The European Commission Somalia Unit
Nairobi

# Project Development: Rural Water and Sanitation Interventions In Northeast and Southern Somalia

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## Volume II
## Preliminary Assessment and Strategic Approaches Report

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# TABLE OF CONTENTS

**LIST OF TABLES**

# ABBREVIATIONS AND TERMINOLOGY

| Acronym | Description |
|---|---|
| ADRA | Adventist Development and Relief Agency |
| AFREC | African Rescue Committee (Somali LNGO) |
| AOM | Administration, Operation and Maintenance |
| ASEP | Advancement for Small Enterprise Program (Kenyan LNGO) |
| Balley | Large natural catchment for surface run-off collection and storage, usually unlined. A water pan. |
| Berkad | Rainwater collection tank or a large sub-surface reservoir |
| CARITAS | Swiss INGO |
| CEFA | Italian-based NGO: European Committee for Agricultural Training |
| CHAST | Children's Hygiene and Sanitation Training |
| CISP | Comitato Internazionale per Sviluppo dei Popoli (International Committee for the Development of Peoples) INGO. |
| CM | Community Management |
| COOPI | Italian-based NGO |
| EC | European Commission |
| ECLO | European Commission Liaison Officer |
| ECSU | European Commission Somalia Unit |
| EPAG | Emergency Pastoralist Assistance Group, LNGO |
| EU | European Union |
| FEG | Food economy group |
| FEZ | Food economy zone |
| GAA | German Agro Action (INGO) |
| GTZ | Deutsche Gesellschaft für Technische Zusammenarbeit GmbH |
| HECA | Horn, East and Central Africa (the regional office of Oxfam in Nairobi) |
| IDP | Internally displaced person |
| INGO | International NGO |
| KAALO | LNGO, Garowe |
| KAP | Knowledge, attitudes and practices |
| Lagga | See Togga. |
| LNGO | Local NGO |
| LRRD | Linking Relief, Rehabilitation and Development |
| m€ | Millions of Euro |
| MDG | Millennium Development Goal |
| MPA | Methodology for Participatory Assessment |
| MPWT | Ministry of Public Works and Transport |
| MSF | Médecins Sans Frontières |
| NGO | Non Government Organisation |
| NYO | Nugal Youth Organisation |
| O&M | Operation and maintenance |
| OGB | Oxfam (GB) |
| OTP | Ocean Training and Promotion (INGO) |
| Oxfam (GB) | Oxfam - Great Britain, a member of Oxfam International |
| PHAST | Participatory Hygiene and Sanitation Transformation |
| PRA | Participatory Rural Appraisal |
| PSAWEN | Puntland State of Somalia, Agency for Water, Energy and Natural Resources (Hay'adda Biyaha, Tamarta & Khayraadka Dabiiciga) |
| PUPA | LNGO, Garowe |
| RRA | Rapid Rural Assessment |
| SACB | Somalia Aid Co-ordination Body |
| SANDI | Somali NGO |
| SAWA | Dutch based INGO |
| SC(UK) | Save the Children (United Kingdom) |
| SHILCON | Shilale Rehabilitation and Ecological Concern (Somali LNGO) |
| SOMDEV | UK based NGO |
| SORSO | Somali Relief Society, LNGO specialising in rural projects |
| SOSS | LNGO, Garowe |
| SPDS | Somalia Peace and Development Society (LNGO Bari Region) |
| SWALIM | Somalia Water and Land Information Management Programme |
| SWAP | Sector Wide Approach |
| Swiss Group | Swiss-based NGO group, including CARITAS |
| SWOT | Strengths, Weaknesses, Opportunities and Threats |
| SWS | LNGO, Garowe |
| TFCT | Techno-Formation Charitable Trust (Somali LNGO) |
| TG | Transitional Government |
| THW | Emergency agency of the German Government |
| TNG | Transitional National Government |
| Togga | Streambed of a wadi or seasonal river. |
| TOR | Terms of Reference |
| UNA | Una terra mondo di tutti (Italian based INGO) |
| UNDOS | United Nations Development Office for Somalia |
| UNDP | United Nations Development Programme |
| UNICEF | United Nations Children's Fund |
| UNIFEM | United Nations Development Fund for Women |
| UNISOPO | United Somali Professional Organisation (Somali LNGO) |
| VDC | Village Development Committee |
| VLOM | Village level operation and maintenance |
| VWC | Village Water Committee |
| War | Artificial water reservoir, dug depression or shallow earth dam, normally unlined that dries after rainy season (also wharo) |
| WEDC | Water, Engineering and Development Centre, Loughborough University |
| WES | Water and environmental sanitation subcommittee |
| WHO | World Health Organisation |
| WSISC | Water Supply Infrastructure and Sanitation Committee |
| WSP | World Bank Water and Sanitation Programme |

# EXECUTIVE SUMMARY

This document, a "Preliminary Assessment and Strategic Approaches Report" is the first section of the second volume prepared during a mission to analyse "Rural Water and Sanitation Interventions in Northeast and Southern Somalia" under a framework contract financed by the European Union and implemented by Montgomery Watson Harza in consortium led by Parsons Brinckerhoff.

The strategy builds on the European Commission "Strategy for the Implementation of Special Aid to Somalia 2002 – 2007" (SISAS) and the results of a workshop held on 6 November, 2003 in close cooperation with the SACB WSISC (Somalia Aid Coordination Body Water Supply Infrastructure and Sanitation Committee) committee and other stakeholders where the proposed strategy was analysed.

Somalia is an arid and semi-arid country with 80%[1] of the population living in general poverty and the same proportion dependant on agriculture and livestock for a livelihood. Men, women and children from settled communities have water needs that distinguish the priority for water at an acceptable quality. In the case of the nomadic and agro-pastoralist population the requirement is for sufficient quantity to meet livestock needs. The Somali rural population has adopted a risk minimization strategy with water supplied from multiple sources, in order to survive in the harsh environment. At the same time, there is a need to strengthen hygiene and sanitation practices to encourage the uptake of acceptable standards.

A stakeholder and Strengths, Weaknesses, Opportunities and Threats (SWOT) analysis concluded that there is potential for Puntland State of Somalia Agency for Water Energy and Natural Resources (PSAWEN), Non Government Organizations (NGOs) and the private sector to collaborate closely with rural communities to meet the water supply and sanitation objectives of each segment of the population. Moreover, in many parts of Somalia, the position in the relief-development continuum now permits a move from rehabilitation towards long-term development programmes.

Currently diverse international assistance is channelled to the sector and an analysis of alternative implementation strategies concludes that community management offers the best potential for long-term sustainability. Furthermore, it is recommended that implementation agencies operate in cooperation with on the ground local partners. The strategy will be coordinated by the EC (European Commission) Delegation and will also be developed in coordination with other aid interventions through the SACB WSISC. Projects will be implemented in close cooperation with communities using a community management focus, supported by technical assistance from the NGO implementing agencies.

