“Water generally takes precedence over sanitation in the policy programmes of governments. It also occupies a higher rank in the budget priorities of schools, places of work and clinics. Even though investing in sanitation at the same time as in water is significantly more beneficial than investing in water only, water sector constraints seem easier to finance than those of the sanitation sector: it is indeed observed that only 20 per cent of government expenditure and 37 per cent of international aid for the water and sanitation sectors are devoted to sanitation. This lack of resource commitment is explained perhaps by the fact that, in many cultures, sanitation is a taboo subject that remains unpopular both with politicians and town planners.”

Catarina de Albuquerque, Virgina Roaf. ‘Straight to the Point: Good practices for attaining rights to water and sanitation’ World Water Council (February 2012).

Nevertheless, since 2004, the AfDB and its partners have invested a significant amount of the funds mobilised by the Rural Water Supply and Sanitation Initiative in addressing the sanitation deficiency in rural Africa. As a result, 57 million people have gained access to sanitation in 32 African countries - amounting to sanitation for 15,000 people per day.
In 2013, an additional 13.3 million people were reported to have been provided with access to improved sanitation, representing a 30% increase over the reported cumulative achievement at the end of 2012. During the same period (2013), about 9,300 public latrines were constructed and community awareness was raised through various sanitation and hygiene education campaigns, leading to nearly about 315,000 additional household latrines constructed.

When compared with the results achieved in the rural water supply sector, much more needs to be done on sanitation. In order to explore some of the issues and challenges relating to the role of hygiene and health education in access to drinking water supply and sanitation services in rural Africa, the Bank’s Water and Sanitation Department commissioned a Multinational Study in 2012 and 2013, with the overall aim of formulating realistic and gender-specific strategic recommendations in the context of rural water supply and sanitation services. The study was funded by the Rural Water Supply and Sanitation Initiative (RWSSI) Trust Fund.

Four of the Bank’s water and sanitation projects were analysed through an extensive literature review and field visits (in Senegal, Burkina Faso, Tanzania and Mozambique), in order to determine best practices for hygiene and health training and to define an implementation strategy for future RWSSI operations, together with some preliminary recommendations.

Specifically, the study aimed to:

- Analyse projects in the four countries in order to understand how hygiene, sanitation and health education is taken into account in the context of rural water supply and sanitation services
- Establish best practices concerning training for hygiene, sanitation and health education
- Analyse the Bank’s RWSSI operations with regards to the recommended best practices, and
- Define an encompassing and realistic strategy for future RWSSI operations, with regards to hygiene, sanitation and health education.

**KEY FINDINGS**

Among the key findings of the Study was the fact that despite the application of participatory methods, coupled with social mobilisation and sensitisation on the use and maintenance of infrastructure, ownership by beneficiaries in rural populations is often low when it concerns sanitation and hygiene issues. As a result of this lack of ownership, sustainability of water supply infrastructure and sanitation facilities remains a challenge. Weak and inappropriate technology options also contribute to lack of infrastructure sustainability in the sanitation sector, despite the initial positive mobilisation of communities. Although it is not systematic, unacceptable technologies are sometimes imposed on rural populations, which also results in low sustainability and utilisation.

The participatory and interactive methods used to produce and communicate messages have practically not evolved since their introduction in the 1980s. SARAR (Self-esteem, Associative strength, Resourcefulness, Action planning, Responsibility) and PHAST (Participatory Hygiene and Sanitation Transformation) take the lion's share, along with the Community Led Total Sanitation (CLTS) method which has been used in the sanitation sector for some years now. The Study recognised that SARAR/PHAST-type methodologies can help to stimulate the interest of beneficiaries in the infrastructure and that with CLTS, rural populations themselves are encouraged to construct latrines. However, it was noted that such constructions are often not durable enough
to hold over time and **badly maintained** and this soon results in the original situation of little or no sanitation.

**RECOMMENDATIONS**

The study made two sets of recommendations for the Bank:

1. **Strategic proposals** for overall implementation, which are not necessarily directly linked to the implementation of a particular rural RWSS operation or project
2. **Methodological proposals** for the implementation of specific operations or projects. These methodological proposals focus on project support activities including social mobilisation, sensitisation and education on hygiene, sanitation and health through various actions including information, education and communication (IEC). The recommendations also proposed additional training for project/RWSS system operators and for members of future user associations or committees and a focus on monitoring and evaluation as well as impact assessment. The study also recommended a cost modelling of the analytical approach linked to these activities. Detailed elements presented and discussed in the Study Report, including examples of IEC activity costs; profiles of facilitators and community intermediaries; IEC aids, and a modelling of support activity costs included in the study sector are provided in the annexes.

**Strategic Proposals:**

The strategic proposals outlined in the Study Report relate to the programming of activities, their implementation methods, the monitoring and evaluation system and the planning of resource mobilisation.

- The Study proposes a review of operational or project programming and phasing of support components. This entails:
  - Strengthening decentralised upstream planning through local water and sanitation plans;
  - Reinforcing the preparatory phase in order to better identify local partners and to look into the socio-economic and cultural implications of operations and strengthen participation of the beneficiaries;
  - Developing a support and gradual withdrawal phase after the handover of infrastructure to management entities and local authorities.

- Also proposed are the diversification and adaptation of IEC techniques and tools, including the use of varied and innovative communication vehicles designed to supplement SARAR/PHAST and CLTS-type participatory methods.

- Regarding the professionalisation of facilitation, mobilisation and social marketing, the Study recommends the strengthening of the capacity of stakeholders (e.g. members of user associations and committees) and intermediaries through training and certification.

- The proposal to strengthen monitoring and evaluation and share experiences, information and data entails several activities, including:
  - Developing a strengthened logical framework;
  - Including evaluation activities (mid-term, impact, etc.);
  - Building case studies for experience sharing and strengthening study and research activities;
  - Creating national and international data banks.
The Study also recommends the targeting of resources to ensure the attainment of enhanced objectives and tasks, incorporating budgets that reflect estimated needs. It anticipates that support activities, such as mobilisation and social marketing, hygiene sensitisation and education, sanitation, health, and supplementary training will continue to grow as physical coverage rates increase.

Methodological Proposals:

The methodological proposals in the Study Report focus on the three phases in the implementation of AfDB’s rural water and sanitation operations or projects. They are presented according to the typical operational sequence: preparation, implementation and consolidation.

1. It is recommended that projects should provide for a consolidation and monitoring phase at the beginning of the operational cycle. It proposed that this phase be called the “disengagement phase”, or “withdrawal phase” given its aim of ensuring sustainability by providing the beneficiary population with continued essential support, in addition to monitoring the impacts of the operation.

2. The study highlights the importance of operationalising the monitoring and evaluation system. The main objective of such a system is to provide information on the operation’s progress and to regularly measure its ability to achieve the stated objectives, including short- and medium-term impacts. The same monitoring system, if consolidated and maintained over time, allows for the long-term measurement of impacts and also supports project/programme management. The study recommends a set of specific indicators that should be considered for such a monitoring and evaluation system.

3. The Study's methodological proposals recommend moving away from budgeting for the support activities of drinking water supply and sanitation operations or projects simply as a percentage of the amount allocated to infrastructure. A budget valuation approach is proposed that enables project designers to budget according to the costs of necessary support activities such as IEC, as well as for training of various stakeholders including water, hygiene and sanitation committees and user associations.
Multinational Study on Education, Hygiene and Health in the Rural Water Supply and Sanitation Context
Final Report

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<th>Description</th>
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<tr>
<td>ACRA</td>
<td>Association for Rural Cooperation in Africa and Latin America (Associazione di Cooperazione Rurale in Africa ed America Latina)</td>
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<tr>
<td>ADF</td>
<td>African Development Fund</td>
</tr>
<tr>
<td>AfDB</td>
<td>African Development Bank</td>
</tr>
<tr>
<td>AIDS</td>
<td>Acquired Immune Deficiency Syndrome</td>
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<tr>
<td>ASUFOR</td>
<td>Borehole User associations</td>
</tr>
<tr>
<td>ATPC</td>
<td>Community-piloted Total Sanitation</td>
</tr>
<tr>
<td>AWF</td>
<td>African Water Facility</td>
</tr>
<tr>
<td>BD</td>
<td>Bidding Documents</td>
</tr>
<tr>
<td>CAP</td>
<td>Knowledge, Attitudes, Practices</td>
</tr>
<tr>
<td>CBC</td>
<td>Communication for Behaviour Change</td>
</tr>
<tr>
<td>CFAF</td>
<td>African Financial Community Franc</td>
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<tr>
<td>CREPA</td>
<td>African Centre for Drinking Water and Sanitation</td>
</tr>
<tr>
<td>CSO</td>
<td>Civil Society Organization</td>
</tr>
<tr>
<td>CTB</td>
<td>Belgian Technical Cooperation</td>
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<tr>
<td>DWSS</td>
<td>Drinking Water Supply and Sanitation</td>
</tr>
<tr>
<td>EAC</td>
<td>East African Community</td>
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<tr>
<td>ECOWAS</td>
<td>Economic Community of West African States</td>
</tr>
<tr>
<td>GDP</td>
<td>Gross Domestic Product</td>
</tr>
<tr>
<td>HIV</td>
<td>Human Immunodeficiency Virus</td>
</tr>
<tr>
<td>HOP</td>
<td>Human-Operated Pumps</td>
</tr>
<tr>
<td>IEC</td>
<td>Information, Education, Communication</td>
</tr>
<tr>
<td>ILO</td>
<td>International Labour Organisation (International Labour Office)</td>
</tr>
<tr>
<td>IWRM</td>
<td>Integrated Water Resources Management</td>
</tr>
<tr>
<td>LWSP</td>
<td>Local Water and Sanitation Plans</td>
</tr>
<tr>
<td>MARP</td>
<td>Active Research Method and Participatory Planning</td>
</tr>
<tr>
<td>MDG</td>
<td>Millennium Development Goals</td>
</tr>
<tr>
<td>NGO</td>
<td>Non-Governmental Organization</td>
</tr>
<tr>
<td>OAD</td>
<td>Open Air Defecation</td>
</tr>
<tr>
<td>OWAS</td>
<td>Water and Sanitation Department (AfDB)</td>
</tr>
<tr>
<td>Abbreviation</td>
<td>Description</td>
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<td>--------------</td>
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<tr>
<td>PEPAM</td>
<td>Millennium Drinking Water and Sanitation Programme (Senegal)</td>
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<tr>
<td>PHAST</td>
<td>Participatory Hygiene and Sanitation Transformation</td>
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<tr>
<td>PHS</td>
<td>Population and Health Survey</td>
</tr>
<tr>
<td>PIPO</td>
<td>Planning of Operations by Objectives</td>
</tr>
<tr>
<td>PN-AEPA</td>
<td>National Drinking Water Supply and Sanitation Programme (Burkina Faso)</td>
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<tr>
<td>ppp</td>
<td>Purchasing Power Parity</td>
</tr>
<tr>
<td>PRONASAR</td>
<td><strong>1.</strong> Programa Nacional de Abastecimento de Água Rural e Saneamento (National Rural Water Supply and Sanitation Programme) (Mozambique)</td>
</tr>
<tr>
<td>RWSS</td>
<td>Rural Water and Sanitation</td>
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<tr>
<td>RWSSI</td>
<td>Rural Drinking Water Supply and Sanitation Initiative</td>
</tr>
<tr>
<td>RMC</td>
<td>AfDB Regional Member Countries</td>
</tr>
<tr>
<td>SADC</td>
<td>Southern African Development Community</td>
</tr>
<tr>
<td>SARAR</td>
<td>Self-esteem, Associative strength, Resourcefulness, Action planning, Responsibility</td>
</tr>
<tr>
<td>UNDP</td>
<td>United Nations Development Programme</td>
</tr>
<tr>
<td>UNICEF</td>
<td>United Nations Children’s Programme</td>
</tr>
<tr>
<td>UNO</td>
<td>United Nations Organization ILO/ILB (International Labour Organisation/Office</td>
</tr>
<tr>
<td>VIP</td>
<td>Ventilated Improved Pit latrine</td>
</tr>
<tr>
<td>WASH</td>
<td>Water, Sanitation and Hygiene</td>
</tr>
<tr>
<td>WHO</td>
<td>World Health Organization</td>
</tr>
<tr>
<td>WSA</td>
<td>Water and Sanitation for Africa (= CREPA)</td>
</tr>
<tr>
<td>WSDP</td>
<td>Water and Sanitation Development Programme (Tanzania)</td>
</tr>
<tr>
<td>WSP</td>
<td>Water and Sanitation Programme</td>
</tr>
<tr>
<td>WUA</td>
<td>Water User association</td>
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</table>
Introduction

This report is the outcome of a study on sensitization, education and promotion support activities among the population with respect to hygiene, sanitation and health issues in rural drinking water supply and sanitation (RWSS) projects or operations in Africa. This study led to the documentation of methods and tools used by these activities, their effects, impact and role in the population’s behaviour change, and the sustainability of infrastructure and management structures set up.

A "global and retro-information" report summarizes the findings of the field work done in four countries retained by the Water and Sanitation Department (OWAS) of the African Development Bank (AfDB) for the conduct of the study: Burkina Faso, Mozambique, Senegal, and Tanzania. Four monographs accompany this report, for each of the four countries retained for field work. They present the water and sanitation situation in these four countries, the policies and programmes in place, their background, their organization, their implementation, the main operations conducted in the past decade; and pay special attention to activities linked to the study field. Particular situations examined on the field are also commented. A series of observations is made in each country, from which recommendations and suggestions are drawn.

The overall objective of the study, and therefore of this report, is to provide the AfDB with "overall, realistic and gender-specific strategic recommendations on the role of hygiene and health education in access to RWSS facilities and their use in the RWSSI context."

Organization of the report

The report first presents all the main findings provided by the study. This is a summary presentation. All findings are detailed in the retro-information and overall report. This recall is however necessary to set the ensuing proposals within their driving logic.

The proposals emanating from the findings are divided into two groups: strategic proposals for the AfDB for overall implementation (not necessarily directly linked to the implementation of a particular rural WSS operation or project), and methodological proposals for the implementation of specific operations or projects. The latter focus on project support activities: social mobilization, sensitization and education of the population on hygiene, sanitation and health through various actions including IEC; additional training (both of project or RWSS system operators and members of future user associations or committees). Proposals also focus on operation monitoring/evaluation and impact assessment. Lastly, a cost modelling of the analytical approach linked to these activities is proposed in the last section.

A series of annexes provides the additional and detailed elements presented and discussed in the report, including examples of IEC activity costs, examples of profiles of facilitators and community intermediaries, examples of IEC aids, and a modelling of support activity costs included in the study sector.
A. Study background

Access to drinking water and sanitation constitutes a central element in development and poverty reduction policies. As recalled by the African Ministers’ Council on Water (AMCOW), in its opening statement for the 3rd World Water Forum in Kyoto on 23 March 2003, “Water is life – Without water, there is no future.”

The Millennium Development Goals (MDG) in 2000 included sustainable supply of “safe drinking water” among the four targets of Objective 7 “Ensure a sustainable environment”, but not as an objective in its own right.

<table>
<thead>
<tr>
<th>Objective 7. Ensure a sustainable environment</th>
<th>TARGETS</th>
<th>INDICATORS</th>
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<tbody>
<tr>
<td><strong>Target 7a</strong> Include sustainable development principles in national policies and programmes, and reverse the current trend towards depletion of environmental resources.</td>
<td>• Proportion of forest areas. • Proportion of land protected to preserve biodiversity in relation to the total surface area. • Energy consumption (kg oil equivalent) for 1$ GDP (PPP).</td>
<td></td>
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<tr>
<td><strong>Target 7b</strong> Reduce loss of biodiversity and significantly reduce the loss rate by 2010.</td>
<td>• Carbon dioxide emission (per capita) and CFC consumption depleting the ozone layer (tonnes of ozone depleting potential).</td>
<td></td>
</tr>
<tr>
<td><strong>Target 7c</strong> Reduce by half, by 2015, the percentage of the population that does not have sustainable access to drinking water supply or basic sanitation services.</td>
<td>• Proportion of the urban and rural population with sustainable access to a better water source.</td>
<td></td>
</tr>
<tr>
<td><strong>Target 7d</strong> Significantly improve, by 2020, the living conditions of at least 100 million slum dwellers.</td>
<td>• Proportion of the urban population with access to a better sanitation system. • Proportion of households with access to security of tenure (as owners or tenants).3</td>
<td></td>
</tr>
</tbody>
</table>

Source: UNDP Official list of MDG indicators4

It will be noted that rural sanitation is excluded from the MDGs, since it appears neither in the targets nor in the monitoring indicators, unlike what obtains for “safe drinking” water. Only urban sanitation is retained among the targets and indicators, which, in this case, actually make reference to slum dwellers.

In addition to the targets and indicators mentioned above, and with a view to establishing a world development partnership, MDG 8 (under the section devoted to aid development) provides for monitoring the share of public development aid devoted to basic social services, including water and sanitation.

In each country concerned, the MDGs were set in light of the respective situations.

Hygiene and health promotion is being developed in drinking water and sanitation policies, strategies and programmes. In many countries however, this sector has hardly or not been taken

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3 The actual proportion of persons living in slums is measured by proxy, represented by the urban population living in households in which at least one of these four characteristics is present: (a) lack of access to drinking water; (b) lack of access to improved sanitation; (c) overcrowding (3 persons or more per room), and (d) make-shift housing

into account. For instance, a publication of the World Water Forum\textsuperscript{5} indicates that, up to 2010, there was no hygiene promotion strategy in Namibia.

Access to improved sanitation infrastructure in sub-Saharan Africa is still low. According to the UN (Graph 1), the coverage rate increased only by three points (from 28 to 31 \%) between 1990 and 2008. The set objective for 2015 is 64 \%.

Overall, coverage statistics do not take into account the effective functioning of facilities listed as constructed and their management, sustainability and development structures. Yet, there are wide disparities between announced coverage rates and actual access or utilization rates. The latter are systematically low, especially in the rural area.

