of the different cost components for the different technological options and service levels is clearly essential for selecting an appropriate and sustainable mix of options to meet district demand for services. Yet in the authors' experience, Table 2, dominated by CapEx and, to a lesser extent, OpEx costs, is typical in demonstrating the type of data used: full life cycle costing is nowhere used in DWSP preparation, in spite of its obvious relevance for sustainable WASH services delivery.

In the case of sanitation, cost information relates solely to the construction of facilities and no cost information is provided for routine operations including sludge removal and final disposal. The cost of health and hygiene promotion is also not provided. Two approaches to providing household latrines are in use; the subsidy approach and the community-led total sanitation (CLTS) approach. Unfortunately investment (capital) cost estimates are only available for the subsidy approach for use in the WASH sector plan preparation.

3 AVAILABILITY OF COSTS FOR WASH PLANNING

Of the four main cost components that must be taken care of if sustainable WASH service delivery is to be achieved, only the initial capital investment cost (CapEx), and operation and minor maintenance cost (or OpEx) are dealt with systematically in District Water and Sanitation Plans – and the latter is only partly covered. The other two critical cost components are capital maintenance or CapManEx, which means reinvestment in keeping services alive, and institutional support costs (ExpDS). Most WASH sector plans are silent on these costs which are critical for sustainable WASH service delivery. Whilst some WASH sector plans make mention of the support cost and often refer to them as “software costs” and assume that they will be catered for, others remain completely silent. No WASH sector plans make mention of the capital maintenance costs. Consequently these types of costs are not catered for in the costing and subsequent mobilisation of resources for implementation. As a result of this, when major breakdown occurs the facilities are typically abandoned and a search begins for external support for another facility to the one that was not properly maintained.

Operation and minor maintenance expenditure (OpEx), which is usually referred to as O&M in Ghana, is typically captured in the District Water and Sanitation Plan for wells or boreholes and handpumps only. For sanitation, most DWSPs only plan for liquid waste disposal for institutions because CWSA and some donor institutions discourage public toilets in residential areas, and promote household toilets as a strategic principle. As a result of this approach many DWSPs do not consider the operation and maintenance cost (such as removal of sludge) for even those institutional toilets that are provided. The excuse is that the institutions themselves are expected to take care of those costs. Even if that is the case, there is still a need for the cost to be determined to guide the mobilisation of the required resources and to help shape the demand of institutions and households for appropriate types of facility.

The responsibility for mobilising funds for OpEx rests with the community members in line with the COM concept, but in practice the willingness and ability of community management structures – Water and Sanitation Committees (WATSANs) and Water and Sanitation Development Boards (WSDBs) – to address operational challenges has been one of the main constraints holding back sustainable service delivery. One of the main reasons given for the proliferation of malfunctioning systems is lack of funds for OpEx and CapManEx. Communities are not making adequate provision for the OpEx, even though the DWSP gives

an estimate at least for the boreholes with hand pumps, while CapManEx remains a largely grey area of unclear institutional responsibility.

Institutional support costs for sanitation facilities are perhaps the most problematic area because the WATSAN and WSDB take charge of only the water facilities. Where public toilets exist their management is beset with problems due to the absence of clarity in terms of responsibilities. In many communities where the need for toilets is high, due to lack of household toilets, there is often a clash of interest between local political groups and the decentralised sub-structures related to the revenue required for operation of the toilets.

In view of the serious limitations of the DWSP in terms of sanitation, the district environmental sanitation plans (DESSAP) are expected to address all aspects of sanitation including solid waste and the operation and maintenance of liquid waste disposal. As with the DWSP, the greatest challenge for the DESSAP will be in identifying sources of cost information for the various technologies of both liquid and solid waste disposal facilities and services. DESSAP is expected to cover private sector participation for waste management and the operation and maintenance of toilets as well as final disposal sites (engineered landfill sites). There is a huge gap in terms of cost information for these varied technologies and services required in the sanitation sub-sector.

Braimah and Jagri (2007) and Pilgrim, et al. (2004) have indicated that even though WATSAN and WSDB are responsible for the operation and maintenance of WASH facilities, in many instances they are not able to discharge their duties. The main reasons for this situation are primarily attributable to lack of mechanisms to ensure oversight and accountability (such as regular audit); lack of adequate incentives for the members; and inadequate financial resources to secure the requisite human resources to operate and manage the facilities in a sustainable manner. It has been argued that some communities simply do not have the requisite human resources to form WATSANs and WSDBs with the necessary knowledge and skills to operate and manage WASH systems in a businesslike manner to ensure sustainability. The situation is made worse by frequent movement of trained staff, due in part to lack of incentives.

As mentioned already, the District Water and Sanitation Plan does not make provision for capital maintenance expenditure. As a result the responsibility for assets repairs, replacement and rehabilitation for WASH facilities to ensure sustainable service delivery is not clear. Typically, Development Partners' resources are earmarked for new projects (CapEx) and not for capital maintenance. There seems to be some level of shared understanding, by at least some actors, that capital maintenance is the responsibility of the DAs but, crucially, this understanding is not captured in the DWSP. A direct consequence is that there is no systematic programme to replace old assets. For example handpumps over 30 years of age are still in operation and there seems to be no agreement on when to replace handpumps in rural water supply in Ghana. The few handpumps that were replaced were done on ad hoc basis and did not follow any systematic plan.