A problem analysis of the sector, development of cascaded logical frameworks and the context of the proposed assistance concluded with a strategy purpose of "Increased access to water and sanitation" *linked to* the SACB strategic framework. The results of the strategy include:

- Sustainable capacity for enhanced community management
- Local capacity strengthened (in administrations and NGOs)
- Water and sanitation systems installed and functioning
- Technical and social data collected and disseminated

The strategy, to be developed using participative community management as an integral part of implementation, will build on the strengths of local partners and develop participatory techniques at the community level such as Participatory Rural Appraisal (PRA) to consolidate long term sustainability. PRA activities will incorporate the positive experiences of Deutsche Gesellschaft für Technische Zusammendarbeit GmbH (GTZ) in elaborating Participatory Integral Community Development (PICD) plans and the work of Action Aid in Somaliland. The implementation of the strategy will develop a solid team building approach to the work of agencies and partners. Hygiene and sanitation orientation will be developed with communities building on the successful experience of SC (UK) and Oxfam using participatory methodologies.

[1] Source World Bank Watching Brief 2003

The need to strengthen local institutional capacity was clearly highlighted during fieldwork and in stakeholder workshops. An analysis of training requirements will form the basis of management assistance to the administrations and NGOs to promote positive implementation practices. The work in these two areas will achieve concrete improvements in the ability of communities to administer, operate and maintain the systems, significantly contributing to the achievement of the overall objectives.

Water and sanitation systems will be constructed following the principles of using self-help and community management in response to community demand. The design process requires that adequate information is available at the community, district and regional level. The Somalia Water and Land Information Management Programme (SWALIM) will generate the water and sanitation sector information required to support the implementation of the key strategy components.

Monitoring of achievements will be undertaken at each level of objectives in the logical framework narrative summary. Risks that may affect project implementation include the deterioration in the political or security situation as well as significant epidemics, which could affect the health and livelihoods of the population.

Sustainability will be encouraged by the use of the participatory methodologies (PRA, PHAST, CHAST). Water extraction systems, as well as sanitation infrastructure will be selected to meet demand, recognizing that water has an economic value. Integrated Water Resource Management of micro and macro river basins is an essential aspect of sustainable water supply. Gender sensitive methodologies will be employed at the community level to facilitate the participation of women and children in decision making processes at the community level, building on the valuable work of SC (UK) in Belet Weyne.

Stakeholders are defined across the spectrum of interested parties classifying communities by type of production system as well as analysing the facilitating role of the administrations or NGOs as implementers.

In summary, four key areas for project implementation are envisaged. One will focus on capacity building of central administration institutions in NE Somalia, such as PSAWEN and the Ministry of Works and Transport. In two areas emphasis will be placed on community level implementation in defined geographic locations, following community management principles. Where there is a functioning local administration, for example as in regions of NE Somalia, interventions will develop the capacity of the regional administration offices. The fourth area is the strengthening of the information flow on water and sanitation issues.

The financial resources required for strategy implementation, based on the achievement of MDG goals in target areas, are indicated below. The second table shows the currently available finance, through the EDF and potential co-financing. This available finance will cover less than one third of needs for external finance in Northeast, Central and Southern Somalia to achieve the MDGs.

**External finance requirements**

| Financial years | NE (m€) | Southern (m€) | Total (m€) |
|---|---|---|---|
| 2004– 2008 | 9.000 | 8.950 | 17.950 |

**Available sources of external finance**

| Financial year | EDF (m€) | Co-finance (m€)[2] | Total (m€) |
|---|---|---|---|
| 2004-2005 | 4,000 | 1,200 | 5,200 |

To sum up the overall objective of this strategy nests within the EC Rural development and food security strategy. It is compatible with the overall objective of the SACB WSISC strategic framework for coordinated approaches and potential implementing agencies are INGOs or other agencies with experience of water and sanitation projects in Somalia as well as a willingness to carry out implementation with partner LNGOs.

[2] 1.2 m€ is earmarked for the South while the same source has destined 1.5 m€ for Somaliland

# 1. INTRODUCTION

This report represents the second volume of the documentation produced during an assignment completed for the European Commission *"Project Development: Rural Water and Sanitation Interventions in Northeast and Southern Somalia"* between 19 September and 20 November. The mission covered the evaluation of the two ongoing rural water projects in addition to a feasibility study for a strategic approach to water and sanitation interventions in the Northeast, Central and South Somalia. The mission concluded in the elaboration of technical supporting documents to be used by Commission services for the purpose of a Call for Proposals. The terms of reference for the study are annexed to the first volume, project evaluation.

The inputs for this assessment were gathered during the fieldwork for the evaluations in Puntland and Belet Weyne, at a workshop in Garowe attended by representatives from a cross section of the Puntland administration and non-government organisations, as well as visits to agencies operating in Jamaame and Jowhar. Extensive information gathering was completed with different stakeholders who have a representation in Nairobi.

The initial proposals for the strategy were presented to water and sanitation sector stakeholders at a workshop held in place of the regular Somalia Aid Coordination Body Water Supply, Infrastructure and Sanitation Committee (WSISC) meeting on 6 November, 2003. The conclusions of this workshop were a major contribution to the development of the strategy presented in this report.

The first section of this volume contains the proposal for a strategic approach and the second section covers the technical papers for a call for proposals.

# 2. BACKGROUND

Somalia is one of the poorest countries in the world with an annual per capita income of less than USD200 per year[3]. The economy is largely dependant on the exploitation of natural resources, principally livestock and agriculture.

The civil war which followed the fall of the Siad Barre regime in 1991 lead to the widespread destruction of civil infrastructure and the collapse of public services. The high rates of morbidity and mortality among infants[4] are an illustration of the profound effect the lack of a recognized government and the absence of public services have had on the civilian population.

The poverty, combined with the effects of civil war and non-existence of any established national government has caused a significant weakening in the coverage of water supply and sanitation services. In the naturally hostile climate of Somalia, with prevailing arid and semi-arid conditions throughout much of the country, the availability of water is vital for survival. This very low level of service is reflected in other sectors of the rural population, and overall only 18%[5] have access to improved water supplies.

The main types of water sources in the country vary according to geographic area. In the northeast, subsurface water is generally saline and often the only permanent source of water can be found in deep boreholes.[6]

The level of sanitation services was reduced before the civil war and the coverage has certainly not increased since the early nineties. At present only 48.5%[7] of the overall population have access to improved sanitation, whereas only 20% of the rural and nomadic population have access to the same service.[8]

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[3] UN Somalia fact sheet 14 November 2003

[4] See the detailed figures in the problem analysis of section 4

[5] UN Multiple Cluster Indicator Survey 2001

[6] For a full analysis of the types of water sources present in the region see section 4.2. Consumers and their needs

[7] UNICEF Somalia 2000

The relative stability in the North Eastern region of Somalia has encouraged a large influx of people who migrated from the southern areas affected by the civil unrest. This has contributed to reduce the per capita availability of water in this dry region, where the inhospitable climate makes water a vital resource.