The World Water Council report on the Right to Water\textsuperscript{6} emphasizes that “participatory approaches strengthen the notion of ownership and improve accountability and transparency in service delivery. Such processes ease the investment of micro-resources of individuals and the share capital of communities (...). Access to information and public participation is a right by itself…” National water and sanitation programmes and projects largely prioritize water, for various reasons. In this respect, the World Water Council “Straight to the Point” report highlights (page 78) that “Water generally takes precedence over sanitation in the policy programmes of governments. It also occupies a higher rank in the budget priorities of schools, places of work and clinics. Even though investing in sanitation at the same time as in water is significantly more beneficial than investing in water only, water sector constraints seem easier to finance than those of the sanitation sector: it is indeed observed that only 20 per cent of government expenditure and 37 per cent of international aid for the water and sanitation sectors

\textsuperscript{5}Catarina de Albuquerque, Virginia Roaf. \textit{Straight to the Point: Good practices for attaining rights to water and sanitation}. World Water Council. February 2012.

\textsuperscript{6}World Water Council. \textit{The right to water: from concept to implementation}. Written by Céline Dubreuil under the supervision of Paul Van Hofwegen. Undated.
are devoted to sanitation. This lack of resource commitment is explained perhaps by the fact that, in many cultures, sanitation is a taboo subject that remains unpopular both with politicians and town planners."

The report also notes that misuse of facilities (latrines in this case) can bring about negative effects on health, and related additional costs for households. Ensuring the hygienic use of sanitation facilities, therefore, presupposes investing in hygiene promotion.
B. Recall of study approach and objectives

The general objective of this study is to make overall, realistic and gender-specific strategic recommendations on the role of hygiene and health education in access to drinking water supply and sanitation services, and their use in the RWSSI context.

Overall, there are four specific objectives:

1. Analyse projects selected by OWAS in four target countries to evaluate the place of hygiene and health education in RWSS access;
2. Determine best practices for hygiene and health training;
3. Analyse the AfDB’s RWSSI operations in light of recommended best practices;
4. Define an overall and realistic strategy for future RWSSI operations.

In its first launching phase, this study was the subject of documentary review, during which projects selected by OWAS were reviewed in light of hygiene and health training aspects. It continued with field observations in four Regional Member Countries (RMC) selected by OWAS: Senegal, Burkina Faso, Tanzania and Mozambique.

Visits to the four target countries resulted in very enriching exchange of information and sharing of experiences. Four main languages were used (French, English, Portuguese and Swahili) to collect maximum information, with the support of national engineers. For this reason, the monographs will be presented in the respective three official languages of the four countries, namely French for Senegal and Burkina Faso, English for Tanzania and Portuguese for Mozambique. However, summaries of these monographs are presented in French in the “overall and retro-information” report, which followed field work and supplementary bibliographic reviews.

On the whole, qualitative data and information were collected satisfactorily. However, certain requests were unsuccessful, especially from a number of sources in Tanzania, and from some NGOs. We were, nevertheless, able to get the main policy, strategic and operational programming, and principle description documents; the hygiene, health and sanitation IEC/CBC tools recommended (National Manuals and Guides) and effectively used by stakeholders; as well as a good number of reports, including some impact assessments. The latter are actually relatively few, particularly in a sector as recent as rural sanitation. A series of cost data and descriptions of profiles and specifications for staff used in IEC activities was also collected.

It is worth noting that field work concerned countries where the AfDB intervenes through RWSSI, or countries that fulfil this Initiative’s eligibility criteria, especially the fact of having a national programme. Consequently, these are countries with a normally well-established national policy, with rules and guides for the implementation of programmes and projects, especially as concerns support activities. For instance, Senegal’s national programme (PEPAM) includes a “Water Project Manual” which gives indications on the manner of conducting mobilization, sensitization and training activities. Burkina Faso in its PN-AEPA has also prepared a “Collection of Reform Implementation Tools” which details its implementation methodology. Within the PRONASAR (Programa National de Abastecimento de Água Rural e Saneamento) framework, Mozambique,
whose objective is to harmonize activities in the sector, uses the "Manual de implementação de projectos d'abastecimento de água rural" in project implementation, irrespective of the financing.

Another important aspect introduced in the study is the fact that, on the field, the sites visited are real and operational (i.e. sites where operations are under way or sites where the infrastructure built and organizations set up (ASUFOR, WUA and others) are still operational). We were able to see what is functioning more or less, not what has fallen into disuse or what has disappeared. Yet, important lessons can and must also be learnt from these experiences. Furthermore, as revealed by the work presented in the "overall and retro-information" report, a good part of implemented projects face difficult days ahead. Their sustainability is far from guaranteed.

After these visits in the four target countries, monographic analyses were established. These are presented separately, in as many individual documents. In addition to presenting the national context and the water and sanitation situation, the monographs contain observations and lessons learnt from field work, a supplementary bibliographical review and the field experience of experts mobilized to draft them.

The "overall and retro-information report" reviews the outcome of the field work conducted in the four countries as well as the outcome of supplementary bibliographical reviews conducted, both for monographic analyses and additional information, including the experience of other countries and general documents. The bibliographical annex at the end of each monograph indicates the documents reviewed in the monographic framework, while the bibliographical list annexed to this report concerns documents reviewed in addition to general analyses.

After summarily presenting the conduct of the field mission, each monograph first takes stock of the status of the water and sanitation sector, its structure, legal framework, trend, and the main stakeholders. It then reviews the main projects carried out in the rural area in recent years, presents the main strategies used to implement hygiene and health education, and the way in which behaviour change and project sustainability are ensured. Summaries of each of the monographs have been annexed to this report.

From the findings made through monographic and additional studies, lessons were learnt, a diagnosis established and best practices in hygiene and health training highlighted and developed in the form of preliminary recommendations that were presented in the overall and retro-information report.

Taking advantage of this thorough documentary and analytical work, this report, or "final report" formulates strategic, programmatic and methodological proposals for the design, preparation and implementation of hygiene and health education operations and projects in the rural drinking water supply and sanitation sector in Africa.
2. Observations and thrusts

An overall and retro-information report provided a detailed analysis of observations and lessons learnt from the study, both in the four countries retained for case studies and through bibliographical review. These observations and the ensuing analysis broadly concern water and sanitation operations or projects. For instance, the observations focus more on the programming of operations or projects, infrastructure sustainability or management structures established by operations, and less on proposed technological solutions, at least in technical terms. However, the observations are interested in the manner in which these technologies are received by the population, if they meet their needs. The analysis concerns more particularly the methods, tools and resources (especially human) used in the social mobilization and hygiene, sanitation and health sensitization of the population. A reminder of the most significant observations and lessons is proposed here to establish the link, for the reader, with the strategic, programmatic and methodological proposals that follow.

2.1 Main observations

2.1.1 General observations

The first major observation is that similar to programmes, the population is more appreciative of access to water much more than sanitation, which remains the poor relation of national programmes, especially in the rural area. Sanitation appears to be a more easily approachable subject at the technical level, but it is a socially more complex venture, in which cultural and social considerations play a more preponderant role than in water - perceived as first priority by the population. Furthermore, operations in the rural sanitation sector are exclusively turned towards latrines (family sanitation or public lavatories, including those in schools).

At the operational level, we note a separation of stakeholders in terms of social mobilization, population sensitization and education between the subsectors involved (water and sanitation). Health is sometimes associated, but this is especially through recourse to local midwives (who generally are not institutionally attached to the health sector) and at times health workers in dispensaries (when they exist nearby, which is rare in the rural area).

Despite the use of participatory methods of social mobilization and sensitization of the population on use, maintenance, sanitation and hygiene issues, infrastructure ownership by the beneficiaries is often low. Lack of upstream planning, inappropriate technology supply, especially in the sanitation sector, inadequate involvement of village communities, absence of prior socio-

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economic and environmental diagnoses, and the weak capacity of local and regional authorities to monitor operations, despite the decentralization policies instituted, contribute greatly to this low ownership. Programmatic factors also play against the involvement of the population, especially the long delays in implementing operations that end up by demobilizing the population, while execution timeframes are short, thereby reducing the ability of operators to provide quality infrastructure and ensure effective support for the population.

Once the infrastructure is set up, the population expects project operators or local authorities to act when there is a breakdown or a shortage of resources. Yet, these partners do not often have the resources to provide the needed assistance. Generally, and despite the decentralization policies instituted for many years now, local or regional authorities do not have the staff or the transport resources to get to the population and support it materially or financially in case of difficulties, share the experience of other villages, give advice, etc.

Concurrently with lack of ownership, the sustainability of water supply infrastructure and sanitation facilities set up is relatively low, same as the management structures. In some cases, infrastructure construction quality is an issue, or the resource is inadequate and even unfit for consumption. In the sanitation sector, the weakness and inappropriateness of technology supply also contributes to lack of infrastructure sustainability, despite the population’s initial positive mobilization. Sometimes, technologies that are not accepted by the population are imposed. In certain regions, the latrine coverage rate is high and open air defecation limited, but the quality of lavatories is low and their lifespan inadequate.

However, these situations are not systematic. There are involved and available local authorities here and there, who have taken part operations implementation, and know their population and its needs. Similarly, user associations, with the support of personalities wishing to capitalize on the investment made, strive to develop private connections and maintain service quality and quantity. However, despite the training that they receive, the capacity of members of these associations or water and sanitation committees is generally inadequate to ensure the planning of actions to be carried out and guarantee the necessary investments. In any event, with the migration of active youths to towns and the high rate of illiteracy in the countryside, it is difficult to offset the low basic capacity. The inadequate resources put at the disposal of decentralized water and sanitation services also seriously affect their capacity to act to support the population, even though they are counted on by the people to help maintain and develop RWSS systems.

2.1.2 On participatory methods and IEC tools

The objective of activities to mobilize and sensitize the population on hygiene, sanitation and health issues accompanying rural drinking water and sanitation (RWSS) operations or projects in Africa, is to ensure the sustainability of the facilities and infrastructure built and the management structures set up to administer them. When necessary, these activities aim especially to change the population’s behaviour in water use, hygiene and sanitation practices (protection and sustainability of water sources and points, improvement of environmental and health conditions). The study shows that generally, sustainable behaviour is not achieved, especially because the sustainability of facilities and structures accompanying such behaviour has not first been established. This is due to several factors, including long project implementation delays that end up by demobilizing the population; lack of support and monitoring once the infrastructure project is completed; and infrastructure inadequacies in certain cases (because local conditions have evolved, or because projects have not been adequately implemented).
Up to recently, support activities have generally been neglected. They are poorly planned, resources allocated ill-adapted, and resources used at times inadequate. Particularly, one of the most significant observations is the lack of professionalism by Information, Education and Communication (IEC) stakeholders in the water and sanitation sector, with little or no training in teaching, especially in IEC, water supply and sanitation.

The participatory and interactive methods used to produce and communicate messages have also practically not evolved since their introduction in the 1980s. SARAR and PHAST take the lion’s share, accompanied, for some years now, by the Community-piloted Total Sanitation (ATPC) method in the sanitation sector.

SARAR/PHAST-type methodologies definitely help in arousing the population’s interest in the infrastructure offer that is made to them. This interest even helps them to mobilize themselves, for instance in the case of latrine construction for which they provide materials and labour, and even a financial contribution. With ATPC, the population itself is encouraged to construct latrines. However, such constructions are often too rough and ready and badly maintained to hold over time, soon reverting to the previous situation of little or no sanitation.

Getting facilitators and intermediaries involved is not a guarantee for project sustainability. Overall, their teaching abilities are not proven or certified – they have generally not received adequate training and, quite often, not even in technical fields linked to water and sanitation. On the other hand, they know the field and the population with which they are called upon to work. Yet, they constitute, potentially, very important human and social capital for the future of the systems established by operations. However, the stoppage of their participation at the end of projects is a serious handicap to the sustainability of said systems and management structures responsible for their administration. The interruption of the activities that they carry out with the population comes too early in the life of these systems and structures.

At the programmatic level, IEC activities are generally limited to the facility construction period, and at times to the preparatory period, during which resource persons of beneficiary communities are identified. However, there is no post-infrastructure project phase, and IEC activities end with the completion of the infrastructure construction phase, handover of facility ownership to local authorities and setting up of management structures.

Beyond the basic methodologies mentioned above, other methods are used such as theatre, broadcast of radio spots, etc. In schools, messages are also transmitted to students by their teachers trained in hygiene, sanitation and health issues. It is assumed that the sensitization of children will help get the message to their homes. However, the effectiveness of these strategies is questioned by the fact that in rural traditional societies, only adults decide, whereas in school, teachers unfortunately do not lead by example or always practice what they teach. Obviously therefore, there is a certain ineffectiveness in the messages, methods and tools used, coupled with the fact that such methods and tools have not evolved or barely so. ATPC tries to “shock” the protagonists, by causing violent awareness, particularly as concerns the damaging effects of open air defecation. However, the method and messages at times are somewhat “childish” or brutal, and the long-term effects are not well known. Available information also shows that it is necessary to adapt this method to the local setting to take cultural specificities into account. This is also valid for other participatory methods.

In certain cases, project operators, especially NGOs, conduct situational analyses (Knowledge-Attitudes-Practices or KAP-type) prior to the start of IEC activities and infrastructure construction, to better take the milieu into account when designing the methods to apply. This
ensures a finer adaptation of messages to the target population. However, these studies concern some stakeholders only. There is nothing systematic or standardized in them. In addition, they are not shared with the other partners and operators, thus resulting in a general lack of learning and capitalization of lessons learnt that is characteristic of the sector. In addition, these partners are often not the same for water and sanitation sector operations.

There are few available studies on the effects of participatory methods on behaviour and the medium- and long-term impacts of RWSS projects. Available impact studies concern the future of water infrastructure and management structures (user associations or water committees) provided by operations. They tend to indicate high rates of loss of operability of both. There is, however, no longitudinal monitoring of the beneficiary population and the evolution of its attitudes and practices. Nevertheless, lack of ownership of facilities and structures can be observed. Hence, it is still difficult to identify what is working and not working in hygiene and sanitation behaviour change. Yet, behaviour change is a complex venture that needs time, patience and continuity – the very things that projects mostly lack because of being essentially infrastructure-oriented. Its impact on the population’s health is also very difficult to actually measure, within the framework of only water and/or sanitation operations, because of the multifactorial nature of the health status. It is indeed difficult to attribute a health indicator variation only to a drinking water or sanitation operation. That is easier if the analysis is restricted to service, attendance and use indicators, which can give indications of likely trends on health indicators. In any case, the measure of the success of water and sanitation operations is done essentially through a count of facilities constructed, regardless of their future sustainability. A few indications on project socio-economic impacts are available, especially in the water sector, which show the transformative effects of access to drinking water, particularly the development of economic activities, settlement, and increase in income. However, the environmental impacts and the deterioration of public health conditions is also observed through the considerable increase in the quantities of wastes produced by the economic transformation noted previously. These issues are neglected to a large extent by rural WSS projects.

Furthermore, consideration of the milieu and crosscutting issues, such as those linked to gender or the environment is relatively neglected. Similarly, youths are not involved in operations, apart from those with a school component and certain activities entailing the use of theatre or sketches. In the case of gender, however, the integration of gender issues and the need for women’s representation in infrastructure management structures have been included in national programmes. Projects impose the inclusion of women in water and sanitation committees and user associations. Women are also often represented among community intermediaries recruited by projects to ensure greater continuity of communication and sensitization action with the population of beneficiary villages. Particularly, community (such as local midwives) or institutional health workers (e.g. health workers in dispensaries close to project areas) called upon to transmit hygiene and health messages is often female. It is also observed that, despite the fact that women are rarely placed in positions of responsibility in associations or committees, they are found after some time in posts of trust, such as accounting/finance.
2.2 Lessons and directions for the future

2.2.1 Lessons for operation and project adaptation

It is fundamental to design water and sanitation projects or operations in close collaboration with the beneficiary population, in all its components, including youths. Upstream planning must involve them, as should the choice of technologies retained. This planning must take the trends within the milieu and the environment into account, and anticipate future changes and the impacts of operations on the population. Communication with the population must include these important dimensions. This will enable the population to subscribe more closely to the technological and institutional solutions retained.

Setting, socio-economic and environmental studies must accompany the definition of needs and precede the design of answers to these needs. They must be made systematic.

The operation monitoring/evaluation framework is inadequate and needs to be developed. Monitoring indicators are focused on physical project implementation. However, indicators on the socio-economic dimension and practices are lacking. Impact indicators currently focus on health, whereas the latter is multi-factorial. This needs to be reviewed. The monitoring/evaluation framework must also be developed to ensure greater project capitalization. Exchange of data and experiences between partners and sectors is lacking. In particular, public authorities and their partners must be mobilized to ensure the development of capitalization.

Participatory and interactive methods must be easily adaptable to the local setting, which is highly diverse and variable, both in socio-economic, cultural and environmental terms. Socio-economic and cultural specificities must be taken into account because they are, potentially, an obstacle to proper implementation and ownership of systems and institutions generated by infrastructure projects. In addition, the methods and tools used, whose effects are not quite well known, must evolve and be studied, so as to retain their efficient aspects and set aside the aspects that are not, while opening the methods to new arrangements and techniques or tools. The use of techniques such as theatre, sketches, audio-visual tools, exchange and sharing of experiences, radio messages and others, must be encouraged and developed.

The population must especially take part in technological choices that provide practical answers, and whose expression must come from prior studies.

The involvement of national, regional and local authorities must also be strengthened, at the policy, programming and operational level, in support of the population. Adequate resources must be allocated for this purpose - which is generally not the case.

It is important to associate the various sectors or subsectors involved in hygiene, sanitation and health issues (health, education, water and sanitation, etc.), more closely, both at the institutional and operational level, and especially avoid differentiating “water” operators from “sanitation” operators among project stakeholders.