4 CONCLUSION AND RECOMMENDATIONS

The paper has established that there is critical knowledge gap in terms of the availability and use of life-cycle cost information for providing WASH services in Ghana in the planning and decision making process. The use of cost information in rural areas and small towns is primarily limited to estimating the costs related to provision of new WASH facilities, while the long term recurrent costs related to providing sustained services are scarcely taken into account.

The District Water and Sanitation Plan is, on paper, the main tool for decision making around WASH service provision. In practice however District Water and Sanitation Plans focus almost exclusively on capital investment costs related to constructing new (and occasionally rehabilitating existing) schemes. District Water and Sanitation Plans do typically include cost estimates for the operation and minor maintenance of the handpumps. However, they do not do this for larger, more complex and more expensive piped schemes. Beyond these, no other cost elements are dealt with in the Plans. The capital maintenance costs such as major repairs, rehabilitation and replacement of key components of the WASH facilities and the costs of supporting community management are not covered.

Two main types or models of water service exist in rural Ghana: point sources in small communities (typically hand-pumps on boreholes) and small pipe networks. For the former, there are currently no mechanisms at District Assembly level to follow up on financial management of tariffs by water and sanitation committees, to ensure that funds are available in the communities for OpEx. This in turn makes it difficult for most communities to meet their operation and minor maintenance obligations.

In the case of small towns where cost information on OpEx is not provided at all in the District Water and Sanitation Plans, financial oversight of the operations of Water and Sanitation Development Boards (formally a responsibility of the MMDAs) is lax or non-existent. OpEx cost information that could greatly improve the DWSPs relates to the expected minor O&M costs of different piped systems with respect to water source (surface water, ground water) and source of power (solar, diesel generator set, national grid) – but none of this is available. The DWSP is equally silent on planning and budgeting for capital maintenance.

Sustainable WASH service delivery requires strong linkages between policy, planning and budgeting, but in Ghana the linkage is weak at district level. The national water policy is clear on the goal of having sustainable access to WASH services but the goal has been translated (in practice) to the delivery of water and sanitation facilities rather than of sustainable services. As a result the policy goal is not reflected in the DWSPs, the primary planning tool at the district level, which do not identify sufficient costs elements or financial resources to achieve sustainable WASH services.

The study reveals that budgets of the District Assemblies cater, in practice, only for the operational costs of carrying out the DWSPs and the District Assembly contributions to the

capital costs of WASH facilities. Budgetary allocations for the operation of DWSPs were taken from the District Assembly Common Fund (DACF), whilst investment costs are sourced from development partner projects, typically channelled through CWSA.

In the Metropolitan Municipal and District Assembly (MMDA) budgeting for the WASH sector there is no budget line for the operation and maintenance of WASH facilities ostensibly because these responsibilities are considered to lie with the beneficiary communities. In practice, communities struggle to meet their operations and minor maintenance obligations.

The quality of District Water and Sanitation Plans, and the strength of the linkage between plans and budgets could be greatly enhanced if DWSPs included credible and reliable information on both costs and revenue sources: for both planning and budgeting. This makes life-cycle unit cost estimates – disaggregated at least to cover the major technological and service level options – essential in the planning and decision-making process. Estimates could facilitate planning and decision making by ensuring that realistic budgets are prepared for implementation and ensuring the sustainability of WASH services. Given the importance of cost information in decision making it is recommended that existing monitoring system such as the District Monitoring and Evaluation System (DiMES) should incorporate relevant and updated cost information on WASH service delivery.

In summary, the following three key recommendations are made, based on this study:

- That District Water and Sanitation Plans (DWSPs) clearly identify CapEx, OpEx, CapManEx and ExpIS costs for all proposed technological and service level options
- That DWSPs clearly identify revenue sources to cover the identified costs
- That Development Partners and NGOs respect the choices made in DWSPs when developing projects, and use DWSPs as the basis for their interventions.

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ACRONYMS

CapEx	Capital Expenditure
CapManEx	Capital Maintenance Expenditure
COM	Community Ownership and Management
CLTS	Community-led total sanitation
CWSA	Community Water and Sanitation Agency
DA	District Assemblies
DACF	District Assembly Common Fund
DESSAP	District Environmental Sanitation Strategic Action Plans
DiMES	District Monitoring and Evaluation System
DMTDP	District Medium Term Development Plans
DOM	District Ownership and Management
DWSP	District Water and Sanitation Plans
DWST	District Water and Sanitation Team
ExpDS	Expenditure on Direct Support
LCCA	Life-Cycle Costs Approach
MMDA	Metropolitan, Municipal and District Assemblies
MoFEP	Ministry of Finance and Economic Planning
NCWSP	National Community Water and Sanitation Programme
NDPC	National Development Planning Commission
NGO	Non-Governmental Organisation
O&M	Operation and (minor) Maintenance
OpEx	Operating and Minor Maintenance Expenditure
UNICEF	United Nations Children's Fund
RWST	Regional Water and Sanitation Team
SIP	Strategic Investment Plan
WASH	Water, Sanitation and Hygiene
WATSAN	Water and Sanitation Committee
WHO	World Health Organization
WSDB	Water and Sanitation Development Board