This proposal for a Strategic Approach is a response to the need to develop a coordinated focus to resolving the critical issues among the rural population in specific regions of Somalia of the lack of water supply and sanitation services where the relative stability permits a concerted rehabilitation and development effort.

# 3. POLICY AND STRATEGIC FRAMEWORK

Against the background of the lack of a functioning government and the difficulty of working with multiple and fragmented administrations, the Strategy for the Implementation of Special Aid to Somalia (SISAS) was approved by European Commission in April 2002. The document promotes the need to gradually move away from emergency assistance and solely a rehabilitation response to one of longer-term development.

EC cooperation objectives, in countries such as Somalia, where there is not established government, concern institution building and social development activities, laying emphasis on the needs of the most vulnerable sections of the population.

Faced with the absence of national counterparts the international aid community developed the Somalia Aid Coordinating Body as a mechanism for coordinating the provision of aid to Somalia. Furthermore, the same entity assumed a key role of consultation with donors, implementing partners, local administrations and communities to "develop comprehensive sector strategies focusing on the role of the community, level of ownership and the need for long term sustainability".[9]

The coordination of international aid through SACB is enshrined in the mandate:

- To provide policy guidance and practical assistance to implementing agencies on issues of policy, security and operational constraints.
- To provide policy and operational coordination for rehabilitation and development activities particularly at the sector level.
- To develop recommendations for the allocation of resources to different regions.
- To provide a base for possible resource allocation.

The SACB works through a network of committees, which are supported by the administrative efforts of the Secretariat. One of these sectors is the Water Supply Infrastructure and Sanitation Committee (WSISC) and the SACB provided all the necessary support to implement a workshop to analyse a potential strategic approach to work in the water and sanitation sector on 6 November, 2003 in Nairobi. At this workshop, the options for the approach were developed by more than 31 stakeholders, from 22 agencies and this current document represents the consensus achieved at that workshop.[10]

Participation during the development of the strategy involved different the stakeholders (international implementation agencies, Somali administrations, local NGOs as well as the beneficiary communities). The strategy, presented here, builds on the workshop held on 6th November 2003 and represents the broad agreement of the participants. There is, therefore, great potential for successful implementation.

[8] UNDP World Bank Report No 1 Somalia Watching Brief 2003

[9] SISAS page 2, paragraph 3

[10] An abridged report of the workshop is to be found in Annex 5.

# 4. PROBLEM ANALYSIS

## 4.1. INTRODUCTION

Somalia is an arid and semi arid country covering 637,540 square kilometres on the horn of Africa with a coast line stretching 3,025 km from Kenya in the South to Djibouti in the North West.

Ranked as one of the poorest countries in the world, it has a population of approximately 7 million in 2002 (some sources put the figure as high as 8 million). Approximately 66%[11] of the population live in rural areas, this figure includes the sedentary population as well as nomadic pastoralists and approximately 80%[12] of the overall population live in general poverty. The percentage of the population living in extreme poverty is 23.5% in urban areas and 53.4% in rural areas[13].

The situation of poverty and extreme poverty is exacerbated by the general state of insecurity that exists in the country. Widespread environmental degradation in the arid areas (as a product of the climate but also worsened by cutting of shrubs for charcoal and overgrazing) as well as the removal of vegetation in the more fertile riverine areas contributes to the high level of poverty, as the fertility of soil is lost.

Some 80% of the population are dependant on agriculture and livestock for a living[14], however the real figure may be higher as the majority of the rural population follow a livelihood based principally on animal husbandry and agriculture. Livestock rearing is the major source of livelihood (and perhaps the only viable sustainable livelihood in the arid environment of northern Somalia) for nomads. However, there is an ongoing tendency for, at least part of, pastoral families to settle in locations close to support services, like water supplies that results in new livelihood opportunities, such as trading.

## 4.2. CONSUMERS AND THEIR NEEDS

The rural and nomadic proportion of the population have consistently less access to basic services and lower health indicators than the urban population, although this latter group is also severely affected by the lack of services and have low basic health indicators as well. For example, in the North East only 25.7%[15] of the population have access to safe drinking water.

The lack of access to basic services such as health services, potable water and sanitation facilities contributes to very a low average life expectancy of 47[16] years. The infant mortality rate is 132/1000 while the under 5-mortality rate is 224/1000.[17] A principal cause of these high mortality rates is diarrhoea that is definitely is one of the consequences of unsafe water coupled with poor hygiene and sanitation practices.

In addition to the figures given above, an illustration of the level of poverty among the rural and nomadic population is given by the percentage of the households who have a health post available that reaches only 24%.[18] This should be contrasted with the figure of only 15% who indicated that the services were affordable[19] which is an illustration of how precarious is the economic situation of rural families.

In the field of water and sanitation, the figures show a consistently low coverage. In rural areas, among the nomadic population only 11.5% of the population have access to safe water and only 2.6% have access to

[11] UNDP World Bank Report No 1 Somalia Watching Brief 2003

[12] Idem - per capita income of less than USD2/day

[13] Idem

[14] Idem

[15] UNICEF MICS – Somalia 2000

[16] CIA World Fact Book

[17] UNICEF (est 1999)

[18] UNDP World Bank Report No 1 Somalia Watching Brief 2003

[19] Idem

improved sanitation.[20] In field visits to Puntland and Belet Weyne, undertaken during the evaluation of the Oxfam and SC (UK) projects it was clearly demonstrated that there is an overriding need for safe and convenient water supply and sanitation services. In particular women indicated that, before the water supply project and installation of latrines the lack of privacy meant they had to walk long distances to find a private place to defecate.

To compound the difficulties of access to safe water, the characteristics of the population and the current type of service also limit the potential for resolving the problem of the provision of basic services as shown in the table below:

**Table 1. Water needs of different consumer groups**

| GROUPS | WATER NEEDS | ACTUAL SERVICE |
|---|---|---|
| ***Pastoralists*** | Quantity not quality | Shallow wells, berkads, strategic boreholes, limited sanitation services, no chlorination |
| ***Agro-Pastoralists (semi-sedentary)*** | Quantity is important<br>Training stimulates demand for quality | Shallow wells, berkads, boreholes, limited sanitation, no chlorination |
| ***Sedentary population*** | Quality water in quantity for household uses | Shallow wells, berkads, boreholes, limited sanitation, no chlorination |
| ***Peri-urban areas*** | Quality in sufficient quantity | Donkey carts, limited sanitation or shared facilities, no chlorination |

In all the groups, the poor hygiene and sanitation practices leave the population susceptible to the high incidence of water born diseases previously mentioned.

According to the World Bank Watching Brief (2003), the rural and nomadic population have to travel a distance of up to six kilometres to a water source in the dry season. This is the mean and many families will have to travel further which implies a significant investment in time and family resources to gain access to sufficient water.

The problems described above are further compounded by the quality of water that is available from shallow wells and berkads, which are not usually covered and are subject to environmental contamination. The installations inspected during the assessment would have significant faecal coliform contamination. Furthermore, in households water is not generally sterilized or boiled (see Annex 2).