The use of facilitators and community or village intermediaries should probably be reviewed. Their continued involvement, including through committees or user associations set up in operations is essential, in any case. An IEC component should form part of the mandates and actions of these committees or associations. Greater professionalization of their intervention must be envisaged for this purpose. This requires developed professional supervision, with more solid training, through the setting up of professional associations that can certify their skills.
Support must be systematically envisaged beyond the completion and handover of physical infrastructure. The process of behaviour change and ownership of systems requires time and this time is not generally taken. Therefore, there is need for a phase for continued sensitization and mobilisation activities, continued IEC activities with the population and support for management structures. This phase must also take the form of a gradual withdrawal to enable the management structures and authorities accompanying them to carry out their mandate and missions over the long term.

2.2.2 Directions of proposals

It follows from the main lessons learnt from the study that actions must be taken at several levels to adapt methods and tools, and improve the way in which operations are implemented. This concerns programming of activities, their implementation methods, the monitoring/evaluation system, and planning of resources to be mobilized.

The sectors in which operations and specific actions seem particularly necessary in future are:

- The review of operation or project programming and phasing, and especially support components. This entails especially:
  - Upstream planning development (local water and sanitation plans);
  - Development of the project or operation initial or preparatory phase, especially through preparatory studies to better identify local partners, identify the socio-economic and cultural implications of operations, and develop the population’s participation;
  - Development of a continuation, support and gradual withdrawal phase, after the handover of infrastructure to management entities and local authorities.
- The diversification and adaptation of information, education and communication techniques and tools (use of varied and innovative communication vehicles as a supplement to SARAR/PHAST and ATPC-type participatory methods).
- The professionalization of facilitation, mobilization and social marketing trades, especially facilitators, by building the capacity of stakeholders, including intermediaries when they are used, through training and even certification. This concerns operators or stakeholders as well as members of user associations of various committees.
- The development of capitalization and especially monitoring/evaluation and sharing of experiences, exchange of information and data. This entails especially:
  - The development of a strengthened logical framework;
  - The inclusion of evaluation activities (mid-term, impact, etc.);
  - The development of experience sharing and case studies, the strengthening of study and research activities;
  - The development of national and international data banks.
- The targeting of resources to be mobilized to ensure the attainment of these enhanced objectives and tasks (budgets reflecting estimated needs), whereas the importance of support activities (mobilization and social marketing, hygiene sensitization and education, sanitation, health, as well as supplementary training) will continue to grow as physical coverage rates increase.
The following sections develop the strategic, programming and methodological proposals, which should practically help improve the manner in which hygiene and health education operations in the rural water and sanitation sector are implemented, as well as match technical solutions with expressed needs, the level of ownership and, ultimately, the sustainability of their impact.
3. **Strategic proposals for the AfDB – RWSS sector**

The observations made in the study, as systematically presented in the previous section and in detail in the overall report, lead to a series of concrete proposals, both of strategic, i.e. not directly linked to specific operations, and programming or methodological, i.e. linked to these operations. Strategic proposals are presented in this chapter. Programming or methodological proposals are detailed in the following chapter (methodological proposals for operations).

The strategic proposals that follow are to be essentially envisaged for the AfDB, in its support to the water and sanitation sector’s institutional development. For instance, financing for these operations can be envisaged through the African Water Facility (AWF) or the African Development Fund (ADF), outside the RWSSI which only finances rural drinking water supply and sanitation projects. The following chapter deals specifically with the activities to be carried out in these projects, in the area covered by the study. The proposals are divided into two: proposals on the strategic intervention areas to be strengthened and proposals of study areas to be explored to develop essential knowledge for better strategic and operational programming.

### 3.1 Strategic intervention areas to be developed

#### 3.1.1 Development of context knowledge – upstream activities

During the operation preparatory phase financed by the AfDB or other donors, through national programmes or not, field data is often lacking as concerns the sociological and/or anthropological profiles of the population and the setting in which these operations have to be implemented. Even if it is difficult to envisage a general project anthropological study, it is recommendable to have a representative sample of the population as a guide for operation definition and establishment.

KAP (Knowledge, Attitudes, Practices)-type studies should also be systematically incorporated into the projects, or be available to help in better specifying the population’s needs and defining the proposal to make.

#### 3.1.2 The creation of national and international data bases:

A need was clearly identified by the study (and clearly expressed by many respondents) to ensure exchanges with other professionals of the sector, develop knowledge, learn from each other, know what others have learnt from their experience, what has worked or not, and why, and benefit from lessons learnt elsewhere. In their diversity, the stakeholders are looking for guides based on reality, concrete cases, and lessons to be used for their own activities. They are looking for recommendations. Therefore, it is important to be able to include, in the national programmes and operations, activities that enable stakeholders to share their experiences, share these lessons, and discuss the solutions applied. Consequently, meetings in various forms should be organized for the purpose of these exchanges.
In addition to these activities, it would be appropriate to develop databanks or bases accessible to everybody, and where a vast community of participants could bring, exchange or find the necessary documentation. Each country (or at least each national programme) should have such a base. In addition, exchanges between operational stakeholders and those coming from institutions involved in operation planning and monitoring in national programmes, would ensure the necessary capitalization that for the moment seems to be lacking.

DWSS project or operation preliminary studies, whether they are of the KAP, socio-economic or other type, should be found also in these data banks. They are too often not disseminated and remain in project files, whereas they could be of help to others. This also applies to materials and procedures used in hygiene, sanitation and health education sensitization activities.

The availability of all these works in national bases, side by side with statistical data collection and monitoring/evaluation systems (see point specific to this topic), would also help take stock regularly of the population’s needs, initiate new operations and gain much time and resources on preparatory works that are too often repeated. In many cases, it will suffice to update the available data rather than repeat an entire long and costly process. In addition, a database would be more easily available to measure the operation’s level of progress. International funds, including the ADF and the African Water Facility, should support the setting up and development of maintenance and operation arrangements for these databases.

An international data base or bank, at least pan-African, should also exist to enable national bases to communicate and exchange information, and operators to have access to resources coming from other countries and horizons. This is an opportunity, more particularly for the AfDB. The AfDB databank should be accessible from its website, through its page on the Rural Drinking Water Supply and Sanitation Initiative (RWSSI). It should have a series of directly accessible resources, produced by the AfDB itself and its country offices, especially through projects and operations or programmes financed by the latter, and also indirectly, through links to other resources. Among the latter, we can envisage national programmes (such as those of the four countries visited under this study: PN-AEPA in Burkina Faso, PRONASAR in Mozambique, PEPAM in Senegal, and WSDP in Tanzania), other donors such as the World Bank (including the WSP) and the European Union, and a series of national or international organizations specialized in the issues handled, including NGOs such as WSA (former CREPA), ACRA, WaterAid, etc. Needless to say, the AfDB website should also refer to sites of national databanks, when such exist.

These databases or banks must be interactive. They should contain:

- Lessons learnt;
- Best practices;
- Country monographs;
- Case studies;
- Costs;
- Methodological guidelines;
- Teaching materials used for IEC;
- Activity reports of specific programmes and operations;
- Impact assessments;
- Preparatory sociological and economic analyses for operations;
- KAP-type studies, etc.;
- Various other publications on water supply and sanitation policy and programme implementation, hygiene and health promotion, monitoring and evaluation methodologies, etc.

Beyond the challenge of setting up and harmonizing these “databanks”, efforts must concern regular monitoring that will help update data and provide raw material for the project or operation preparatory phase. Efforts should be devoted to enriching national databases on other sectors (health, poverty...), so as to help design more realistic indicators on the evolution of standards of living or the level of improvement of living conditions. Too often, projects and programmes target the improvement of living conditions, as a general objective, without laying emphasis on the means and methods that will help measure real progress or the specific contribution of certain sectors considered as priority sectors (drinking water, sanitation). Lastly, resources must be mobilized to ensure regular monitoring of documentation, research and information dissemination efforts. It is not enough to set up a database, or extend access to resources through internet links. These information and knowledge-sharing efforts should be sustained. This would presuppose not only making dedicated resources in staff and routine means available to the RWSSI, perhaps through the African Water Facility, but also organizing sharing meetings, colloquia and seminars at regular intervals on issues covered by these databases, at the country, sub-regional and even continental level. The theme is sufficiently important, and even crucial for operation sustainability, to benefit from special professional facilitation. The recommended creation of professional associations of facilitators, supervisors or coordinators, ties in with this proposal.

3.1.3 Support to professionalization of facilitator/attendant/supervisor trades

It appeared through the analysis that RWSS operations must receive the support of multidisciplinary staff and that it is essential to further professionalize IEC/CBC activities by using stakeholders (supervisors, facilitators, and even project managers) with the necessary expertise, both in water and sanitation, hygiene and health, and teaching. This cannot simply be improvised. Therefore, the level of professionalism expected from engineering activities should also be expected from hygiene, social mobilization, sensitization and education activities, health and sanitation. The facilitators and supervisors must have expertise as solid as possible in at least one of the following areas: socio-economic analysis, sociological and/or anthropological analysis, economic analysis (local and rural development in particular), hygiene and sanitation, behaviour change. The required profiles must include the “training” and “social communication” dimension with the function reserved for community intermediaries. These stakeholders must no longer be restricted to putting pre-defined strategies and approaches (terms of reference, technical offers of service providers, pre-configured tools...) into practice. They must have expertise and aptitudes that enable them to have a more realistic and objective reading of the environment in which they operate, and be endowed with abilities of their own to adapt their views and actions according to the evolutions noted and constraints identified. Therefore, it is essential for these persons to have solid analytical qualities and teaching abilities.

Consequently, to ensure greater ability to transmit information and its entrenchment in the population for which RWSS operations are destined, the professional aptitudes of stakeholders must be guaranteed. In light of this, adequate training must be available and used to upgrade this staff when necessary. Furthermore, this is included as an adaptation proposal for project or operation implementation in the subsequent chapter devoted to that subject.
Unfortunately, there is only very little of such training in Africa for the moment. Burkina Faso, Mozambique and Senegal, for instance, have training schools. However, as shown in the monographs on these countries, the training is not adequately used for water and sanitation operations. The current training is often based on intervention sectors (health, drinking water, sanitation) and not sufficiently on communication and education techniques and methods. Therefore, it is necessary both to develop training resources and to insist in project terms of reference on the need to use it for staff involved in IEC activities with the population. Minimum levels of experience and training should be required by operation principal contractors for the staff in charge of these activities (attendants, facilitators, "activists", supervisors, promoters, etc.).

This leads to a suggestion to the AfDB to support the development of “Community Participation and Education”-type training throughout the continent (the title given in Mozambique’s Community Training Centre set up in 1980). It would be appropriate to include support to development of training capacity in AfDB aid programmes, especially through the African Water Facility or other initiatives in the health sector, for instance.

A suggestion is also made below (in the section devoted to future areas of study) on the adaptation of training courses.

3.1.4 Support to local planning

Local water and sanitation plans are generally not adequately developed, and even non-existent. Yet, they constitute the indispensable opportunity to take stock of the situation, needs, obstacles and opportunities, review the setting and undertake context analysis (for instance, KAP-type analyses). Their preparation is also a unique opportunity to involve local authorities in RWSS development-related activities, develop their advocacy with regional and national authorities and financiers, and create upstream consultation on priorities and resource allocation - a guarantee for project and programme ownership. To support these processes, local authorities must be trained in advocacy. Otherwise, these local development plans (PCD-AEPA or LWSP) are not finally used by local councils. Furthermore, it is important that projects be designed in close relation with the beneficiary population. Sanitation projects should be designed with everyone’s involvement (authorities, operators, contractors, the population, NGOs, consultancies), and planned upstream. This is all the more necessary as the setting evolves fast and it is imperative to plan forward, depending on local and regional demographic, economic, hydrographical, environmental aspects, etc. There is an all too often tendency to see the short term, especially if focus is solely on the MDG horizon, i.e. to the needs of a population by 2015 maximum. Yet, infrastructure investment goes well beyond this date. In addition, local planning hardly takes into account water resources, whose increasingly integrated management (IWRM approach) is essential for rational use, guaranteeing sustainable quality drinking water supply. The sharing of water resources among several uses constitutes a current concern in terms of providing users with a resource in sufficient quantity and of acceptable quality. However, only few such plans are available. It is therefore recommended that the AfDB (and other donors as well as national programmes) finance the development of these local plans. This need not necessarily be done within the strict framework of a RWSS operation. It can also be envisaged as an operation in itself, or as part of institutional support. Further, this intervention must promote better coordination between the various planning levels and should be part of an overall strategic and operational planning approach.
3.1.5 The development of sanitation in all its dimensions

The study shows that entire sections of sanitation are neglected in rural areas, whereas access to water is developing there rapidly. With this access, new economic activities are developing, whereas sanitation infrastructure, which must accompany them, is lacking. Waste disposal, water retreatment, and collective sanitation are still totally neglected, including in the semi-urban areas. The retro-information report has illustrated the environmental damage noted in some of the rural sites visited. Unfortunately, urban centres are also affected. Therefore, it is urgent to tackle collective sanitation and environmental protection issues in the rural areas. The AfDB should strongly encourage investments in this sector, and mobilize institutions and governments.

Concurrently with institutional and investment activities, it is essential to envisage the inclusion of these problems in the IEC implemented in RWSS operations and projects. Henceforth, household sanitation is no longer enough to tackle rural sanitation problems and ensure sustainable development for the population and territories.

3.2 Areas for further studies

- Finally, we do not know very well what works and is not working in IEC (what leads to permanent behaviour change?) through lack of longitudinal and impact studies measuring this change and its causes. It would be interesting to be able to support such studies, either as part of studies themselves, or separately, but in conjunction with specific operations. For that purpose, basic data must be available (situation before the operation’s implementation). Data collection must be the first stage of such studies. In operations themselves, the monitoring/evaluation system should help collect the necessary information for analysis of these specific studies that would be conducted afterwards. The investigative approach must include the population’s perception, quantifiable evolutions (will to acquire the facilities, facility construction, and hygiene and prevention behaviour change, etc.) and measurable effects and impacts.

- Similarly, sanitation and hygiene sensitization methods and techniques would, to a large extent, need to be re-examined. For instance, criticisms against ATPC are many and understandable because of its shocking nature. SARAR/PHAST methods have not evolved or barely so since their launching. It would therefore be necessary to organize expertise meetings on them, conduct field studies in various sites, to observe the effects of techniques used more closely, and make concrete proposals for developing new methodologies or adapting existing ones that have been used consistently for more than twenty years. There is a clear need to renew IEC, social marketing, sensitization and education methods and techniques, taking into account trends noted on the ground, with project partner communities.

- The same sites are always studied, and these are essentially those where there is still something positive from past operations. However, we should understand what contributed to failures elsewhere (and there are many!). Hence, it is essential to observe and analyse the reasons for these failures. This presupposes visiting the communities concerned and making a diagnosis. Although a lot is learned from failures, they are not or hardly capitalized on after operations are implemented.
As concerns sanitation, we observe that many pit latrines are dug throughout the continent, especially after ATPC activities, but they are generally of poor quality and either collapse quickly with the first rains, or are not maintained. This is due mainly to the configuration of latrines, made up most often of a simple hole in a slab. This greatly limits the sustainable use of these rough and ready facilities. It is time to make a change, improve the technical supply and propose solutions to the population that are more consistent with its needs and its technical absorptive capacity. This will especially entail preliminary studies that should note these needs and highlight them through field work with those concerned. There is a real need here to document future sanitation solutions.

An analysis of the impact of water and sanitation projects or operations on the health of the beneficiary population is a difficult and complex venture, which presupposes isolating multiple factors from the fact that the state of health, by definition, is a multi-factorial area. Therefore, the resources to be used to assess these impacts are inevitably substantial and costly. They presuppose thorough surveys (including field and household surveys), the use of complex statistical tools, the development of prepared protocols for studies, and a peer review of these methods and the outcomes of their application. This is not a routine venture, even in water and sanitation operations with substantial budgets. That notwithstanding, it is possible on a representative sample, to envisage the conduct of limited studies according to the terms mentioned above, to help document the likely effects of water and sanitation operations on the health of a given population in selected countries. This would contribute to increasing the knowledge on the likely impacts, the conditioning factors, etc. General assessments can then be drawn from there on the reasonable expectations on the impact of operations within a pre-established context. However, contexts do evolve. It is therefore reasonable to be cautious in using the outcomes deemed scientifically valid.

The content of training in the use of IEC methods and tools (participatory and interactive methods and other instruments) must be developed and adapted according to regions, areas, community habits, etc. Within the same country, identical tools are generally used. In the same region, however, the population’s habits and behaviour may vary from one village to another. Because of the low number of training institutions in the water and sanitation sector, apart from engineering training, it would be necessary to make an inventory of the resources currently available in all countries, consider them by sub-region (especially by main linguistic groups – English, Arabic, French, Portuguese, Swahili, etc.) or by main regional economic sub-groups (ECOWAS, SADC, EAC, etc.), analyse the content of available training in techniques and participatory and interactive tools (SARAR/PHAST, ATPC and other methods) and make adaptation, curriculum development, organization and training financing proposals, etc. This area certainly deserves to be given urgent and dedicated attention. Furthermore, this should be linked to the proposal made above on the need to review IEC methods and tools.

As suggested in the preceding section (strategic proposals), the consideration of collective sanitation problems in rural areas has become a pressing issue. Yet, messages carried by IEC in rural water and sanitation operations and projects do not take them adequately into account. In light of this, it would be necessary to include these problems in the participatory methods, the tools used and the messages transmitted. This will require an adaptation of methods, tools and messages. This work must be started and supported by the AfDB and its partners (governments, other donors, institutional partners, stakeholders on the ground) as soon as possible.
4. Programming of hygiene, sanitation and health IEC activities in rural WSS operations

In this chapter, programmatic and methodological-type proposals are made on the implementation of rural water and sanitation operations or projects.

We here regroup the proposals to be adapted in the conduct of AfDB-financed operations. In the following chapter, all these proposals are set out in the form of a logical framework. The programmatic and methodological proposals have a practical objective, to allow for their direct use in operation and project design and implementation. They are presented according to operation phasing (corresponding to three phases). The stages and activities carry a codification which refers to the codification in the logical framework. To make reading simple, only the main activities are codified in the text. Nevertheless, activities may be accompanied by secondary activities, indicated more clearly and with a specific codification in the logical framework.

To begin with, it should be indicated that projects must provide for a post-infrastructure construction monitoring and consolidation phase. This phase can also be called the "disengagement phase", or "withdrawal phase", etc. What matters is to ensure both the consolidation of operation achievements and their sustainability, as well as make a gradual withdrawal, enabling the population using the structures set up to not be deprived too early or suddenly of essential support.

It is necessary to insist on the importance of making a monitoring/evaluation system operational. The main objective of such a system is to provide information on the operation’s progress and regularly measure its ability to achieve the objectives that were assigned to it, including in terms of short- and medium-term impact. It may be held that a good monitoring system, if consolidated and maintained in time, helps to envisage a long-term measurement of these effects and contributes to capitalization and management. The development of a monitoring/evaluation system, and especially the identification of indicators to be retained, is proposed in the fourth sub-section of this chapter.

Note: To ease the reading of concrete proposals, we have coloured them according to the proposed project phasing. The colours are repeated in the logical framework and the indicative schedule proposed in the subsequent chapter. Hence, this provides a rough methodological guide for the implementation of the logical framework and the schedule.
4.1 Phase 1: Project or operation preparatory phase

The preparatory phase covers the identification stage of the operation or project to be financed, the technical definition stage and the deployment stage. This phase is crucial for the proper conduct of the overall operation, and for the future sustainability of structures set up.

It includes a series of activities directly under the AfDB’s responsibility (OWAS department in particular), in its initial phase. During the first stage, AfDB internal procedures and resources mostly apply and are implemented. In the second stage (definition), an appraisal mission (more correctly a definition or investigation mission) is conducted on the ground by external consultants recruited for the purpose. Field work really starts from the third stage (operation or project deployment).

4.1.1 Operation identification

The first stage (E.1.1) of the preparatory phase (the operation identification stage) directly involves the AfDB (OWAS), which conducts a feasibility study leading to an internal process in the Bank for the operation’s approval.

The first activity (A.1.1.1) of this stage, or feasibility study activity, involves an identification mission conducted by OWAS itself, which leads to a brief report (one week after the mission).

At times, this activity is followed by a “preparatory” mission, which leads to a more detailed report (15-20 pages), three to four weeks after the mission.

This mission’s responsibility is to discuss the main aspects concerning the project to be carried out with the identified country’s government (the priority contact is the governor minister\(^8\)). Its main aim is to:

- Identify the sector constraints and weaknesses with a view to defining a project based on solid foundations;
- Identify the project area and justify its choice;
- Formulate the project: (i) cost, (ii) financing plan, (iii) implementation duration, (iv) institutional arrangement (the structure to host the project, including the possible need to strengthen it or set it up), (v) sustainability issues (cost recovery, type of facilities, institutional support, IEC support);
- The operation’s logical framework is also prepared during this stage.

The mission is also responsible for defining, with the government, conditions precedent to the launching of the subsequent stage (an “appraisal mission”).

After this first activity, a “concept note” (5-10 pages) is prepared. It defines the operation or project components. It is then submitted to various organs of the Bank for review. AFDB approval is necessary at this stage for the launching of the subsequent stage, during which the project is defined more precisely. Four to five weeks are needed to reach the last level of the first stage. Therefore, this stage lasts approximately two to three months.

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\(^8\) The “governor minister” is the member country’s government minister who is the country’s AfDB governor.
4.1.2 Operation definition

The second stage, or operation definition stage (E.1.2), leads to an appraisal mission (A.1.2.1) conducted by consultants recruited for the purpose. It refines all that was defined during the identification stage. This stage then leads to an internal approval process (A.1.2.2) which validates the financing to be mobilized (or not). This process, based on an appraisal report, involves several levels, including the OWAS department, the team covering the sector in the field office, as well as an external review. Some six weeks are needed for all these reviews.

All the stages and activities are placed under the responsibility of the “task manager” appointed by OWAS.

4.1.3 Operation deployment

The third and last stage, or operation deployment stage (E.1.3) leads to the bid invitations directed at operators (consultancies and other agencies) responsible for conducting activities, by the project or operation beneficiary government (A.1.3.1). This does not yet include contractors responsible for executing infrastructure works because the project’s infrastructural and technical specifications still need to be finalized with the prior intervention of operators.

Facilitators and supervisors are recruited as from this stage. Provision should be made for them to receive refresher training (A.1.3.2). The professionalization of these trades is, indeed, an important recommendation drawn from the study (see the following methodological proposal for the operation deployment stage).

4.1.3.1 Methodological proposals for the operation deployment stage

Prior study or investigation:

During this third stage, it is proposed that a prior study or investigation activity (A.1.3.3) be systematically included, as soon as contracts are awarded, with a view better preparing the inception of infrastructure construction and social mobilization activities, sensitization, education and training. These are all brought together in the second operation phase or implementation phase described below. This study activity should comprise:

- A socio-economic analysis of the population and the context in which the activities planned will be implemented (or at least the updating of existing studies, where recent ones exist);
- A KAP-type sociological analysis, for instance (description and analysis of the knowledge, attitudes and practices of this population in terms of water, hygiene, health and sanitation), or in any case the use and the updating of existing studies, where necessary;
- Forward projection, which envisages the most likely scenarios for evolution in future demographics, socio-economics, water and sanitation needs (including the likely expected effects of the operation envisaged). This work must highlight the operation’s opportunities and risks for the population. This is a necessary means towards implementing risk mitigation measures and making the most of opportunities. Any operation in the development sector inevitably has both positive and negative consequences on other sectors. Such consequences must be envisaged and anticipated.
A stricter economic, even financial analysis, of the costs-profits and costs-efficiency ratios to show the medium- and long-term interest of the investment for the population and various partners. This analysis must also take the previously mentioned forecast work into account.

The identification of technological needs and solutions, especially as concerns sanitation. This must be done in close collaboration with the population, more so with their own representatives, to determine what solutions, among those already existing, would be better adapted to the population’s expectations and technological absorptive capacity. Several operational scenarios can be envisaged at this juncture, especially as concerns sanitation:

- The construction of “model latrines” or decentralized centres for demonstration of sanitation facilities. It should be noted that certain countries (e.g. Tanzania) have abandoned this practice deemed ineffective. In contrast, others use and consider it suitable for the population’s involvement and better technological choice.
- Media presentation (including films) explaining the use as well as the benefits and disadvantages of various solutions.
- Visiting of households to discuss with a sample of them (which may be proposed by community intermediaries, the population’s representatives and/or facilitators) with a view to determining the most suitable solutions, those that will receive the most support, participation and contribution (financial, material and otherwise), and those that would ensure sustainable maintenance and greater long-term durability.

The purpose of these studies is to reach as accurate a diagnosis as possible of the context and trend, with a view to deciding on the most appropriate technical (infrastructure) and methodological (IEC) solutions to meet the needs identified in the context described.
Study outcomes include:

- Identification of resource/key persons and facilitators on the ground, within beneficiary communities;
- Analysis of practices and attitudes vis-à-vis water (its sources, its uses, who is involved, beliefs, needs expressed), hygiene (how it is viewed, who is involved) and sanitation (how people relieve themselves, where, and how wastes are evacuated, etc.);
- Projection of demography, the population’s composition, and water and infrastructure needs over a period of at least 5 years (10 years, if possible);
- Analysis of the local economy, its possibilities of evolution, the likely impact of the implementation of a water and/or sanitation operation on this economy (establishment of an assessment of effects – both positive and negative);
- Identification of disadvantages and benefits of the operation envisaged for the population, to develop as inclusive an advocacy as possible;
- Determination of the most appropriate technical solutions – both for water and sanitation;
- Determination of structural and legal solutions and envisaged technical arrangements for the management of facilities to be constructed (user associations, hygiene, sanitation and water committees, regional federations, etc.).

### Example of configuration of the study to be conducted

In the economic and forecast analysis, a study and an economic, social and environmental assessment of water and sanitation (depending on the project) could be conducted. This work should concern first the costs and benefits of the current situation: “you use water from the well, river, lake or another source; you think that it is ‘free’ and that it must remain so, but, in reality, it costs you – based on real practices, use of chlorine bleach, and other ‘in-house’ water purification methods; and then there are induced hidden costs: you spend a lot of time on water chores (opportunity cost) and water makes you ill (loss of productivity and direct costs linked to the illness – treatment); overall therefore, the cost of this water is high, much more than you would imagine (and an estimate should be given).” Then a forecast economic impact assessment of solutions proposed would be made in terms of reduction of direct and induced costs, hidden costs, cost of purification methods used, sanitation, etc. “This is the assessment, the cost-profit report of various possible options, what do you think? What do you prefer” (choice which obviously must include other determining elements such as social and cultural considerations, etc.).

Given the implications that water access development has on resources and the environment, it would also be very important to present the operation or project’s “environmental assessment” to the population. Indeed, tapping ground resources or surface water means bringing pressure to bear on these resources. Even though ground water is renewed with rainwater (contrary to fossil water), this renewal is not guaranteed if water collection is too high or rainfall diminishes. Yet, the on-going rapid climate change causes very serious variations of humidity, rainfall conditions, etc. Therefore, it is crucial, for the medium and long term, to present this assessment because the population’s awareness and involvement will play a major role, side by side with policies, in the resource’s management in all its aspects and uses (the application of IWRM at the community level).
Population’s support for the project idea and its participation in project implementation and sustainability beyond the construction phase;

Preparation of the principles and main characteristics of project/operation implementation, including its support and monitoring/evaluation arrangements.

The population wants to be involved in technological choices, and the configuration of the structures to be constructed to ensure their continuity. Hence, there is need to use participatory and interactive methods as well as conduct studies that strengthen the sensitization and mobilization of future beneficiaries. Therefore, studies should aim at giving these persons food for thought and decision-making. Their purpose goes beyond informing decision makers and financiers, who are placed outside the village setting.

The findings made during these studies could lead to proposals for final modifications or provision of further details in the operation’s technical specifications, its implementation plan (schedule, necessary resources, sequence of operations), perhaps even a partial revision of resource needs and the budget. This work will also help to specify the operation, framework, monitoring/evaluation and impact measurement indicators, and establish the baselines (departure levels of indicators). In particular, the monitoring/evaluation system and framework so described will help to conduct analyses of the impact and change factors noted (change in behaviour, practices, etc.) at the end the implementation phase. Thus, the monitoring/evaluation system and framework will lay the foundation for the operation’s preliminary longitudinal follow-up and, consequently, continuously feed national databases on the sector, including for the calculation of effective coverage rates. A preliminary and incomplete list of monitoring and impact indicators is proposed in the logical framework, which follows this section. A list of possible indicators for impact monitoring and measurement, which appears automatically in the tabular version of this logical framework, is also placed at the end of the methodological presentation of the first phase.

The activity covering the studies mentioned above will, among other things, imply field work conducted throughout the operation area (expected solution) or on a representative sample of rural communities targeted by the operation. Household surveys will be necessary to provide information especially on hygiene and health practices, project objectives, needs, the demand expressed in reply to these needs, and the proposed and possible technological choices. A four to six-month period must be retained to successfully conduct the surveys. This will be the opportunity to start raising awareness and mobilizing the population.

Studies conducted should be the occasion for identifying key persons/resources targeted by the projects (including local authorities), and to start involving them. This is not social mobilization; its purpose is to better prepare the operation in its entire sociological, economic and political dimension. A development project is a transformational event and experience, more so for water and sanitation. Hence, it is necessary to prepare it with care and involve the population’s representatives (or at least those who are most sensitive to the issues raised) as soon as possible. This initial investigation and sensitization work may also include the identification of potential community intermediaries.

With this crucial activity, information acquired during the identification phase will be prepared. At this stage, the project can already know the needs, expectations and availability of the identified population. It will also have established a context-friendly and adequate operation methodology.

In most cases, the expressed demand for facilities largely exceeds supply. The difficult choice of identifying a village as compared to another is normally the project’s responsibility.
This activity’s outcomes will be essential to ensure an accurate and rational identification of facility beneficiaries proposed by the project.

This will be the last activity (A.1.3.3 of the Logical Framework) during the preparatory phase, and a prelude to the start of the implementation phase.

### 4.1.3.2 Necessary resources:

The activity linked to studies requires the use of a series of expertise, part of which will later also be used for social mediation during the implementation phase. Therefore, the following expertise and profiles will be necessary:

- A socio-economist (in charge of the operation’s “support” or “soft” component);
- An economist (specialized in investment and output calculation, cost-profit and cost-efficiency issues);
- A sociologist or anthropologist;
- An engineer for technological aspects;
- Facilitators and supervisors.

These persons must know the context beforehand and be able to communicate with the target population with as little difficulty as possible (for this reason, mastery of local languages is necessary). They must have proven technical expertise.

In addition to these persons, vehicles and per diem should be made available for an adequate number of mission days on the ground. In particular, context and KAP-type study requires a significant presence on the ground.

Since a greater presence of facilitators on the ground is recommended, intermediaries must be restricted in number. Wherever possible, a local midwife or health worker (community health worker or health worker of the closest dispensary, health outreach or centre, community sponsors, etc.) must be involved, in agreement with local health authorities. The use of “community intermediaries” simply selected from among the population may sound a good idea, but experience shows that this is not always true. The recommendation is that this should be done only on a case by case basis. In principle, these persons are not paid and are obliged, as soon as the project ends, to quit their “hygiene and sanitation promotion for better health” activity, for lack of material resources (they are no longer given per diem or at least some funds and materials to organize presentations that usually only attract women only...). In addition, for greater professionalization of promotion and IEC activities, the use of voluntary service can only be seen as a solution of last resort, in case of lack of capacity for frequent presence of facilitators and other project staff. Economizing financing on facilitators (through low quality recruitment and lack of staff) and thinking that intermediaries will do the job, can prove disastrous.

The implementation of preparatory investigation or study (sociological, economic) should directly involve resource persons and future project stakeholders, including facilitators, attendants, potential supervisors, the same as potential “intermediaries” (especially health workers), “activists” or “hygienists”, depending on the names used in different various countries. Among other things, this would ensure an adaptation period for such staff, before the effective start of mobilization, sensitization and education work that will come during the operation's physical implementation. Their participation in initial studies can prove useful because it would give them
the opportunity to have first thorough contact with the population, thus taking part in the definition of technical solutions that will be retained, and whose implementation they will support from the social, economic and cultural standpoint.

Therefore, this presupposes prior recruitment of facilitators (and supervisors to supervise them, depending on the number of village communities targeted and projects planned). Examples of profiles of facilitators are provided in Annex 2. The use of intermediaries (most often women), from the villages themselves, should also be envisaged (see the comment on intermediaries opposite). Examples of profiles of intermediaries are provided in Annex 2. Where possible, the intermediaries may contribute to initial studies, especially if the persons are well known to the population, know the population themselves and can support household survey work, and if they play an important social role (village facilitators, health staff, etc.).

Supplementary training to what they have already received must be envisaged for supervisors and facilitators, especially on water and sanitation techniques and Integrated Water Resource Management (IWRM), if they have not yet been sufficiently exposed to such concepts. Support activity operators (consultancies or NGOs) must be able to evaluate the initial and performance capacity of facilitators before recruiting and, possibly, training them.

Four to six months are probably needed for all the activities at this crucial stage of the project or operation. At the end of the process, it will be necessary to envisage a review stage for the findings of studies conducted, first under the responsibility of the AfDB field office, and then that of the OWAS task manager. This will be necessary because project adaptation proposals will come from these studies. As indicated above, these proposals will concern adaptations of implementation technical arrangements, and even resources to be mobilized, compared to the version proposed in the appraisal report at the end of the previous stage (operation definition stage). They also concern the monitoring/evaluation terms and framework. Hence, an AfDB approval will be necessary at the end of the operation or project preparatory phase.

4.2 Phase 2: Implementation phase

The implementation phase covers various stages and activities, some of which are implemented simultaneously. The first stage of this phase consists in the presentation of the project, its objectives and conditions to be fulfilled to become a beneficiary (E.2.1). This is followed by the infrastructure works execution stage (E.2.2) (comprising the launching of corresponding BIs), supported on the field by the social mobilization and social marketing stage (E.2.3). This stage marks the start of the use of Information, Education and Communication (IEC) techniques (A.2.3.1), destined especially to sensitize and educate the population on the use of sanitation and hygiene techniques for a clean environment and better health. SARAR/PHAST and ATPC-type participatory/interactive methodologies and others are used within this framework.

4.2.1 Project presentation stage

In the implementation phase, field work is primordial.

This stage (E.2.1) precedes and supports the works execution stage.

During this stage, trust must be established between the project beneficiary population and the actors concerned. Henceforth, time management also becomes extremely important.

Commitments between the population and the administration are defined from this moment:
First is the **contract** that defines the roles and commitments of parties:

- Construction of facilities, training on maintenance and monitoring of repairers;
- Setting up of a Water Point Management Committee, collection of village contributions (amount fixed by the Administration), constitution of a stock of spare parts, monitoring of training envisaged for the village community.

Then follows the socio-technical installation of the water point:

- This must take into account information on village inhabitants; the site identified must not be privately owned, and must be sufficiently far away from latrines, dustbins, etc.);
- It must also take possible geological constraints into consideration.

As part of the commitment linking the population and the administration in charge of the sector, it is particularly important that, after the signing of the contract, the works implementation timeframes be sufficiently brief.

For instance, a very long delay between the signing of the contract and borehole construction leads to disengagement by the population that contributed towards the required financial package (the contribution itself might be diverted to other purposes).

Worse, a long delay between borehole construction and the installation of the pumping system (HOP – Human Operated Pumps – or DWS system), leads to mistrust by the population that will no longer readily believe in any proposal whatsoever, not to mention the bitterness of not being able to have the clean water from the borehole.

### 4.2.2 Infrastructure construction works stage

This stage (**E.2.2**) comes after the successful launching of bid invitations and is the visible part because it comprises tangible achievements. That is why it is generally considered as the heart of the project and as the most important mark of its success. The percentage of positive boreholes or latrines constructed is the first effectiveness evaluation indicator for water and sanitation projects.

However, this stage cannot be correctly implemented without undertaking social mobilization, hygiene education, sanitation and health-related activities in tandem (see following stage).