The requirements for water supply to serve the needs of the nomadic pastoralists and semi-nomadic agro-pastoralist population present a major challenge. The provision of additional fixed water points (strategic boreholes, shallow wells or clusters of berkads) causes appreciable environmental degradation for a large radius round the water point. The main factor that contributes to this situation is the higher concentration of livestock around the water source and the consultants were able to verify this effect during field visits. Mobile water sources are not possible so a specific solution to water supply and sanitation must be defined for the nomadic population, in harmony with the complex, sustainable relationship that has been built up over centuries between the nomads and their rangeland environment.

[20] UNICEF (2001)

**Table 2. Characteristics of different types of sources**

| TECHNOLOGY | APPROPRIATENESS | SUITABILITY | SUSTAINABILITY |
|---|---|---|---|
| ***Berkad*** | Very appropriate, only affordable technology for livestock and human consumption where other shallow groundwater is not available. | Preferred solution for small villages with no shallow ground water. Very suitable for provision of low cost water. Present design could be suitable for human drinking water with further safeguards. | A technology that has been in use for over 60 years. Is being replicated by private owners without external assistance. Sustainable VLAOM. |
| ***Shallow well*** | Very appropriate in areas with shallow groundwater. Potentially, conditions exist for VLAOM hand pumps. Given right conditions and construction, wells could provide a permanent source of quality water. | Preferred solution in small villages with shallow ground water. Allows upgrading to hand pump and/or solar pump. | Open wells are dug by the community. There is potential for sustainable VLAOM with training and are operated by the same. |
| ***Whar*** | Technology suited to areas with appropriate geological formations | Meets the demand for a temporary source of water | Technology is eminently community managed and sustainable |
| ***Donkey cart delivery*** | Technology is very apt for poor urban areas – requires upgrading with hygiene & sanitation education as well as chlorination. | Meets demand for sustainable water supply at relatively low cost | The large number of service providers reduces dependence on one source – no technological limitations |
| ***Borehole and small system*** | Necessary to provide a complementary permanent water source during dry season and prolonged periods without rain. | Most officials and livestock owners express a desire for additional permanent water sources, for which a borehole was seen as the only possible solution. | Currently, the sustainability of borehole operation in rural areas depends, to a certain extent, on the provision of external finance for repair and rehabilitation as well as the contribution from effective CM. AOM is sustainable with local fee collection. Unsustainable environmental impacts. |

Nomadic and rural families must depend on multiple water sources to ensure adequate access to water for human and livestock consumption throughout the year. This "risk reduction" component will be an essential facet of the proposed strategy. The challenge faced in the next 5 years of the proposed EU assistance is to meet the water and sanitation needs of the nomadic and rural population, without causing irreversible damage to the rangelands.

Although approximately 66% of the population is rural[21], an increasing number of people are settling in the peri-urban areas of small towns. The water supply system in the town of Belet Weyne, where Save the Children (UK) have been working for 10 years, is characterized by many small scale supply companies, providing water from rustic, shallow wells, with donkey carts and jerry cans as the main distribution system. The water is supplied through up to 20 small private operators, ensuring a wide coverage and regular supply but there is little information about water quality. Although the supply system does have disadvantages in terms of quality, the relatively large number of suppliers does permit market forces to regulate price levels. During the period of high cholera risk, the local cholera task force monitors chlorine concentration in the bulk water, which is a certain level of regulation. The consultants were informed that there is some administrative control, for example one Sector Committee (with support from consumers) closed two wells that were supplying water mixed with river water during the cholera season.

Against the background of the need to address the water supply and sanitation requirements of the rural and peri-urban population, is the fact that the whole water and sanitation sector in Somalia is characterized by limited institutional capacity. PSAWEN, one of the strongest administrations in Puntland, is the indicated entity to regulate and support developments in the water and sanitation sector. However, a lack of human re-

[21] UNDP World Bank Report No 1 Somalia Watching Brief 2003

sources and inadequately trained staff were among points that were identified by a working group as weaknesses during a SWOT analysis in the Garowe workshop[22] where it was concluded that:

- Water for livestock is a higher priority than that for human consumption
- Public – private partnership experience is proving positive in water supply and could be applied to environmental management
- PSAWEN should regulate and coordinate the location of new boreholes

In various instances, the workshop highlighted the institutional sector weaknesses, stressing the need to develop public-private partnerships. The evaluation of two water and sanitation projects in Somalia also identified the lack of hydrological and hydro-geological information. There is the evident potential to coordinate with SWALIM to have a clear picture, with ready access to this sort of data that is essential to ensure responsive strategic and short term planning.

One of the long-term effects of the previous, centralized, Siad Barre regime has been to weaken the ability of local communities to meet their needs, following a community management "modus operandi". The widespread absence of state sector institutions throughout Somalia implies that the community management approach is perhaps the only effective way of ensuring sustainable service provision to the rural, nomadic and peri-urban populations in Somalia. However the legacy of the regime was an inclination to an attitude of "the state will assume responsibility" towards service provision. It is to the credit of the Somali population that community management initiatives are now emerging as a viable alternative for development in the divided Somali society.

Food insecurity is widespread in Somalia which has been a food aid recipient since the 1970s and according to the World Food Programme Country brief an estimated 750,000 people in Somalia, 12 percent of the country's population, currently require food assistance. Of these, some 120,000 are in Mogadishu, 514,000 in southern and central Somalia and 50,000 are in the northeast and 67,000 are in northwest Somalia, including the Sool and Sanag regions.

Global malnutrition rates ranging from 17-21 percent have been assessed in many regions of the south with severe under nourishment rates of 2-4.6 percent.[23] The worst affected region is Bakool in the south, where almost half the population is considered in need of some form of food assistance. Food assistance reached 113,310 MT/year between 1994 and mid-1999 and dropped to 41,000 MT in 2000, although poor targeting of food aid has reduced the effectiveness of distribution.

Agricultural production experience is limited in Somalia and farming was only introduced in the last part of the 19th Century. The high proportion of the population dependant on pastoralism as a livelihood emphasizes the relevance of livestock as opposed to agricultural production for much of the rural population. The Somalia saying "nafta biyo, nolosha aano" (water is life, milk is living) demonstrates the importance of livestock as a means of providing for food security.

In the final outcome, the dependence of the population on distant drinking water sources and the scarcity of sanitation facilities, both negatively impact on the time available to rural dwellers for productive activities. Furthermore, the poor quality of water and lack of sanitation facilities weakens the productive ability of the people.

To sum up, the population of rural Somalia faces the multiple challenges of surviving in an arid climate, with scarce resources and limited potential for external assistance, when compared with requirements. Future interventions in the field of water and sanitation should offer solutions to meet consumer needs that recognize the existing time-tested risk minimization strategies while maximizing the potential benefit from convenient water supply coupled with hygienic sanitation services.