### 4.2.3 Social mobilization and social marketing stage

This stage (**E.2.3**) is absolutely crucial. The stage’s activities must be entrusted to experienced persons, endowed with solid teaching abilities, and able to give an overall explanation of the specifics on proposed technological solutions. Essentially, this is the work of facilitators and not that of sociologists, socio-economists or anthropologists, who generally do not have the requisite training or experience. Community intermediaries may be solicited, but for limited operations, to help facilitators contact resource or key persons of village communities, to ease the organization of activities and transmit the messages afterwards to the population, but after the initial thorough work has been done.

In IEC implementation, in addition to the activities conducted by potential village or community intermediaries in close relation with facilitators (talks, demonstrations, ATPC hygiene course, etc.), it is recommended to use other activities that mobilize various segments of the population, including youths, who are too often neglected. This could be done through games, sketches and
theatre. Theatre, dance, song, and traditional means of communication in local languages are highly recommended. They help to transmit messages that are sometimes difficult to put across through mere words or didactic presentations. The population’s participation is more important and the impact deeper when messages are successfully transmitted through entertainment. The involvement of youths is important here because it offers future guarantee and greater assurance that the impact of messages will be sustained.

Local or regional activities must also be envisaged. These will help to achieve several objectives: involve local and regional authorities for purposes of advocacy development; ensure project and community monitoring afterwards; bring together various communities, which can thus share their experiences; and take initiatives for future action (pay visits to help each other). This could also be the opportunity to develop communication tools with a wider spectrum than villages, discuss legal solutions for management structures, and lay the foundations for federating these structures, etc.

Furthermore, the use of radio is a good means of reaching many persons. Radio is a popular medium in which the population often has a good level of trust. It also helps to share the experiences of other villages and produce reports on what is happening. Projects must envisage using the radio in the hygiene and sanitation sector, health and gender issues, social participation or knowledge dissemination, given its obvious impact in certain countries.

Training comes during this period, especially for repairers who must be identified before the launching of bid invitations for infrastructure works.

Within the specific framework of projects or operations in the family sanitation sector, corresponding infrastructure is put up following the first IEC activities. Construction work can benefit from the project’s direct support (for instance in the form of a grant).

4.2.4 Establishment of management structure /facility administration

The following stage (E.2.4) consists in establishing the management structures of facilities being constructed (user associations and water, sanitation or hygiene committees) and the training of staff involved. Training must include environmental and IWRM issues.

In principle, the setting up of management structures, their legal status and management arrangements must have already been adopted during the previous phase. They may, however, be adapted, if necessary.

Concurrently, training is provided for the workers called upon to maintain the infrastructure constructed (repairers, standpipe operators, pumping and treatment station technicians, etc.).

4.2.5 Evaluation stage

It is necessary to envisage a mid-term project/operation evaluation or review (E.2.5). This must be conducted to establish an external and independent diagnosis of the operation’s progress, and the effectiveness of management and monitoring arrangements, with a view to identifying the areas in which corrections should be envisaged. It may also help to measure the first effects of the activities conducted, in addition to data already collected. It is rare for these activities to be carried out, yet they are essential to ensure better conduct of operations and make the most of them. The necessary basic resources for this type of exercise are indicated in the table or logical framework presented later in this document.
4.3 Phase 3: Consolidation and withdrawal phase

Thanks to the proposed previous analysis, which emphasizes the need for continuity of effort, consolidation of achievements, and sustainability of activities conducted, we here propose a phase that is generally absent from RWSS projects and operations. This consolidation phase as well as the phase preparatory to disengagement or withdrawal from the operation or project, comprises two main stages: monitoring of local structures set up and consolidation of activities previously described, and final evaluation.

4.3.1 Monitoring/consolidation stage

The first stage, monitoring and consolidation, comprises two main activities:

- An activity consists in ensuring support for the use and consolidation of management tools and procedures (which can lead to further training and development of additional tools);
- The other activity consists in monitoring social mobilization, the evolution of practices and behaviour, and infrastructure use and maintenance, for consolidation and sustainability of best practices, lasting infrastructure use and future development. For that, we must ensure the permanent use of measurement systems and tools, IEC techniques and tools, and their possible adaptation.

Experience sharing and feedback activities must also be envisaged (including visits to or from other projects, organization of regional or national capitalization meetings, etc.).

4.3.2 Evaluation stage

As a conclusion to this final phase, there must be an evaluation stage. OWAS already envisages the drafting of a completion report on the operation or project, six months after its closure. Normally, a “post-evaluation” report is scheduled one to two years after the closure. The proposal here is that end of operation or project evaluation makes it possible, especially to start measuring its impact. The monitoring indicators and system defined during the preparatory phase will be essential for this exercise. The final evaluation can take advantage of mid-term review work, especially to ensure that the corrections envisaged have been implemented, and to sustain the impact of activities conducted. A very important objective of this type of exercise is also to analyse the permanent capacity of action initiated, structures established, infrastructure delivered, and messages transmitted. Lack of evaluation work and the systematization of these exercises would contribute to experience capitalization, and the setting up of recommended databases in some respects. The indicative resources and budgets envisaged to successfully carry out these activities are indicated briefly in the following logical framework.

Even though they have not been systematically implemented for the moment, these evaluation and capitalization activities must now be implemented because of their importance at all levels of design and implementation of projects and national policies and programmes that are supposed to be developed and updated regularly.
4.4 Operation or project monitoring/evaluation

As regards monitoring/evaluation indicators, proposals essentially concern what is linked to the implementation of hygiene, sanitation and health IEC, with a view to effecting change in practices, attitudes and behaviour, and sustaining solutions implemented. Therefore, we do not mention quantity indicators linked to infrastructure solutions since they are not the subject of these proposals.

The issue of health impact monitoring is quite delicate. Should health indicators be used to measure the effect of a water and sanitation programme?

We know that mortality of infants below five years is closely linked to sanitation conditions. However, it is a highly complex exercise to precisely assess the actual and quantifiable impact of a DWSS project on a population’s health. To mechanically link the setting up of a drinking water and/or sanitation infrastructure and the measurement of health indicators, even for waterborne diseases (cholera, diarrheal diseases, certain skin diseases, malaria, certain parasitic diseases) is quite difficult, since a population’s health level is multi-factorial. To isolate a factor from others requires expertise and methods not available in projects especially involving household surveys, control of several variables (for instance the availability of staff and health inputs), and monitoring over time to ensure this control, etc. Yet, it is clear that access to water, and particularly safe drinking water, and improved hygiene and sanitation practices have an undeniable impact on the state of health. The population and local authorities perceive it, but generally without being able to quantify it. What is difficult, therefore, is the precise measurement of this impact.

Some people also use household health expenditure as a measurement indicator, with the feeling that a reduction in expenditure is a positive impact sign. Nothing is less certain. A drop in the income of households, which come essentially from the rural area and are therefore very dependent on climatic cycles, can well be fully or partly responsible for this reduction. Income is the first health expenditure variation factor.

Therefore, it is probably more instructive and more tangible, compared to an operation in the water and sanitation sector, to measure the intermediate indicators, which, in turn, can help explain – but partly only – the evolution of more global indicators such as health expenditure and the projected prevalence of diseases. For instance, attendance, detection, and health care quality indicators, etc., may offer information indirectly on the effects of projects on the population’s health. The observed or notified incidence of waterborne diseases in neighbouring health facilities, or the incidence of main symptoms corresponding to diseases as observed by families themselves, seem easier to assess by consulting registers of health facilities and questioning health staff. Even here, care must be exercised: variation factors abound (and imply input availability, household income, etc.). In addition, measures aimed at isolating factors are quite difficult and costly. They require considerable resources involving especially household surveys, control of several variables, etc.

In other words, the population’s health indicators or those of the health system should not be used as monitoring and impact indicators of RWSS projects only, unless dedicated (and considerable) resources are deployed to isolate and measure the impacts of projects/operations on these indicators. However, we can envisage the financing of specific studies, out of a sample of projects or operations (see section on suggested studies).
Possible indicators for DWSS operation/project monitoring and impact evaluation

To specify the overall indicators mentioned in the "monitoring indicators" box of the logical framework for impact monitoring (see activities A.1.3.3.c. "Establishment of the operation logical framework" and, in particular, the "monitoring/evaluation" framework, and A.3.1.2. "Monitoring of social mobilization, changing attitudes, practices, behaviour"), here are some possible indicators. They are proposed as a rough guide and must be determined during the operation/project preparatory phase – activity A.1.3.3.c. Certain indicators may need to be specified in sub-indicators (as illustrated below for instance in the case of functioning of the management structures set up).

- **Water Supply (WS):**
  - Proportion of the population with regular and safe access to drinking water;
  - Average volume of drinking water used per day and per person (in a representative sample of households);
  - Proportion of the population with access to drinking water through individual connections;
  - Proportion of facilities installed by the project/operation still functioning correctly (pumps, standpipes, etc.);
  - Trend of overall water supply and demand:
    - Overall average volume supplied per day (and per month – taking seasonal variations into account) by DWS facilities constructed by the operation/project;
    - Overall volume consumed per day for the entire village community (or persons consuming);
    - Total earnings from sale of water supplied by the DWS system set up by the operation/project (note that earnings indicate an income, but that the overall income may be made up of other sources than the sale of water volume, for instance the installation of an individual connection);
  - Operation of management structures:
    - Number and proportion of operational committees/user associations:
      - regular meetings,
      - proportion of positions of responsibility occupied,
      - proportion of positions of responsibility occupied by women,
      - proportion of positions of responsibility occupied by youths (aged below 30); a person in charge of sensitization, education, monitoring of proper infrastructure use and practices is appointed and active within the structure,
      - IEC activities conducted regularly.
    - Abilities of persons involved in the work of operational committees/user associations:
      - Literacy rate of members of committees/associations,
      - Literacy rate of members with responsibilities (presidents, vice-presidents, treasurers, IEC officers).
• Production management of committees/associations:
  ▪ Multi-annual development plans,
  ▪ Multi-annual budgets,
  ▪ Annual budgets,
  ▪ Investment analyses.

➢ Sanitation:

□ Proportion of the population with an improved latrine;
□ Proportion of the population using an improved latrine mainly and on a daily basis, for personal hygiene needs (in a representative sample of households);
□ Proportion of the population using OAD regularly for its needs;
□ Proportion of family sanitation facilities properly and regularly maintained (sludge removal, operational flush system, ...);
□ Proportion of project/operation villages with a collective refuse/waste disposal and recycling system;
□ Proportion of the population with a soak-away or wastewater disposal system (shower, laundry and dishwasher);
□ Functioning of monitoring/management structures:
  • Number and proportion of hygiene and sanitation committees/user associations still functioning:
    ▪ regular meetings,
    ▪ proportion of positions of responsibility occupied,
    ▪ proportion of positions of responsibility occupied by women,
    ▪ proportion of positions of responsibility occupied by youths (aged below 30),
    ▪ a person in charge of sensitization, education, monitoring of proper infrastructure use and practices is appointed and active within the structure,
    ▪ IEC activities conducted regularly.

• Abilities of persons involved in the work of functional committees/user associations:
  ▪ Literacy rate of members of committees/associations,
  ▪ Literacy rate of members with responsibilities (presidents, vice-presidents, treasurers, IEC officers),

• Production management of committees/associations:
  ▪ Multi-annual development plans,
  ▪ Multi-annual budgets,
  ▪ Annual budgets,
  ▪ Investment analyses.

Specifically with regard to the effects of the drinking water supply or sanitation system on the population’s health, indicators directly linking this system and the population’s state of health do not exist. However, the records of neighbouring health posts or centres can be used to have an idea (incomplete) of the incidence and prevalence of waterborne diseases, associating such data with household surveys on population and health (e.g. Population and Health Survey – PHS),
conducted at more or less regular intervals (every 5 to 10 years). A marked drop in the incidence of diarrheal diseases, for instance, and the disappearance of cholera (as reported in the study’s field work) are an indication of the trend and likely (but not exclusive) effect of operations or projects in the RWSS sector. The measurement of behaviour change gives an additional indication.
5. **Logical Framework and Intervention Schedule**

A logical intervention framework has been developed and proposed below, recapitulating all the proposals for conduct of activities on the population’s mobilization, hygiene, sanitation and health sensitization and education. The framework assembles various key elements, with a view to ensuring the strategic and operational planning of these activities in RWSS projects. It also includes indications concerning operation monitoring and evaluation, in line with earlier proposals.

The following tables present the conduct of a standard operation or project, for each of the three phases, as well as an indicative timetable. Indications on resource needs and cost estimates are included below the table for activities linked to operation or project support activities, among which IEC and training. The subsequent chapter recaps the valuation of overall costs of support activities (IEC, training).
### Intervention in the Drinking Water Supply (DWS) Sector

**LOGICAL FRAMEWORK / PHASE 1 - Preparation**

<table>
<thead>
<tr>
<th>Phases</th>
<th>Stages</th>
<th>P1. Preparatory phase</th>
<th>E.1.2. Operation definition</th>
<th>E.1.3. Operation/project establishment</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Main activities</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>A.1.1.1. Feasibility study (conducted by OWAS)</td>
<td>A.1.2.1. Project Appraisal Mission (conducted by consultants)</td>
<td>A.1.3.1. Launching of BIs for consultancies (project operators)</td>
<td>A.1.3.2. Recruitment and upgrading of facilitators/attendants/supervisors</td>
</tr>
<tr>
<td></td>
<td>A.1.2.1. ADB internal administrative process</td>
<td>A.1.2.2. ADB internal administrative process</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

|        | Supplementary activities |                         |                              |                                        |
|        | A.1.1.1.a. Identification mission |                         |                              |                                        |
|        | A.1.1.1.b. Preparatory mission |                         |                              |                                        |
|        | A.1.1.2.1. Project Appraisal Mission (conducted by consultants) | A.1.2.2. ADB internal administrative process | A.1.3.1. Launching of BIs for consultancies (project operators) | A.1.3.2. Recruitment and upgrading of facilitators/attendants/supervisors |
|        |                              | A.1.2.2. ADB internal administrative process | A.1.3.1. Launching of BIs for consultancies (project operators) | A.1.3.2. Recruitment and upgrading of facilitators/attendants/supervisors |
|        |                              | A.1.3.2.1. Recruitment of consultancies and operators | A.1.3.2. Recruitment and upgrading of facilitators/attendants/supervisors | A.1.3.3. Recruitment of operators |
|        |                              | A.1.3.2.2. Identification of village key and resource persons; | A.1.3.3. Recruitment of operators |
|        |                              | A.1.3.2.3.b. Identification of village key and resource persons; | A.1.3.3. Recruitment of operators |
|        |                              | A.1.3.3.1. Final establishment of the project's technical specifications, its schedule, necessary resources and budget | A.1.3.3. Recruitment of operators |
|        |                              | A.1.3.3.3. Establishment of the project management system and the monitoring/evaluation framework | A.1.3.3. Recruitment of operators |
|        |                              | A.1.3.3.4. Description of the initial situation (and selection and filling in of basic monitoring/evaluation indicators) | A.1.3.3. Recruitment of operators |
|        |                              | A.1.3.3.5. Final establishment of the project's technical specifications, its schedule, necessary resources and budget | A.1.3.3. Recruitment of operators |
|        |                              | A.1.3.3.6. Establishment of the project management system and the monitoring/evaluation framework | A.1.3.3. Recruitment of operators |
|        |                              | A.1.3.3.7. A KAP-type sociological or anthropological study is available; | A.1.3.3. Recruitment of operators |
|        |                              | A.1.3.3.8. An economic study is conducted (the project's economic benefits and disadvantages); | A.1.3.3. Recruitment of operators |
|        |                              | A.1.3.3.9. Demographic, economic and hydrographic projections are made; | A.1.3.3. Recruitment of operators |
|        |                              | A.1.3.3.10. The monitoring/evaluation framework is adopted (indicators defined, their production and collection terms adopted) | A.1.3.3. Recruitment of operators |

**Outcomes**

<table>
<thead>
<tr>
<th></th>
<th>R.1.1.1.1. Identification report</th>
<th>R.1.1.2. Operation/project approval</th>
<th>R.1.1.2.1. Evaluation report</th>
<th>R.1.2.2. Final financing approval</th>
<th>R.1.3.1. Recruitment of consultancies and operators</th>
<th>R.1.3.2.1. Recruitment of facilitators and supervisors</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>R.1.1.1.2. Preparatory report</td>
<td></td>
<td>R.1.1.2. Operation/project approval</td>
<td>R.1.1.2.1. Evaluation report</td>
<td>R.1.2.2. Final financing approval</td>
<td>R.1.3.1. Recruitment of consultancies and operators</td>
</tr>
<tr>
<td></td>
<td>R.1.1.1.3. Conceptual note</td>
<td></td>
<td>R.1.1.2. Operation/project approval</td>
<td>R.1.1.2.1. Evaluation report</td>
<td>R.1.2.2. Final financing approval</td>
<td>R.1.3.1. Recruitment of consultancies and operators</td>
</tr>
</tbody>
</table>

- **Monitoring indicators**
  - An identification report is produced;
  - A preparatory report is produced;
  - A conceptual note is produced;
  - The reports are approved by OWAS/AFDB and a decision taken as to the continuation of the process of preparing the project/operation.
  - An appraisal report is approved by OWAS/AFDB and the financing decision taken;
  - The technical specifications of operators are adopted;
  - Profiles and ToRs of socio-economists, interviewers, anthropologists or sociologists, facilitators/attendants and supervisors are adopted;
  - BDs are produced;
  - The bid is published;
  - Contractors are selected according to the standards in force.
  - Facilitators/attendants and their supervisors are recruited;
  - Supplementary training is provided (certificates);
  - Community/village intermediaries are identified;
  - Intermediaries have received hygiene and sanitation training (certificates);
  - The monitoring/evaluation framework is adopted (indicators defined, their production and collection terms adopted).
<table>
<thead>
<tr>
<th>Phase duration</th>
<th>12-14 months</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stage duration</td>
<td>2-3 months</td>
</tr>
<tr>
<td>Activity duration</td>
<td>0</td>
</tr>
<tr>
<td>Necessary resources (activity)</td>
<td>AFDB staff (OWAS, other departments)</td>
</tr>
<tr>
<td>Intensity of resource consumption</td>
<td>0</td>
</tr>
<tr>
<td>Cost</td>
<td>0</td>
</tr>
</tbody>
</table>

For the cost of a facilitator, a supervisor and, possibly, an intermediary: see Annex 3.1 of the final report.

In Mozambique, a long duration training course (one year – Community Participation and Education Professional Certificate) at the Centre for Professional Training in Water and Sanitation costs Mt 1 350 per month. Registration fees stand at Mt 750, whatever the course. – See detailed costs in the "training in Mozambique" sheet.

In Senegal, a CAP study costs 5 000 to 10 000 euros.

See on the CFPAS site the cost of a short training like those proposed in their review.
### Outcomes

<table>
<thead>
<tr>
<th>Stages</th>
<th>E.2.1. Project establishment/implementation</th>
<th>E.2.2. Construction of RWSS infrastructure</th>
<th>E.2.3. IEC support</th>
<th>E.2.4. Mid-term evaluation</th>
<th>E.2.5. Delivery of facilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phases</td>
<td>E.2.1.1. Presentation of the project to the population</td>
<td>A.2.2.2. Execution of infrastructure work</td>
<td>A.2.2.3. Setting up of local management structures (user associations, hygiene committees, water and sanitation committees, etc.)</td>
<td>A.2.3. Social mobilization/social marketing (start of use of IEC – with participatory methodologies – of the SARAR/PHAST, ATPC type, and others)</td>
<td>A.2.4.1. Evaluation of basic evaluation criteria (the OECD’s CAD-type) – requires 6 BI</td>
</tr>
</tbody>
</table>

### Supplementary activities

<table>
<thead>
<tr>
<th>A.2.1.1.a.</th>
<th>A.2.2.1.a.</th>
<th>A.2.2.3.a. Members of local structures are trained</th>
<th>A.2.2.1.a. Family sanitation options are presented to the population (control latrines for instance)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Establishment of the contract laying down the roles and commitments of parties</td>
<td>Training of artisan-repairers and masons</td>
<td>The population is mobilizing for certain works (in family sanitation especially)</td>
<td></td>
</tr>
</tbody>
</table>

### Main activities

<table>
<thead>
<tr>
<th>A.2.2.1.b. Socio-technical installation of the water point</th>
<th>A.2.2.2.b. Support to the construction of facilities (sanitation facilities)</th>
<th>A.2.2.3.b. Training provided to standpipe operators, pumping and treatment station technicians, etc.</th>
<th>A.2.2.1.b. Organization of local and regional activities, in liaison with council, district and regional authorities, etc.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.2.2.2.1.</td>
<td>A.2.2.3.c.</td>
<td>Education of the population on the technical use of infrastructure and facilities (especially in family sanitation)</td>
<td>A.2.2.1.c. Organization of local and regional activities, in liaison with council, district and regional authorities, etc.</td>
</tr>
<tr>
<td>Water facilities are constructed according to specifications</td>
<td>The population is informed in various ways of the implication of investments proposed.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Outcomes

<table>
<thead>
<tr>
<th>A.2.3.2.1. The population benefits from the user associations, hygiene committees, water and sanitation committees, etc.</th>
<th>A.2.3.2.2. Sanitation facilities are constructed according to specifications</th>
</tr>
</thead>
<tbody>
<tr>
<td>The socio-technical installation of water points is defined</td>
<td>The socio-technical installation of water points is defined</td>
</tr>
</tbody>
</table>

---

**Multinational Study on Education, Hygiene and Health in the Rural Water Supply and Sanitation Context**

**Final Report**

**Intervention in the Drinking Water Supply (DWS) sector**

**LOGICAL FRAMEWORK / PHASE 2 - Implementation**

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**Multinational Study on Education, Hygiene and Health in the Rural Water Supply and Sanitation Context**

**Final Report**

**Intervention in the Drinking Water Supply (DWS) sector**

**LOGICAL FRAMEWORK / PHASE 2 - Implementation**
### Monitoring indicators

- Construction contractors were selected according to the rules in force.
- Number of artisans/repairers trained (according to needs).
- Number of masons trained (according to needs).
- Indicators used traditionally for the monitoring of infrastructure construction.
- Number of users’ associations/water committees/hygiene committees/sanitation committees established.
- Number of standpipe operators, technicians trained (certificates).
- Number of beneficiary villages.
- Number of facilities constructed according to standards in force.
- Number of villages having received all social mobilization, hygiene, sanitation and health sensitization and training services.
- Total population reached by various communication instruments used by the operation.
- A mid-term evaluation report is produced.
- Number of facilities constructed and certified as compliant.

### Phase duration

- 24-26 months

### Stage duration

- 2-3 months
- 16 months
- 18 months
- 2 months
- 2 months

### Activity duration

- 3 months
- 2 months
- 15 months
- 12 months
- 18 months
- 2 months
- 2 months

### Necessary resources (activity)

<table>
<thead>
<tr>
<th>National socio-economist</th>
<th>0</th>
</tr>
</thead>
<tbody>
<tr>
<td>Specialized engineers (management)</td>
<td>0</td>
</tr>
<tr>
<td>Professional facilitators &amp; supervisors, with a knowledge of water and sanitation</td>
<td>1 evaluation specialist (international) + 1 engineer (sub-regional) + 1 financier (national)</td>
</tr>
<tr>
<td>Specialized trainers (engineering, building)</td>
<td>0</td>
</tr>
<tr>
<td>Village/community intermediaries</td>
<td>0</td>
</tr>
<tr>
<td>Specialists of issues covered (health, hygiene, sanitation)</td>
<td>0</td>
</tr>
<tr>
<td>Village/community intermediaries</td>
<td>0</td>
</tr>
<tr>
<td>Moves and visits in a sample of communities</td>
<td>0</td>
</tr>
<tr>
<td>Potential village intermediaries may be solicited</td>
<td>0</td>
</tr>
<tr>
<td>15 days of work on the spot each, 20 to 25 days of work total</td>
<td>0</td>
</tr>
</tbody>
</table>

### Intensity of resource consumption

<table>
<thead>
<tr>
<th>0</th>
</tr>
</thead>
</table>

### Cost

<table>
<thead>
<tr>
<th>0</th>
</tr>
</thead>
</table>

For the cost of a facilitator, a supervisor and, possibly, an intermediary: see Annex 3.1 of the final report.

| 0 |

If the cost of a facilitator, a supervisor and, possibly, an intermediary: see Annex 3.1 of the final report.

| Charge from 50 to 60 K€ 0 |

Varies, generally, from one country to another.
## Intervention in the Rural Water Supply (RWS) sector
### LOGICAL FRAMEWORK / PHASE 3 - Consolidation / Withdrawal

<table>
<thead>
<tr>
<th>Phases</th>
<th>P3. Consolidation and withdrawal phase</th>
<th>E.3.2. Final evaluation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stages</td>
<td>E.3.1. Monitoring of local structures set up</td>
<td>A.3.2.1. Evaluation and capitalization (first impact assessments, lessons learnt) – requires a BI</td>
</tr>
<tr>
<td>Main activities</td>
<td>A.3.1.1. Support to / monitoring of use of management tools</td>
<td>A.3.2.1. Evaluation and capitalization (first impact assessments, lessons learnt) – requires a BI</td>
</tr>
<tr>
<td>Supplementary activities</td>
<td>A.3.1.1.b. Development of adapted supplementary tools</td>
<td>A.3.2.1.a. Resumption of monitoring indicators; additional surveys</td>
</tr>
<tr>
<td>Outcomes</td>
<td>R.3.1.1. Professionalization of local structures (they are able to make forecast management, and anticipate evolutions)</td>
<td>A.3.2.1.b. Analysis of success, failure factors</td>
</tr>
<tr>
<td></td>
<td>R.3.1.2.1. IEC is an integral part of activities of user associations and support provided by local, district, regional authorities; etc.</td>
<td>A.3.2.1.c. Analysis of basic evaluation criteria (the OECD CAD-type)</td>
</tr>
</tbody>
</table>

| Outcomes                    | R.3.2.1.1. The operation’s overall efficiency is evaluated. A post-operation initial impact measurement is done |
|                            | R.3.2.1.2. Start of capitalization (lessons learnt, recommendations for other operations or projects) |
|                            | R.3.2.1.3. Indicators established at the operation’s start are filled in |
|                            | R.3.2.1.4. The evaluation is included in national and international DWSS data banks |

**Intervention in the Rural Water Supply (RWS) sector**

**LOGICAL FRAMEWORK / PHASE 3 - Consolidation / Withdrawal**

<table>
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<tr>
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|                            | R.3.2.1.2. Start of capitalization (lessons learnt, recommendations for other operations or projects) |
|                            | R.3.2.1.3. Indicators established at the operation’s start are filled in |
|                            | R.3.2.1.4. The evaluation is included in national and international DWSS data banks |

**Intervention in the Rural Water Supply (RWS) sector**

**LOGICAL FRAMEWORK / PHASE 3 - Consolidation / Withdrawal**

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</table>

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|                            | R.3.2.1.3. Indicators established at the operation’s start are filled in |
|                            | R.3.2.1.4. The evaluation is included in national and international DWSS data banks |
## Monitoring indicators

- Management tools are operational;
- The committee/association is able to ensure infrastructure management, including short and medium-term planning;
- Practices have evolved towards greater hygiene and greater sanitation;
- Infrastructure use is maintained at a satisfactory and sustainable level;
- Facilitators or intermediaries are included in committees or users’ associations;
- The structures set up remain operational;
- Number of additional private connections made since the infrastructure’s commissioning (PWS);

- A final evaluation report (including an impact measurement and a capitalization analysis) is produced and approved;
- The report is included in the country’s water and sanitation data bank at the pan-African bank.

### Phase duration

<table>
<thead>
<tr>
<th>Activity</th>
<th>15-21 months</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stage</td>
<td>12-18 months</td>
</tr>
<tr>
<td>Activity</td>
<td>12 months</td>
</tr>
<tr>
<td></td>
<td>12-18 months</td>
</tr>
</tbody>
</table>

### Necessary resources (activity)

<table>
<thead>
<tr>
<th>Activity</th>
<th>1 manager</th>
<th>1 socio-economist</th>
<th>1 socio-economist (international) + 1 public health specialist (sub-regional) + 1 statistician (national)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0</td>
<td>0</td>
<td>Trips and per diems of non-nationals</td>
</tr>
<tr>
<td></td>
<td>0</td>
<td>0</td>
<td>Movements and visits in a sample of communities</td>
</tr>
<tr>
<td></td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
</tbody>
</table>

### Intensity of resource consumption

<table>
<thead>
<tr>
<th>Activity</th>
<th>full time (12 months ETP)</th>
<th>full time (12-18 months ETP)</th>
<th>25 days of work on the spot each, 30 to 35 days of work total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0</td>
<td>0</td>
<td>Charge from 70 to 90 K€</td>
</tr>
</tbody>
</table>

### Cost

<table>
<thead>
<tr>
<th>Activity</th>
<th>0</th>
<th>0</th>
<th>0</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>
Intervention in the Rural Water Supply (RWS) sector

INDICATIVE SCHEDULE (on a monthly basis)

Phase I – Preparatory phase
Stage 1.1 Operation identification
  Activity 1.1.1 Feasibility study (identification + preparation/conceptual note)
  Activity 1.1.2 Internal approval process (AfDB)
Stage 1.2 Operation definition
  Activity 1.2.1 Project Appraisal Mission (conducted by consultants)
  Activity 1.2.2 Internal approval process (AfDB)
Stage 1.3 Operation/project establishment
  Activity 1.3.1 Launching of BIs for consultancies (project operators)
  Activity 1.3.2 Recruitment and upgrading of facilitators, supervisors
  Activity 1.3.3 Socio-economic study / CAP / context analysis / evolutional analysis

Phase II – Implementation phase
Stage 2.1 Project establishment / implementation on the ground
  Activity 2.1.1 Presentation of the project to the population
Stage 2.2 Execution of infrastructure works
  Activity 2.2.1 Launching of BIs for infrastructure works
  Activity 2.2.2 Execution of infrastructure works
  Activity 2.2.3 Setting up of local management structures
Stage 2.3 IEC support
  Activity 2.3.1 Social mobilization / social marketing
Stage 2.4 Mid-term evaluation
  Activity 2.4.1 Evaluation of basic evaluation criteria
Stage 2.5 Delivery of facilities
  Activity 2.5.1 End of construction of facilities / certification of end of works

Phase III - Consolidation / withdrawal phase
Stage 3.1 Monitoring of the local structures set up
  Activity 3.1.1 Support to / monitoring of the use of management tools
  Activity 3.1.2 Monitoring of social mobilization and the evolution of attitudes, practices, behaviour
Stage 3.2 Final evaluation
  Activity 3.2.1 Evaluation and capitalization (first impact assessments, lessons learnt)

6. COMPLETION REPORT (6 months after close of project),
7. POST EVALUATION (1-2 years after project completion)
6. Cost elements for RWSS operation or project support activities

Budgeting of support activities for drinking water supply and sanitation operations or projects is too often estimated as a percentage of the amount allocated to infrastructure. This reflects the lack of consideration for these activities even though they are considered crucial, and the absence of precision in the approach followed. It has been proposed here that budget valuation exercises for costs relating to these activities should be conducted in detail and specifically. The purpose is to enable project designers to budget according to the needs envisaged. In any case, since these activities are closely linked to infrastructure projects, it has been proposed that costs should be addressed, while also taking into account project characteristics and volumes. Therefore, this leads to modelling that reflects these volumes and, consequently, “variable” and “fixed” costs. The costs and their modelling also reveal expenditures linked more specifically to water or sanitation projects, in line with what is captured in the logical framework.

Annex 3.1 provides cost elements gathered all through the study in four countries covered by field work. They may serve as a basis for preparing more general cost estimates in specific projects. The objective here especially is to enable operation designers to conduct a detailed analysis of resource needs for these activities, as presented in the logical framework. Cost modelling is a product of this analysis.

The cost valuation model proposed is exclusively devoted to support activities. The latter cover IEC (social mobilization, sensitization, hygiene, sanitation, and health education) as well as the supplementary training to be envisaged in these activities, and the training planned for members of water, hygiene, and sanitation committees or user associations. As such, this does not include training for masons and repairers linked directly to infrastructure. The model is presented in Annex 3.2. It was developed on Windows Excel.

The model was designed to take both capital (equipment, vehicles) and recurrent expenditure into account. Training expenditure, which may be considered as capital expenditure (capacity building is an investment in human capital), has nevertheless been classified as “recurrent expenditure” for operations. However, in the costs summary, it is also classified as “human capital expenditure” with staff expenditure.

A difficulty of the exercise concerns the inclusion of administrative costs under these activities as is usually the case with valuation of activity costs. There are several ways of estimating the amount. In the case where the operator is entirely devoted to these activities, it is simple: its operating costs are budgeted on the project and everything is charged to the cost of these activities. In contrast, if the operator is responsible for other activities linked to the infrastructure project (for instance training of masons and artisans, or even execution of infrastructure works such as construction of lavatories and latrines, or management of grants for the construction of these latrines), the issue is a bit more complex: should we or should we not share the administrative and management costs among the various activities to be conducted? This will
depend on the project or operation’s analytical needs, or those of budgeting. If we want a fine degree of analysis, we will seek to carry out this sharing. For example, we can determine a sharing method based on one or several factors (time devoted by all administrative and project management staff to various activities, staff expenses, kilometres covered, transport costs, etc.). Since the general objective is to determine an overall package for support activity costs that will be budgeted by the donor, we can stick to a relatively simple approach, which consists in taking only direct costs into account. Therefore in each category, we will indicate costs linked strictly to activities considered. If we plan to recruit operators only to carry out these activities, it is simple: we will take into account all their resource needs. Staff costs, for instance, will include administrative and management staff, and so on. In contrast, if this concerns only part of the operator’s activities, we could apply rates for each type of cost (percentage of time, etc.).

The model enables us to reason in terms of capital cost and recurrent costs, item by item (see list below), as well as in terms of variable costs (linked to volume of activity) and fixed costs that are separate from this volume. However, fixed costs may evolve albeit by levels. Box 1 gives some basic indications for distinction between variable costs and fixed costs, and their method of preparation.

Even in the operation and project logical framework, some costs were put as a rough guide where information could be collected during field work. Annex 3.1 gives the IEC activity cost elements collected during the preparation of the retro-information and overall report, mainly from monographs. The main cost of this type of activities is represented by staff resources. As a rough guide, the cost of a facilitator in the countries retained for field studies is as follows:

- Burkina Faso: a facilitator’s minimum salary varies from CFAF 50 000 to CFAF 150 000/month depending on his/her education level (BEPC, BAC or Sociologist). Supervisors are paid between CFAF 100 000 and CFAF 200 000/month. Intermediaries (or “hygienists”) are generally volunteer workers but may receive an allowance of CFAF 15 000/month.

- Chad: a water project facilitator receives about CFAF 100 000/month. If we add fuel allowances, vehicle (motorbike) maintenance costs and other related costs to that, we arrive at a total of approximately CFAF 180 000/month. Supervisors receive CFAF 300 000/month, without an allowance, or about CFAF 400 000/month, including the latter.