[22] See Annex 5 for conclusions

[23] Please refer to www.unsomalia.net for more details

## 4.3. LOCAL STAKEHOLDERS AND THEIR CAPACITY

This section contains an analysis of the key stakeholders, namely the communities, non-government organisations and the emerging administrations, who will participate in the implementation of the strategy. The principal stakeholders, who are the communities, are divided up into sub-groups, who have different, but clearly defined interests in the water and sanitation sector, as described in Table 4: Stakeholder analysis - communities (by food economy group, FEG). The analysis covers both rural groups as well as the peri-urban dwellers, in recognition of the demand that exists in these areas.

### 4.3.1. Strategic analysis

The heterogeneous nature of the 3 major groups of rural communities does not facilitate the task of analysis. Nevertheless, in the following table a description of the characteristics of each major group of rural dwellers is presented.

In particular, for the group of settled agriculturalists, it will be important to ensure that adequate environmental education is undertaken, to prevent further damage to the environment (such as cutting shrubs or trees for charcoal). The full impact of the strategy will only be felt when it is possible to combine software (training and community organization) with hardware (the installation of water supply and sanitation services)[24].

[24] This conclusion builds on one of the major outputs to the strategic planning workshop held on November 6th 2003 with stakeholders who usually assist at the regular SACB meetings.

**Table 3. Stakeholder analysis - institutional stakeholders**

| STAKE-HOLDER | CHARACTERISTICS | INTERESTS AND EXPECTATIONS | SENSITIVITY TO AND RESPECT OF CROSS-CUTTING ISSUES | POTENTIALS AND DEFICIENCIES | IMPLICATIONS AND CONCLUSIONS FOR THE STRATEGY |
|---|---|---|---|---|---|
| PSAWEN | Semi autonomous regional administration body. | Ensuring water supply<br>Less emphasis on sustainability and sanitation.<br>Recognizes that the role of PSAWEN should not involve implementation. | The knowledge of main issues needs to be strengthened. | PSAWEN is very open to building up knowledge and strengthening positive practices.<br>Need to strengthen priority for sanitation.<br>Limited potential for information processing and management without vital training and hardware. | Develop agency wide institutional strengthening in: planning, organization and staffing, project direction and control, financial reporting and monitoring.<br>Strengthen regulatory role and institutional support.<br>Strengthen flow of information to and from partners. |
| NGOs | Autonomous non-governmental institutions with national or international support responding to specific agency objectives. | Promoting sustainable community development.<br>Promoting cross learning and building on experience.<br>Open to building CM. | Fully aware of crosscutting issues.<br>Potential to improve effective approaches. | Some INGOs are sole implementers while others cooperate with local NGOs. | Encourage local partnerships.<br>Build on participation with local and national administrations.<br>Strengthen ability to train others in crosscutting issues and effective management.<br>Coordinate closely with INGOs, local and national administration. |
| International Donors | Multilateral or bilateral agencies responding to specific published objectives. | Transparency.<br>Achievers of objectives.<br>Gender and peace building. | A strong emphasis on cross cutting issues. | Potential to support implementation.<br>Limited concrete role as initiator can orientate implementing agencies. | Important to develop clear policies and guidelines to support gender sensitive and poverty sensitive interventions.<br>Need to provide support to ensure sustainable interventions and orientate implementation. |

In addition to the institutional analysis, a breakdown by Food Economy Group is presented in the next table.

## Table 4. Stakeholder analysis - communities (by food economy group, FEG)

| FEG | CHARACTERISTICS | INTERESTS AND EXPECTATIONS | SENSITIVITY TO AND RESPECT OF CROSS-CUTTING ISSUES | POTENTIALS AND DEFICIENCIES | IMPLICATIONS AND CONCLUSIONS FOR THE STRATEGY |
|---|---|---|---|---|---|
| PASTORALISTS[1] | Nomadic, male dominated.<br>Livestock is main source of income.<br>Organized along traditional lines organized following elders.<br>Extreme and general poverty. | Minimize risk of failure.<br>Water for livestock is quantity not quality.<br>Able to move in response to available resources / water and pasture for livestock.<br>Require strategic permanent water sources for marketing routes. | Live in harmony with delicate environment of rangelands.<br>Islamic culture favour male dominated decision taking in the family and village.<br>Open to gender sensitive approaches. | Tremendous knowledge of delicate rangeland environment.<br>Limited positive hygiene and sanitation practice and knowledge.<br>Require multiple water sources<br>Fixed water source weakens potential of nomadic life.<br>Organized on traditional hierarchical lines with limited gender and poverty focus.<br>Gender focus needs to be strengthened in patriarchal society. | Mobility requires positive hygiene and sanitation practices.<br>Avoid installation of fixed water points or latrines.<br>Ensure sustainability by motivating nomadic CHW to strengthen uptake of practices.<br>Emphasize gender and poverty sensitive training, develop participation and analysis of decisions for women and the poor<br>Services should be adapted to livestock and human. |
| AGRO-PASTORALISTS | Semi nomadic, combined livestock and agricultural production.<br>Organized along clan lines and with elders. | Balance economy with income from livestock and agriculture.<br>Fixed domicile with partial mobility for water and for livestock. | Diversified source of family income. | An interest in short term gains e.g. charcoal production.<br>Gender imbalance.<br>Positive community unity.<br>Water sources and sanitation can be provided for settled members of community. | Develop hygiene and sanitation education.<br>Install water pumps.<br>Develop environmental management education to discourage settlement in delicate rangelands.<br>Support CBO formation for AOM with CM. |
| SETTLED AGRICULTURALISTS | Profit maximizers.<br>Settled.<br>Living in poverty and extreme poverty. | Developing need for quality water, but hygiene and sanitation education needs reinforcing. | Subsistence farmers, dependent on market for certain income, goods and inputs. | Potential to provide hygienic water source for the community<br>Sanitation services can be provided. | Combine hygiene and sanitation education with physical installation of water and sanitation services.<br>Strengthen CBO management of water and sanitation services. |
| PERI-URBAN DWELLERS | Profit maximizers.<br>Dependent on support from rural areas.<br>Income from casual and formal labour.<br>Majority living in poverty. | Ensure source of income and meet basic needs through selling labour and small-scale commerce.<br>Looking for quality water source. | Environment is not a priority. | Potential to provide hygienic water source for the community.<br>Sanitation services can be provided. | Combine hygiene and sanitation education with physical installation of water and sanitation services.<br>Strengthen CBO management of water and sanitation services. |
| REGIONAL AND NATIONAL ADMINISTRATION | Appointed body. | Strong emphasis on immediate benefits (e. g boreholes) without analysing long term environmental effects.<br>Interest in strengthening management skills.<br>Interest in developing integration of programmes with state objective / priorities. | Acquiring knowledge, which needs to be strengthened in gender issues. | Patriarchal society limits role of women and the poor.<br>Developing sensitivity to the environment.<br>Need to strengthen participatory approaches.<br>Can develop regulatory and TA role. | Develop across the board awareness raising, participation in analysis and option selection (particularly of women).<br>Projects should cooperate closely with line ministries in identification and implementation of projects in line with administration priorities, whilst meeting strategy objectives. |

The pastoralists should build on their detailed local and regional knowledge to consolidate their positive relationship with the rangeland environment. The interventions of the project should be limited to hygiene and sanitation education that the nomads can take with them, rather than more fixed water points which are an anathema to their life style. Another important point is to reinforce positive environmental management practices, particularly in the areas surrounding strategic boreholes.