Costs relating to available social engineering training for water and sanitation projects were also obtained (case of Mozambique) – see Annex 3. These costs are presented purely as a rough guide. They were prepared at the study team’s request and were not, therefore, in response to a bid invitation that would probably have led to lower costs (especially in staff costs). Hence, this is certainly a high estimate.
Box 1: Approach by variable and fixed costs

"Variable" costs are closely linked to variation in the volume of activity. This “activity” may be the number of villages included in a project (or the number of projects in an operation, if this is the term applied to an operation in a given village for instance), or the total population affected by social mobilization, sensitization and education activities, through IEC (for some of them at least, for instance in the case of organization of talks, demonstrations, interactive activities). This is also valid for training whose volume may depend on the number of villages concerned by the operation, since the number of user associations or committees set up, therefore the number of persons to be trained in management, certain aspects of water and sanitation, and even IEC etc., depends on that. The number of facilitators, supervisors, “promoters” and other “hygienists”, who may need additional training also depends on the number of villages. In contrast, certain activities (e.g. operation or project administration, certain transport expenses, as well as certain aspects of IEC such as radio campaigns) are not directly linked to these volumes. Therefore, their costs are not classified as “variable”, but rather as “fixed”. Nevertheless, if we significantly vary the volume of activity (number of villages, local projects or operations, facilitators, population covered, etc.), then the amount of “fixed” resources must be adjusted accordingly. Perhaps, one accountant would no longer be sufficient; a second may be needed. A field operator can only cover a number of villages included in a given bracket beyond which it will be difficult for him/her to operate efficiently. Work will then be shared among several operators. For instance, an operator will handle a certain region that he/she knows well or where he/she already operates, while another region, where he/she has little or no experience will be assigned to another. We could make economies of scale by consolidating operators so as to limit administrative costs (duplication and overlap are natural, if we divide the same work among several operators); although this can be done where possible, the operation’s overall efficiency could be adversely affected. It is probably more certain and effective to allow several operators, with their terms, to work in various territories. Rare are the field operators (NGOs, CSOs, consultancies) that have the ability to cover vast territories.

Technical NOTE: on the use of cost data from other programmes and countries (see also the activity’s “costs” box A.2.4.1. “End of construction of facilities/certification of end of works” for instance, as well as the “cost guide” spread sheet of the annexed model – see model in Annex 3.2):

For estimates using costs known in another country, we can use translation by the GDP deflator method and the use of GDPS/capita expressed in purchasing power parity (ppp) for costs of strictly national origin (salaries, local transportation, telecommunication charges, various other local expenses). The following box is extracted from the guide put in the Excel document, which contains the cost valuation model for IEC and training activities linked to social mobilization, sensitization and education of the population in hygiene, sanitation and health.
Cost Guide: some indications for the preparation of a cost using data from another country

Let $C_1$ be the known cost in country $P_1$ for year $N$ and $= C_1 p_1(N)$

The cost sought is $C_2$ in country $P_2$ for year $N'$ and $= C_2 p_2(N')$

We will use the GDP deflator for country $C_1$ between year $N$ and year $N'$: $\text{DEF.} gdp_{C1(N-N')}$

Or the GDP deflator for country $C_2$ between year $N$ and year $N'$: $\text{DEF.} gdp_{C2(N-N')}$

Translation principle:
1. We bring back the $C_1 p_1(N)$ cost to an equivalent cost for year $N'$ (or $C_1 p_1(N')$) by applying the GDP deflator of country $P_1$ over the period between $N$ and $N'$ ($= C_1 p_1(N) \times \text{DEF.} gdp_{C1(N-N')}$ = we have $C_1' p_1(N')$
2. We divide this cost (or $C_1' p_1(N')$) by the GDP/cap. of country $C_1$ for year $N'$ expressed in PPP ($= C_1' p_1(N') / \text{GDP/cap.p1}(N')$), which gives a percentage ($\% \text{GDPC}1(N')\text{PPP})$ or $C_1'\%$)
3. We apply this percentage to the GDP/cap. of country $C_2$, expressed in PPA, for year $N'$ ($= C_1'\% \times \text{GDP/cap.p2}(N') = \text{this gives the cost sought (}C_2 p_2(N')$)

Remark: There might not be any inflation deflators between year $N$ and year $N'$ for $P_1$, but for $P_2$, in which case we first transcribe the cost $C_1$ for year $N$ ($C_1 p_1(N)$) into cost $C_2 p_2(N)$ by applying the same principle of percentage of GDPs/cap. expressed in PPPA, then we apply the GDP deflators between $N$ and $N'$ for country $C_2$ ($= C_1'\% \times \text{GDP/cap.p2}(N) \times \text{DEF.} gdp_{C2(N-N')} = C_2 p_2(N')$)

Calculation:

<table>
<thead>
<tr>
<th>Year</th>
<th>GDP deflator (example)</th>
<th>$C_1 (N)$</th>
<th>$C_1 (N')$</th>
<th>GDP/cap. in PPP and local currency (a)</th>
<th>$% C_1(N')$ on GDP in PPP</th>
<th>GDP/cap. for $P_2$ in N' (GDP/cap.p2(N'))</th>
<th>$C_2(N')$</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>100</td>
<td>1 000</td>
<td>2 500</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>...</td>
<td>...</td>
<td>...</td>
<td>...</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>N'</td>
<td>120</td>
<td>1 200</td>
<td>2 800</td>
<td>42.9%</td>
<td>1 700</td>
<td>729</td>
<td></td>
</tr>
</tbody>
</table>

(a) The GDP/cap. must be expressed in the same currency as the cost, so as to be able to compare them (calculation of the % in the following box). If there is no GDP/cap. in local currency expressed in PPP, we take its "international dollar" (currency used to express all GDPs in PPP) value, and convert it into local currency using the average exchange rate corresponding to the year of the available GDP data.
**Why use GDP/cap. values in PPP?**

"Purchasing Power Parities" help correct comparison distortions between currencies owing to various exchange rate fixing mechanisms.

For instance, certain currencies are "linked" to the Euro or dollar, or to baskets of currencies. Their rate may be manipulated by monetary authorities for economic reasons (competitiveness for instance).

Therefore the official exchange rate does not often reflect real or relative gaps in the internal purchasing power of currencies (the purchasing capacity of a currency unit in each country and its comparison with what it could “really” buy in another country).

Hence, it is necessary to refer to the GDP/cap. tables expressed in ppp. This is only a rough guide, because the inflation deflator or exchange rate in ppp for a given sector of activity (e.g. health) might differ significantly from the overall deflator and exchange rate. To limit the possibilities of gaps, it is better to use costs known in other projects of the same country (thus avoiding possible problems of passage from one currency to another if the countries have various currencies), or in a country of the sub-region, whose economic and social structures are similar to those of the country in which the operation/project is envisaged.

Rather than a complete cost for a given activity, which can often be difficult to find, or for a truly comparable activity, we can use partial data on key cost elements, for instance salaries. We can find this data in such international databases as those published by the ILO/ILB (International Labour Office/or Bureau). Thus, if we have an average salary of a given profession corresponding to X% of the GDP/capita (expressed in ppp) in country P1 in year N, we can apply this same percentage in the GDP/capita of country P2 (in ppp), for year N also (if both countries’ GDP structure and their GDP/capita are similar), and then bring back this salary calculated in country P2 to the cost of year N’ by applying the GDP deflator for this country between these two years.
Annexes

Annex 1: Bibliography

The documentation consulted as part of monographic work is presented in Annex 1 of each of the four monographs. Below, we will list only additional works consulted for the purpose of writing the overall report.

- PRATIQUES - santé scolaire: Éducation à la santé. Éducation à la santé à l'école fondamentale. 5 Fichiers de l'enseignant. Présentation Initiative Développement, Programme de Jean Rabel, Haïti. 2001, put online in February 2003

- Mains propres : Faire progresser l’apprentissage, la santé et la participation grâce au programme WASH dans les écoles.


- Pérennisation des projets d’approvisionnement en Eau Potable, Hygiène et Assainissement par le SARAR /PHAST. Les outils théoriques.


Annex 2: Examples of profiles and terms of reference of community facilitators and intermediaries

Terms of reference and profiles of facilitators and supervisors are presented here as a rough guide. They are based on specifications and other documentation obtained in the study country and from other experiences.

Case of Burkina Faso:

PROFILES OF STANDARD STAFF IN A SANITATION PROGRAMME

Village animators (hygienists)

The implementation of sensitization and education activities by project staff and technical services may present risks of activity suspension owing, among other things, to assignment of employees and financing difficulties.

Hence the need to recruit hygienists, who are proximity stakeholders chosen from within the local population itself and capable of carrying out sustainable hygiene and sanitation activities.

Several councils already have hygienists trained by field services of the Ministry of Health, Water and Sanitation. These stakeholders are volunteers chosen from within the population itself.

In view of the importance of these stakeholders, it is advisable to use persons already active in the village as members of existing village organizations such as women’s groups, youth groups or VDCs. Indeed, these individuals could through their groups popularize hygiene and sanitation activities.

Thus, the conditions for being a hygienist should be as follows:

- Be an inhabitant of the target village and reside there all the time;
- Be motivated to work, as a volunteer, in hygiene and sanitation activities;
- Be preferably a member of a group or association in the village.

Village facilitators (Hygienists) have as tasks to:

- Organize information and sensitization meetings at the village or neighbourhood level;
- Visit homes regularly (home visits) to:
  - Sensitize and advice households;
  - Monitor resource mobilization by households;
  - Monitor the construction of family latrines;
  - Ensure that households comply with hygiene practices;
  - Monitor public facilities (water points, latrines) regularly;
  - Organize sanitation days at the village level (elimination of uncontrolled rubbish dumps, cleaning of streets, etc.).
**Example: Hygienists in the water, hygiene and sanitation programme**

In each neighbourhood, two hygienists have normally been designated by the neighbourhood’s population: a woman and a man.

Hygienists have as roles to:
- Take part in some meetings in the neighbourhood;
- Make two home visits in each neighbourhood home,
- Get some data to enable the CSPS employee, or the supervisor to monitor and evaluate activities.

The main activities are to:
- Make a survey in all neighbourhood homes to know the practices before carrying out activities;
- Take part in the neighbourhood’s information meeting;
- Visit all neighbourhood homes, the first time, to disseminate messages using pictures;
- Take part, after this first visit, in a meeting with men and a meeting with women to recall the messages and discuss constraints;
- Visit all neighbourhood homes, the second time, to ensure the adoption of practices and reinforce the messages;
- Fill in the neighbourhood plan each time an activity is carried out.

Each team of hygienists is requested to devote two half days of work per week for four months. In addition, hygienists are advised to carry out their activities (meetings and home visits) together.

**Exogenous facilitators must** speak one of the main local languages of the operation area fluently, and have at least the BEPC or any other equivalent certificate.

They must:
- Have sound facilitation field experience in water or sanitation projects;
- Have a flexible approach to facilitation work planning, organization and conduct;
- Have a good knowledge of the operation area’s socio-economic context;
- Be ready to stay in the rural area and capable of getting about by motorbike.

**Supervisors** must speak one of the main local languages of the operation area, fluently, and have at least the Baccalaureate or any other equivalent certificate.

They must:
- Have sound facilitation field experience in water or sanitation projects;
- Have sound experience in supervision of facilitation teams;
- Have a good knowledge of the operation area’s socio-economic context;
- Be ready to stay in the rural area and capable of getting about by motorbike.
The hygiene and health specialist:

He will work under the responsibility of the mission head. He will define the methodology and necessary messages for health education facilitation actions envisaged and will complete the training of facilitators in this field. He will ensure, through specific missions during the project, support for health education and hygiene actions on the field and take part in the design of facilitation messages. To do this, he must have:

- A university level in the field of health and sanitation;
- A good knowledge of the operation area’s socio-economic context;
- Professional experience of at least five years in hygiene education activities for the population;
- A good ability to work in a multidisciplinary team;
- A good mastery of one of the project area’s main languages;
- A good mastery of computer tools.

The full-time Mission Head with a university level in the field of sociology or similar fields (human and social science graduate with a minimum level of BAC + 4 years). The mission head may also be a rural engineer with training that includes sanitation or civil engineering. He will coordinate all activities of the consultant and must have:

- Solid experience in the coordination of facilitation activities and the management and supervision of facilitation teams in their work both in the office and on the field; or solid experience in the coordination of water and sanitation projects;
- Professional experience of at least 15 years in rural water or sanitation projects;
- Sound field experience in the field of communication and facilitation in rural and semi-urban drinking water supply;
- A good mastery of one of the project area’s main languages;
- The coordinator is capable of working in a multi-disciplinary team and is open to collaboration with various stakeholders of the component;
- A good mastery of computer tools.
The works engineer

He will work under the responsibility of a mission head. He is responsible for organizing works control. He is in charge of training masons for community works. He must have:

- Solid experience in the coordination of works control teams;
- Professional experience of at least five years in DWSS or civil engineering projects;
- A good ability to work in a multidisciplinary team;
- A good mastery of computer tools.

Controllers of sanitation works:

They will work under the responsibility of the works engineer. They are in charge of monitoring-control of sanitation works. They must have:

- A CAP in civil engineering, sanitation or a similar certificate;
- Professional experience of at least five years in the execution or control of civil engineering works;
- Specific experience in the control of sanitation works (latrines, soak-away);
- A good mastery of computer tools.

Case of Senegal:

Below are the indications and examples drawn from projects implemented between 2004 and today (see Senegal monograph).

Profile of facilitators, PRS 2 support measures (March 2004):

Facilitators must be graduates in facilitation or an equivalent field. The minimum training required is BAC +2. They must have solid experience of at least five years in facilitation sensitization for rural water projects, and a good knowledge of the problems of getting the project area’s population involved.

In addition, these confirmed facilitators must have proven experience in proximity sensitization of the population, participatory approaches, the organization and training of the population and the monitoring of village associations and management committees, etc.

IEC of the Office National des Eaux du Sénégal (ONAS) (urban sanitation)- July 2005:

Social worker, with minimum experience of five years in the field of sanitation and hygiene education;

Profile of AfDB 1 IEC team – 2005

The socio-economist mission head will be a senior expert with a minimum of 10 years of professional experience in the practice of drinking water service organization in the rural area. He will have training of a level equivalent to at least BAC + 4 in the field of rural sociology and/or community development and/or other relevant fields. He must already have wide professional experience in the design and implementation of information, education and communication (IEC) activities and the sensitization and training of stakeholders in the field of rural water.
Facilitation supervisors will be practitioners of rural facilitation in the rural area with at least five years of professional experience. They will have training of a level equivalent to at least BAC + 2 in the field of facilitation, training, rural sociology or other relevant fields.

Facilitators will be confirmed rural facilitation-sensitization practitioners with minimum experience of three (3) years, for activities of this type, in rural water projects. They must have a good knowledge of the problems of getting the population involved in rural water management and proven general experience in the preparation and facilitation of public meetings, training in basic accounting and relations with traditional and territorial authorities.

Profiles of SEN 026 Luxembourg social engineering facilitators (July 2010):

Facilitators with confirmed practice in facilitation, education, communication and the sensitization of various social groups in the rural area, with minimum experience of three (3) years, for activities of this type, in rural water projects or similar ones. They must have a good knowledge of the problems of getting the population involved in community property management and proven general experience in the preparation and facilitation of public meetings, training in basic accounting and relations with local administrative authorities, religious leaders, local elected representatives, traditional leaders and various professional and social groups.

Profiles of PEPAM IDA IEC facilitators (2010):

Facilitation supervisors will be confirmed practitioners in the rural area with at least five years of professional experience. They will have training equivalent at least to BAC + 2 in the field of facilitation, training, rural sociology and other relevant fields.

Facilitators will be confirmed practitioners of rural facilitation – sensitization with minimum experience of three (3) years, for activities of this type, in rural water projects. They must have a good knowledge of the problems of getting the population involved in rural water management and proven general experience in the preparation and facilitation of public meetings, training in basic accounting and relations with traditional and territorial authorities.

Chad:

In the specifications of bidding documents (BDs) of the Programme “Access to drinking water and sanitation of the 10th EDF” in Chad, the staff described below is envisaged for the conduct of the following activities:

- Installation of about 750 HOPs in localities of 300 to 1 200 inhabitants;
- Rehabilitation of about 250 HOPs;
- Construction of about 65 solar DWS in localities of 1 200 to 2 000 inhabitants;
- Construction of about 171 DWS stations in localities of 2 000 to 10 000 inhabitants (thermal);
- Construction of two control multi-village DWS stations;
- Construction and optimization of about five DWS networks in localities of more than 10 000 inhabitants in the project area;
- Construction of about 400 latrines in the health centres, schools and markets of targeted localities;
- Organization of information and sensitization sessions on water, hygiene and sanitation among the targeted population.

The staff required specifically for IEC activities is indicated below:
Senior experts (All experts called upon to perform an important function in the contract’s execution are designated by the term "senior experts" and will be evaluated. They must have the following profile):

**Senior socio-economist:**

<table>
<thead>
<tr>
<th>Desired qualifications and experience</th>
<th>Desired general professional experience</th>
<th>Desired specific professional experience</th>
</tr>
</thead>
</table>
| Advanced university training or Advanced school (Social Sciences and/or Economic Sciences) good knowledge of French (BAC +5) | 15 years of professional experience desired including five years in the fields of community organization of the population in water and development projects. | - Conduct of two projects based on the PHAST or MARP approach.  
- Three experiences of at least two years in the following fields: Socio-economic study, preparation of basic files and teaching documents, organization and planning of facilitation activities in line with other project components, organization of village committees, control of the facilitation team’s work (national socio-economist, supervisors and facilitators). |

**Semi-urban sanitation specialist :**

<table>
<thead>
<tr>
<th>Desired qualifications and experience</th>
<th>Desired general professional experience</th>
<th>Desired specific professional experience</th>
</tr>
</thead>
</table>
| Advanced university training or Advanced school (water and sanitation) good knowledge of French (BAC +5) | At least ten (10) years of experience (minimum condition) in the field of water and sanitation | - Conduct of two projects in the field of water and sanitation.  
- Three experiences at least in the field of basic sanitation. |

Other experts:

**Socio-economist (junior):**

Training: *University training in economic or social sciences.*

Experience: *Experience of at least seven years, preferably in the private sector (projects, consultancies or services, NGOs), including three in fields relating to the organization of the rural population. Field experience in village and semi-urban water supply in Chad or in the region will be a plus.*

He must be resident in Chad and must have already worked there in the rural and semi-urban area.

Desired profile:

- Senior staff in the modern sense; ease in public, creativity, experience of intercultural relations.
- Ability to write reports and summaries in French.
- Good practice of office computer tools (MS Word and MS Excel), with proven experience, if possible, in the use of databases under Access.
- Health and temperament that can bear a position requiring numerous movements in the country.