The agro pastoralists, who may have access to fixed water points in the established communities should benefit from environmental management training, for application in and around the settlements as well as more remote areas. This would tend to mitigate potential environmental damage due to the settlement of livestock around fixed water points with the consequent degradation of the environment.

The settled farmers are agricultural producers who have a more pronounced awareness of the importance of quality water (as opposed to quantity). Nevertheless, hygiene and sanitation education is important to develop full awareness of positive practices. The settled farmers as with peri-urban dwellers are in a clear position to implement full community management of services, which will contribute to long-term sustainability and can make good use of the hygiene and sanitation education as well as water and sanitation hardware.

### 4.3.2. SWOT analysis

The SWOT analysis of the sector institutions is restricted to Puntland, where it has been possible to generate valid information. The analysis itself is taken from a workshop held in Garowe with stakeholders from the administration, international organizations, NGOs and others on 5th October, 2003. The results of the analysis are followed by text which contains conclusions relevant to the development of the strategic approach.

The analysis was conducted for the administrative institutions, PSAWEN, NGOs and the private sector. During the "SWOT" the objective of "implementing a strategic (long term) approach for water supply and sanitation interventions in rural north-east Somalia, that adopts a community management approach to administration, operation and maintenance" oriented the analysis. The conclusions of SWOT analysis for each sector are shown in the following table:

**Table 5. SWOT analysis administrative institutions in NE Somalia and PSAWEN**

| | |
|---|---|
| **Strengths**:<br>Improved security<br>Improved community participation<br>Improved infrastructures<br>Improved local institutions at state and community levels. | **Weaknesses**:<br>Inadequate emergency awareness<br>Lack of adequately trained human resources<br>Lack of gender balance<br>Inadequate capacity building<br>Implementation and empowerment of water policy<br>Inadequate funding sources. |
| **Opportunities**:<br>Increased private sector<br>Continued funding base. | **Threats**:<br>Unpredictable weather conditions<br>Uncertainty of security conditions. |

**Table 6. SWOT analysis international and local NGOs**

| | |
|---|---|
| **Strengths**:<br>Ability to secure resources;<br>Experience in planned interventions. | **Weaknesses**<br>Inadequate knowledge of local environment;<br>Inadequate funding;<br>Weak coordination;<br>Absence of guiding water supply policies.<br>LNGOs have little experience and function as contractors. |
| **Opportunities**:<br>Continued donor support;<br>Improved security and infrastructure;<br>Improved community participation and contribution;<br>Increased private sector involvement. | **Threats**:<br>Uncertain security situation.<br>Uncertain continued donor support. |

**Table 7. SWOT analysis private sector**

| | |
|---|---|
| **Strengths**:<br>Willingness;<br>Resource availability. | **Weaknesses**:<br>Inadequate human resources;<br>Inadequate capacity building. |
| **Opportunities**:<br>Business opportunities. | **Threats**:<br>Uncertain investment protection rights by law. |

The results of the SWOT analysis clearly show that there is tremendous potential for the stakeholders (PSAWEN, administration and NGOs) to mutually reinforce the work of each and achieve a solid strategic approach to water supply and sanitation.

The analysis highlighted the need to provide relevant capacity building to the Administration and PSAWEN, while also improving the gender focus, emergency awareness and strengthening the capacity of all the stakeholders. An opportunity, which would have been particularly relevant to this strategy under other circumstances, is the potential to work with the private sector. This could, in the future, build on the strengths of the local administration at different levels.

INGOs, as was very amply demonstrated in the evaluation of the SC UK and Oxfam projects, have tremendous potential to foster community management while also possibly encountering a potential lack of local knowledge. The recommendation to work with LNGOs will compensate for this weakness.

The work of the private sector is limited by uncertain investment protection rights, but the dynamism of the sector would build on "resource availability" and "business opportunities".

## 4.4. POTENTIAL IMPLEMENTING AGENTS

The major interest groups involved in the implementation of the strategy are defined in the stakeholder analysis. Specifically the following implementing agents are contemplated:

- Rural communities;
- Local and international NGOs;
- Administration institutions.

The roles of these groups are analysed in section 7.8.1. Roles of stakeholders.

The proposed strategy will be implemented in rural and urban communities (in principle of less than 10,000 inhabitants) using a community management focus. NGOs would provide TA, management resources and skills to communities to implement rural water and sanitation projects.

PSAWEN would have the role as the administration responsible for the coordination of activities related to the different entities involved in the project from the administration NE Somalia, at the regional, district and local level. The essence of this assistance is to ensure effective input from administration stakeholders.

The principal actors in the project are the rural and peri-urban communities, who will assume an increasingly important role for implementation. They will take responsibility for village level implementation as the project progresses and experience is acquired. Initial responsibilities would include selection of levels of service or organization of community inputs. It is recommended that the level of responsibility for the community be developed to include the management of financial resources, selection of contractors, acquisition of goods and services. In this context the NGOs would provide essential TA to the communities in the implementation process, ensuring transparent management and accountability.

The training and skills transfer required to achieve this level of community management will be provided by the NGOs, responding to a process of competitive bidding and transparent selection of the most advantageous offer, taking into account social, technical and financial parameters.

Overall coordination of the strategy will be the responsibility of the ECSU, while specific administrative and managerial processes will be contracted to experienced implementing agencies such as international NGOs or UN agencies.[25] As with the all other goods and services required to implement the strategy, the selection of an entity to undertake any administrative and managerial processes would be the subject of a call for proposals. However in this case, given the importance of the work, the bidding process should be open to non-profit making legal persons.

## 4.5. LINKING RELIEF, REHABILITATION AND DEVELOPMENT (LRRD)

This brief LRRD analysis focuses on the situation that exists in NE Somalia. There, the progress of civil society and CBOs point towards rehabilitation and development rather than relief. The strength of the local administration in Puntland also implies that the political climate is sufficiently consolidated to address these fields. The evident willingness of communities (as verified during the field visits for the evaluation of the Oxfam (GB) project) to take a protagonist role in community management of infrastructure clearly shows that development is possible. Moreover, if the present stability continues and there is a further favourable evolution of administration structures, it should be possible to consolidate development activities rather than just consider a rehabilitation approach.

In the centre and south of Somalia, the socio-political situation is much more diverse. In some areas the relative stability has permitted private business and public services to be re-established. In others there are still serious security problems and local administrations are ineffective. In this part of Somalia, the proposed strategy in water and sanitation should primarily be seen as rehabilitation, but incorporating the development of community capacity. Nevertheless, it is also true to conclude that, in some areas, water and sanitation interventions are relief operations to prevent loss of life and should continue to be financed by relief budgets from specialized agencies.