He will take part in exchange of ideas with other programme and sector stakeholders on the implementation of the national strategy, capitalize experiences on water point management and organize their monitoring, in collaboration with the concerned Technical Department of the ME. He will assist the senior socio-economist for all activities concerning the socio-economic component, such as:

- Recruitment and training of facilitators;
- Design of messages to be transmitted, teaching tools and documents;
- Organization and planning of socio-economic component activities in line with other project components;
- Control of the work of facilitators;
- Annual summaries and computer archiving of data.

He will be responsible, under the guidance the senior socio-economist and in agreement with the ME, for the implementation of management monitoring indicators for all stakeholders of the maintenance chain (village committees, artisans, regional warehouses, suppliers of spare parts) in the long term.

He will be given a sense of responsibility on his contribution to the evolution of facilitation, training and supervision messages, with a view to improving the sustainable outcomes of village water projects and basing basic hygiene and sanitation elements around water points. That will also be the case for ownership of latrine construction methods by beneficiary villages.

The total duration of these services runs up to the end of the programme.

The team of experts mentioned above will be supported by technicians, who will be recruited on the spot.

**Supervisors of facilitation employees, socio-supervisors:**

**Qualification:** They must have a good educational level (minimum baccalaureate or equivalent) to be able to assimilate the diversity of the tasks assigned to them and plan, control and synthesize the work of facilitators.

**General and specific professional experience:** They must have solid experience in the field of facilitation, organization and training of village communities for rural development programmes. They will have a minimum of two years’ experience in the above fields in Central or Sahelian Africa.

**Observations:** Three in number by operation area, they will be stationed, for the project’s duration, in their respective sectors. They will be responsible for the proper conduct of various facilitation actions in their sectors: surveys, sensitization, training, monitoring of water points and the maintenance network. They will provide support to supervision employees at the technical level and that of work organization. They will make a monthly summary of the progress of works in their sectors. They will also be in charge of sensitization and monitoring of the maintenance system.
Facilitation employees:

Qualification: They must have initial training (minimum BEPC or equivalent) so as to be able to quickly assimilate the necessary bases for the conduct of their work.

General and specific professional experience: They must have initial experience in the field of facilitation, organization and training of village communities in rural development programmes.

Observations: They will be stationed, for the project’s duration, in their respective areas. They will carry out various actions: surveys, sensitization, training of water point committee members, water point monitoring, training in the field of hygiene and health, positioning of villages by GPS. They must speak the language used predominantly in their area.

The profile presented below is drawn from operations typically implemented in Chad:

<table>
<thead>
<tr>
<th>Community Intermediaries in Chad:</th>
</tr>
</thead>
<tbody>
<tr>
<td>In Chad, Community Intermediaries, currently used almost completely as support to Health Centres for HIV/AIDS and malaria control, are recruited mainly according to two selection criteria:</td>
</tr>
<tr>
<td>• The first is linked to setting knowledge and integration into one’s community;</td>
</tr>
<tr>
<td>• The second is related to the personality of the candidate, who must above all be sociable and honest.</td>
</tr>
<tr>
<td>Two other criteria are also taken into account in malaria control:</td>
</tr>
<tr>
<td>• The candidate’s level of education (be at least literate);</td>
</tr>
<tr>
<td>• The sex (priority is given to women).</td>
</tr>
<tr>
<td>Almost all intermediaries receive initial training on the role of Community Intermediaries (CI), sensitization techniques, vaccination and malnutrition screening.</td>
</tr>
<tr>
<td>These CIs generally receive three types of incentives:</td>
</tr>
<tr>
<td>• In cash (per day, per activity, initial allowance);</td>
</tr>
<tr>
<td>• In kind (food, drugs, clothes and bags, mosquito nets, free medical care, telephone credit...);</td>
</tr>
<tr>
<td>• And social recognition.</td>
</tr>
<tr>
<td>These incentives are normally given by officials of Health Centres and Health Districts. Only the MSF (Doctors without borders) NGO has given them this incentive. The incentives are often insufficient and/or irregular.</td>
</tr>
</tbody>
</table>
Annex 3: Costs of hygiene, health and sanitation support, IEC and CBC activities

Annex 3.1. Cost examples

In Burkina Faso:

Cost of an intermediary facilitator (village hygienist):

In most projects, village hygienists work as volunteers. These programmes however give them bikes to ease their work. Other programmes give them remuneration of about CFAF 15 000/month.

Some people are reflecting on the possibility of offering results-based allowances (the number of new facilities for instance, i.e.: latrines, soak-away, showers, wash-tubs).

The cost of an IEC bag with SARAR tools is about CFAF 40 000.

If the tool has to be developed or adapted, this adaptation cost is about CFAF 200 000.

Exogenous facilitator: his salary varies from CFAF 50 000 to 150 000/month according to the level of education (BEPC, BAC or Sociologist).

Supervisors: their salary varies from CFAF 100 000 to 200 000/month.

In Chad: a water project facilitator receives about CFAF 100 000/month. If fuel allowance, motorbike maintenance costs and other related expenses are added to it, we will have a total of about CFAF 180 000/month. Supervisors receive about CFAF 300 000/month without an allowance, or CFAF 400 000/month with the latter.

What we know about IEC/CBC costs:

We have very little detailed information on support, IEC and CBC costs in projects. Very often funds allocated for these activities are calculated as a fixed percentage on infrastructure cost. In Senegal, for instance, IEC accounted for 12% of costs for PAQPUD and 11% for GPOBA (according to AGETIP). In the case of AfDB 1, a CFA 1 500 remuneration was paid to community intermediaries for visits to households, to which was added a small budget for tea and pastries for talks (information communicated to Boudi Sakho). For the World Bank project in Senegal, the percentage of costs that go to IEC (sanitation) stands at 11.8%, whatever the technology.

For a total of 12 sites covered, IEC costs of the PEPAM-BA (CTB) project in Senegal stand at CFAF 7 132 000, in addition to separate payments for sketches and radio programmes.

According to information collected by UNICEF in Tanzania, the “soft” + “triggering” (social engineering) (IEC) cost = $ 1.6 per capita in Pakistan.
We also have some indications for socio-economic or prior practice analysis studies of the population in hygiene and sanitation. A CAP study in Senegal costs from 5 000 to 10 000 Euros, like the preparation of a LWSP. A KAP-type survey conducted in the Arusha region (Tanzania) by the Oikos NGO, completed in October 2011, concerned three parts: (where do you fetch water/your sources, the time spent – two hours of walking at least), sanitation, and hygiene. More than 1 800 persons were interviewed (80-85% coverage) for a cost of MTsh 2.8 (≈ 42.000 Euros). This cost includes the CAP study itself as well as sensitization and social mobilization (use of “social promoters” – health and water).

The “School Wash” cost = USD 35 000 per school in Tanzania.

However, certain institutions involved in projects gave us budgets, like ACRA in Senegal for instance. In the case of AfDB 1, we have committed budgets, but few cost details. On the other hand, we have slightly more information on financed activities. The costs of various household sanitation technologies and IEC are detailed in the AfDB 1 (PEPAM-AfDB Senegal) final report. The PEPAM manual envisaged CFAF 160 000 for the facility (with 10% to be paid by families). But the figure actually came up to more than CFAF 400 000: VIP at CFAF 210 000 + wash house-soak-away + handwash system + IEC (12%).

In the case of the AfDB 1 Sub-programme, the amounts committed on support activities stood respectively at CFAF 475 722 000 for drinking water IEC missions (Cabinet MSA) and CFAF 705 556 228 for sanitation infrastructure and social engineering monitoring-control missions (Groupement EDE – Merlin)⁹ (see table below). Altogether, this accounts for 5.3 % of the overall amount committed on the project (CFAF 22 268 607 000).

Table 1 : Budget committed for the conduct of support activities – AfDB 1 Sub-programme (Senegal)

<table>
<thead>
<tr>
<th>Activities</th>
<th>Human Resources</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Groupement EDE - Merlin</td>
<td>- Monitoring and technical control of public lavatory works</td>
<td>One engineer</td>
</tr>
<tr>
<td></td>
<td>- Monitoring and technical control of family latrine works</td>
<td>One socio-economist</td>
</tr>
<tr>
<td></td>
<td>- Training of intermediaries, masons and teachers</td>
<td>Five social workers</td>
</tr>
<tr>
<td></td>
<td>- Facilitation and sensitization of the population</td>
<td>Six senior technicians</td>
</tr>
<tr>
<td>Cabinet MSA</td>
<td>- Information and sensitization campaign for stakeholders</td>
<td>One socio-economist</td>
</tr>
<tr>
<td></td>
<td>- ASUFOR creation or revitalization</td>
<td>Two supervisors</td>
</tr>
</tbody>
</table>

- Building the capacities of ASUFOR members
  Eight facilitators

- Monitoring of the operation of motorized boreholes targeted by the sub-programme

- Preparation of LWSPs

<table>
<thead>
<tr>
<th>IEC TOTAL</th>
<th>One engineer</th>
<th>CFAF 1 181 278 228</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Two socio-economists</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Five social workers</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Six senior technicians</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Two supervisors</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Eight facilitators</td>
<td></td>
</tr>
</tbody>
</table>

The Nguer Malal LWSP (Local Water and Sanitation Plan) in Senegal estimates the costs of the “Support Measures” component as follows:

“The cost estimate of the Support Measures component stands at CFAF 29 800 000, including (i) CFAF 4 800 000 for sanitation, and (ii) CFAF 10 000 000 for specific studies and activities.”
Table 2: Summary of cost estimates for support measures in the Nguer Malal LWSP

<table>
<thead>
<tr>
<th>Nº</th>
<th>Item</th>
<th>Calculation bases</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>ET-1</td>
<td>DO/NGO services for water management establishment</td>
<td>5.000 FCFA / ASUFOR X 3</td>
<td>15 000</td>
</tr>
<tr>
<td>ET-2</td>
<td>DO/NGO services for lavatory management</td>
<td>200/lavatory X lavatories X 24</td>
<td>4 800</td>
</tr>
<tr>
<td>ET-3</td>
<td>DO/NGO services for individual sanitation</td>
<td>50/individual system X 150</td>
<td></td>
</tr>
<tr>
<td>ET-4</td>
<td>Support – advice to the RC (planning and monitoring/evaluation)</td>
<td>-</td>
<td>10 000</td>
</tr>
</tbody>
</table>

In Mozambique there is a water and sanitation professional training centre (Centre de Formação Profissional de Água e Saneamento - CFP) which provides training in the field of social mobilization and sensitization on hygiene and sanitation issues.

The following table is a budget simulation for training provided to 20 persons, for two weeks, including visits to the field.

This is probably to be considered as a maximum, because it includes training material development (which in principle already exists) and for training provided on the spot and not at the CFP, in Pemba Region, very far away from the capital Maputo, where the CFP is situated.

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**WATER AND SANITATION PROFESSIONAL TRAINING CENTRE**

**SIMULATION OF TRAINING BUDGET**

**Place of training: Pemba**

**SOCIAL SECTOR CAPACITY BUILDING COURSE:**

**PHAST, SANTOLIC & MANUAL PUMPS**

<table>
<thead>
<tr>
<th>Refº</th>
<th>Item</th>
<th>Unit</th>
<th>Qty</th>
<th>No. Tech.</th>
<th>Unit cost</th>
<th>Total costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Teachers’ Fees</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A1</td>
<td>(preparation of a training programme, if it does not yet exist)</td>
<td>days</td>
<td>5</td>
<td>2</td>
<td>205.69</td>
<td>2 057</td>
</tr>
<tr>
<td>A2</td>
<td>Preparation of a &quot;course report &quot;</td>
<td>days</td>
<td>3</td>
<td>2</td>
<td>205.69</td>
<td>1 234</td>
</tr>
<tr>
<td></td>
<td><strong>Sub-Total 1</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td><strong>3 291</strong></td>
</tr>
<tr>
<td>B</td>
<td>Trainers and course logistics</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B1</td>
<td>Trainer 1/1 (and course coordinator) (SANTOLIC)</td>
<td>days</td>
<td>10</td>
<td>2</td>
<td>205.69</td>
<td>4 114</td>
</tr>
<tr>
<td>B2</td>
<td>Trainer 2 (PHAST)</td>
<td>days</td>
<td>10</td>
<td>1</td>
<td>205.69</td>
<td>2 057</td>
</tr>
<tr>
<td>B3</td>
<td>Trainer 3 (manual pumps)</td>
<td>days</td>
<td>6</td>
<td>1</td>
<td>205.69</td>
<td>1 234</td>
</tr>
<tr>
<td>B4</td>
<td>Logistician</td>
<td>days</td>
<td>12</td>
<td>1</td>
<td>172.51</td>
<td>2 070</td>
</tr>
<tr>
<td></td>
<td><strong>Sub-Total 2</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td><strong>9 475</strong></td>
</tr>
<tr>
<td>C</td>
<td>Trainers’ transportation and expenses</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</table>
Multinational Study on Education, Hygiene and Health in the Rural Drinking Water Supply and Sanitation Context

Final report – draft version

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</tr>
</thead>
<tbody>
<tr>
<td><strong>C1</strong></td>
<td>Air transportation (Maputo-Pemba-Maputo)</td>
<td>one</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td><strong>C2</strong></td>
<td>Hiring of vehicle (Taxi) (a)</td>
<td>days</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td><strong>C3</strong></td>
<td>Coverage of Trainer 1/Coordinator’s expenses</td>
<td>days</td>
<td>14</td>
<td>1</td>
</tr>
<tr>
<td><strong>C4</strong></td>
<td>Coverage of Trainer 2’s expenses</td>
<td>days</td>
<td>14</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Coverage of Trainer 3’s expenses</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>C5</strong></td>
<td>Coverage of logistician’s expenses</td>
<td>days</td>
<td>17</td>
<td>1</td>
</tr>
<tr>
<td><strong>Sous-Total 3</strong></td>
<td></td>
<td></td>
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</table>

**DESPESAS COM PARTICIPANTS**

<p>| | | | | | | |</p>
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<tr>
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</tr>
</thead>
<tbody>
<tr>
<td><strong>D</strong></td>
<td>Direct expenses on participants</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>D1</strong></td>
<td>Perdiem of participants, corresponding to 20% of Mt 1 500</td>
<td>days</td>
<td>14</td>
<td>20</td>
<td>7.96</td>
<td>2 229</td>
</tr>
<tr>
<td><strong>D2</strong></td>
<td>Transportation by land between the districts and Pemba</td>
<td>route</td>
<td>2</td>
<td>20</td>
<td>13.27</td>
<td>531</td>
</tr>
<tr>
<td><strong>D3</strong></td>
<td>Hiring of 2 vehicles of 15 places for field visits</td>
<td>days</td>
<td>4</td>
<td>2</td>
<td>185.78</td>
<td>1 486</td>
</tr>
<tr>
<td><strong>D4</strong></td>
<td>Accommodation of participants</td>
<td>days</td>
<td>14</td>
<td>20</td>
<td>31.85</td>
<td>8 917</td>
</tr>
<tr>
<td><strong>Sub-Total 4</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td><strong>13 164</strong></td>
</tr>
</tbody>
</table>

**E** Reimbursable expenses

<p>| | | | | | | |</p>
<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td><strong>E1</strong></td>
<td>Cost of training manuals</td>
<td>manual</td>
<td>20</td>
<td></td>
<td>13.27</td>
<td>265</td>
</tr>
<tr>
<td><strong>E2</strong></td>
<td>Certificates</td>
<td>days</td>
<td>20</td>
<td></td>
<td>9.29</td>
<td>186</td>
</tr>
<tr>
<td><strong>E3</strong></td>
<td>Notepads</td>
<td>notepad</td>
<td>20</td>
<td></td>
<td>1.33</td>
<td>27</td>
</tr>
<tr>
<td><strong>E4</strong></td>
<td>Pens</td>
<td>pen</td>
<td>20</td>
<td></td>
<td>0.16</td>
<td>3</td>
</tr>
<tr>
<td><strong>E5</strong></td>
<td>Other supplies (scissors, paper, markers, etc.)</td>
<td>varied</td>
<td>1</td>
<td></td>
<td>110.67</td>
<td>111</td>
</tr>
<tr>
<td><strong>E6</strong></td>
<td>Hiring of conference hall (equipped and with water)</td>
<td>days</td>
<td>10</td>
<td></td>
<td>159.24</td>
<td>1 592</td>
</tr>
<tr>
<td><strong>Sub-Total 5</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td><strong>2 184</strong></td>
</tr>
</tbody>
</table>

**F** Feeding

<p>| | | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
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<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>F1</strong></td>
<td>Breakfasts</td>
<td>days</td>
<td>11</td>
<td>23</td>
<td>11.94</td>
<td>3 022</td>
</tr>
<tr>
<td><strong>F2</strong></td>
<td>Snacks</td>
<td>days</td>
<td>10</td>
<td>23</td>
<td>2.65</td>
<td>610</td>
</tr>
<tr>
<td><strong>F3</strong></td>
<td>Lunches</td>
<td>days</td>
<td>13</td>
<td>20</td>
<td>11.94</td>
<td>3 105</td>
</tr>
<tr>
<td><strong>F4</strong></td>
<td>Drinks for training hall</td>
<td>days</td>
<td>10</td>
<td>23</td>
<td>0.80</td>
<td>183</td>
</tr>
<tr>
<td><strong>F5</strong></td>
<td>Water for field visits</td>
<td>days</td>
<td>6</td>
<td>23</td>
<td>0.80</td>
<td>110</td>
</tr>
<tr>
<td><strong>Sub-Total 6</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td><strong>3 742</strong></td>
</tr>
</tbody>
</table>

**Total cost = (Sub-totals 1 to 6) 37 558**

|   |   |   |   |   |
|---|---|---|---|
| **G** | Administrative expenses (2% of the total) |   |   |   |
| **Grand TOTAL = Total cost + administrative expenses** |   |   |   | **38 309** |

(a) But in the case where the place of training is far from the hotel, trainers will need taxis, which will also serve for transportation from and to the airport.
Annex 3.2. Cost modelling