## 4.6. EMERGENCY PREPAREDNESS

Implementation agencies working on the ground in Somalia with EC finance are expected to cooperate with ECHO and other agencies in establishing disaster preparedness plans and capacity. Where possible these plans will be prepared with local institutions and partners that are capable of ensuring sustainable and on-going disaster preparedness.

25 The final, detailed choice of the level responsible for adminstrative work should be decided once there is a clear idea of the effort involved. In principle, the ECSU would be the entity to undertake such coordination, although a more comprehensive analysis of the workload is required than can be addressed in this strategy document.

Normally, this will entail coordination with other NGOs working in the area, SACB promoted coordination bodies and OCHA. The specific events to be considered are the regular cholera outbreaks, which occur after the rains in December, flooding in the Juba and Shabelle valleys and drought throughout the country. Preparedness plans should follow ECHO guidelines and make use of SPHERE standards[26].

### 4.7. MANAGING WATER RESOURCES

Integrated Water Resources Management (IWRM) is an approach that aims to ensure the coordinated development of water, land and related resources to optimise economic and social welfare without compromising the sustainability of environmental systems. Some of the key points include:

- There should be recognition that women play a central role in the provision, management and safeguarding of water.
- Water resources should be managed at the lowest appropriate level;
- Water policies should focus on the management of water and not just on the provision of water;
- Governments or administrations should facilitate and enable the sustainable development of water resources, including a regulatory framework;
- Water should be treated as an economic, social and environmental good;

Issues, which require consideration, include:

- Flood management in the Juba and Shabelle Rivers.
- International river basin management in the Juba and Shabelle basins, as well as for the international temporary rivers in northern Somalia.
- Protection for vegetation in the arid zones, to reduce runoff and soil erosion.
- Promotion of rainwater harvesting and groundwater recharge.
- Storage of runoff.
- Planned water source construction in the arid zones to avoid over grazing.
- Monitoring of salinisation in irrigation areas.

To develop conditions for IWRM in the future, it is important to foster a greater understanding of the IWRM issues, the capacity and need for community level IWRM, data collection and policy development at the level of administrations. Any interventions should be closely coordinated with the Somalia Water and Land Information Management project (SWALIM).

## 5. OTHER INTERVENTIONS

A brief summary of water and sanitation projects currently under implementation (October 2003) for which information was provided to the SACB or are EU funded is presented in 0 Rural water projects underway in Somalia. There are also significant urban water investments, financed by the EU, much of which is managed by UNICEF.

In the light of the current, ongoing interventions in the water and sanitation sector as well as interventions prior to 2003, it is clear that INGOs are employing a diverse range of finance agencies from both sides of the Atlantic. There is evidently flexibility in the source of finance due to the multinational characteristics of some NGOs such as Action Contre La Faim who are represented in Spain, UK and USA, among others. This particular multinational characteristic gives them the potential to utilize funding from both Europe and USA. It is recommended that NGOs diversify sources of funding as much as possible in order to respond to the challenge of working in the harsh environment of Somalia. Rural water projects underway in Somalia

[26] McConnan, I (2000) Humanitarian charter and minimum standards in disaster response. (Sphere Project - Oxfam - Oxford).

## Table 8. Water and Sanitation projects implemented during 2003 and other years in Somalia

| REGION / AGENCY | PROJECT DESCRIPTION | START | END | DONOR | REGION | DISTRICTS |
|---|---|---|---|---|---|---|
| ***North West*** | | | | | | |
| Danish Refugee Council | Water Sanitation & Infrastructure Rural Water DRC Somaliland Reintegration and Rehabilitation program | Mar 03 | Mar 04 | Denmark | Waqooyi Galbeed, Sanaag, Togdheer | Erigavo, Gar-Adag, Baladiq,Burao, Hargeisa |
| GRC-2 | Rural water and sanitation | Jun 03 | May 05 | EU | NW Somalia | |
| CARITAS-LUX | Rural water and sanitation | Jun 03 | May 06 | EU | Galbeed, Togheer | |
| COOPI | Rural water and sanitation | Tbc | | EU/ITAL COF | Awdal/Sahil | Gabiley |
| Norwegian Peoples Aid | Rural Water Emergency Public Health | Jan 03a | Dec 03 | Norwegian Govt | Sool | Caynabo,Hudun, Las Anod, Teleh |
| Norwegian Peoples Aid | Emergency Water Programme | Aug 99 | Dec 03 | USAID/OFDA | Sool, Sanaag | Badhan,Dharar, Las Korei, Caynabo, Hudun, Las Anod, Teleh |
| CEFA | Rural development (Rural water and sanitation-approx 50%) | Nov 01 | Oct 03 | EU | Sanaag | |
| CEFA | Sool Emergency Project | Aug 02 | Jul 03 | The Netherlands Government | Sool | |
| Horn Relief | Emergency Water Rehabilitation Programme | Apr 03 | Oct 03 | USAID, OFDA, Norwegian Church Aid | Sanaag | Badhan, Dharar, Erigavo, Las Korei |
| ***North East*** | | | | | | |
| Oxfam | Rural water and sanitation | May 01 | Nov 03 | EU | Bari | |
| Horn Relief | Emergency Water Rehabilitation Programme | Apr 03 | Oct 03 | USAID,OFDA,Norwegian church Aid | Bari | Bosaso, Gardo |
| ***Central and Southern region*** | | | | | | |
| Danish Refugee Council | Water Sanitation & Infrastructure Rural Water DRC Somaliland Reintegration and Rehabilitation program | Mar 03 | Mar 04 | Denmark | Galgadud | |
| Action Contre la Faim | Urban Water, Rural water, Emergency Water and Sanitation and Health Education programme for vulnerable people | Apr 03 | Sep 03 | OFDA | Bakool | Wajid |
| ADRA | Rural water Emergency Rehabilitation of Water Points | May 02 | Apr 03 | USAID/OFDA | Bakool/Gedo | El Barde, Hudur. Rab-Dure, El Waq |
| Concern Worldwide | Rural water, Infrastructure | Jan 03 | Dec 03 | Ireland Aid | Lower Shabelle | Awdheegle, Kurtun Warrey |
| VSF-Suisse | Water Sanitation & Infrastructure, Rural Water, Pastoral Assistance Programme In collaboration with COOPI | Feb 02 | May 04 | ECHO | Gedo | Bardera, Belet Hawa, Bulla Hawa, Burdubo, Dolo, El Waq, Garbahare, Luuq |
| ICRC | Rural water and sanitation | | | | Central Somalia | |
| World Concern International | Water Sanitation & Infrastructure, Rural Water | Oct 03 | Jan 05 | Private Donation | Lower Juba and Middle Juba | Jamame, Jilib |
| CISP-2 | Rural water and sanitation | Apr 01 | Jun 03 | EU | Mudúg | Harar-Dhere |
| CISP-2 | Rural water and sanitation | Apr 01 | Jun 03 | EU | Galgadug | El Dehr |
| SC-UK | Rural water and sanitation | Sept 02 | Aug 04 | EU | Hiran | Belet Weyne |
| INTERSOS | Rural water and sanitation | Dec 01 | Apr 03 | EU | Bakool | |
| INTERSOS | Rural water and sanitation | tbc | | EU/ITAL COF | Mudug/ Galgadug | |
| ***Country wide*** | | | | | | |
| UNICEF | Rural/urban water and sanitation | | | | Countrywide | |

*Note: "tbc" - to be confirmed*

# 6. ALTERNATIVE STRATEGIES

## 6.1. PRINCIPAL ALTERNATIVE STRATEGIES

Five main alternative strategies were considered during the study. These five alternatives are described in Table 9 The alternative strategies. The alternatives range from the option of withdrawing from support to the water and sanitation sector, through a similar strategy to that adopted during rehabilitation, to two alternatives that work through community empowerment, the last of which aims at building on administrative institutions, and finally a sector-wide approach.

**Table 9. The alternative strategies**

| Alternative strategy | Description |
|---|---|
| No further external investment in water and sanitation by EC. | The EC withdraws further support to investment in water supply and sanitation. Available resources are redirected to other areas of development in Somalia. |
| Resource lead investment programme, community managed AOM. | The available EC resources for water and sanitation are invested in water and sanitation infrastructure, which are managed by the user communities. |
| Community managed project cycle. | The available EC resources strengthen communities' capacity to manage investment as well as AOM of water supply and sanitation systems. |
| Community managed project cycle with institutional development | The available EC resources strengthen the capacity of administration institutions to promote and regulate water supply and sanitation, as well as developing communities' capacity to manage investment and AOM of water and sanitation systems. |
| Sector wide approach (SWAP) | EC financial resources channelled through administration institutions which plan, distribute and monitor resources. |

In Table 10 Analysis of alternative strategies, an analysis of these alternative development options is presented which takes into account such aspects as technical, environmental, socio-cultural, economic, institutional and regulatory issues. This analysis also includes a reference to a Sector Wide Approach (SWAP), which, given the distribution and capacity of administrative institutions, is not likely to be a practicable alternative in the near future. However, it would be a target to aim for once effective administration institutions are in place.

**Table 10. Analysis of alternative strategies**

| | Alternative strategies | | | | |
|---|---|---|---|---|---|
| **Issues** | ***No further external investment in water and sanitation by EC.*** | ***Resource lead investment programme, community managed AOM.*** | ***Community managed project cycle.*** | ***Community managed project cycle with institutional development*** | ***Sector Wide Approach (SWAP)*** |
| **Technical** | Drastically reduced rate of investment in water supply and sanitation systems. | Increase in water supply and sanitation systems limited by external finance. | Technical options reflect preference of community, which is better able to manage future investments. | Technical options reflect preference of community, which is better able to manage future investments. | If administration institutions have capacity and motivation to implement a community managed approach: technical options reflect preference of community, which is better able to manage future investments. |
| **Environmental** | Ineffective input to SWALIM, and emergency preparedness. | Input to SWALIM and emergency preparedness dependent on external institutions. | Communities better able to manage environment and respond to emergencies. | Communities better able to manage environment and respond to emergencies. Institutions better able to collect and analyse information. | Institutions are able to collect and analyse information, as well as develop and implement policies, which enable communities to manage their environment and respond to emergencies. |
| **Socio-cultural** | Women and children with continued water collection load and poor health. | Investment may not respond to women's and children's needs. | Investment more likely to meet women's and children's needs. | Investment more likely to meet women's and children's needs. | If administration institutions have capacity and motivation to adopt a gender sensitive approach, both locally and externally sourced investment is more likely to meet women's and children's needs. |
| **Economic** | Fewer opportunities for improved livelihoods and education. | Investment not locally reproducible and no replacement at end of equipment life. | Greater opportunity for sustainable investment and substitution of equipment at end of life. | Greater opportunity for sustainable investment and substitution of equipment at end of life. Administration able to plan, source and channel future investment. | If administration is able to plan, source and channel future investment to standards acceptable to international finance agencies, this is the most likely scenario for long-term sustainability. |
| **Institutional** | Development limited to internal resources. | Development limited to internal resources. | Development limited to internal resources. | More effective institutional development, especially in NE Somalia. | Administration institutions at all levels must be able to plan, raise, manage, administer, monitor and report on investment finance in a transparent fashion. |
| **Regulatory** | Policy development limited by lack of resources. | Policy development limited by lack of resources. | Policy development limited by lack of resources. | Policy and regulatory development, especially in NE Somalia. | Policy and regulation, including administrative, accounting and procurement procedures, already developed and being effectively used. |

Of the first four viable alternatives, at present, the last two were considered the most appropriate to adopt as community management of the project cycle provides the best opportunity for long-term sustainability of infrastructure. In areas where there is potential to develop effective administrations, the strengthening of these institutions will create the opportunity for greater political stability and, in the future, for channelling both local and external resources for investment in water supply and sanitation.

## 6.2. FUTURE SCENARIOS AND IMPACT ON THE STRATEGY

The strategy has to be applicable to a variety of different scenarios, all of which have a significant probability of occurring. The principal factors considered to be relevant are the socio-political situation, which is related to security in communities, and the occurrence of a serious natural disaster such as a widespread drought. These two factors result in six possible scenarios and the possible response to the different scenarios is summarized in Table 11 Future scenarios and their impact on implementation of the strategy. Means of reducing the risk of not being able to implement the strategy due to natural disaster or worsening security are considered in the next section.

**Table 11. Future scenarios and their impact on implementation of the strategy**

| | No significant natural disaster | Serious natural disaster |
|---|---|---|
| *Deterioration in socio-political situation, security problems worsen, numbers of IDPs increase significantly.* | Where possible continue with the proposed strategy. Revise project objectives in light of security situation. If necessary, transfer resources to more secure areas or extend implementation timeframe. | Not possible to undertake proposed strategy, revert to emergency relief operations. |
| *Security continues similar to the present, no significant progress on political stabilization.* | Undertake the proposed strategy, in areas where the preconditions are met, with significant institution building in NE Somalia. | Continue with proposed strategy, revising project objectives to respond to emergency situation where necessary. |
| *Significant progress on political stabilization throughout NE & southern Somalia, security improves.* | Undertake the proposed strategy, in areas where the preconditions are met, with significant institution building in NE and southern Somalia. | Continue with proposed strategy, revising project objectives to strengthen administration institutions response to emergency situation. |

## 6.3. IMPLEMENTATION METHODOLOGIES

The study also considered various implementation methodologies. The two principal alternatives are the number of implementing agencies and whether to work through local partners. The characteristics of the distinct options are considered in Table 12 Analysis of alternative implementation methodologies.

There are considerable advantages in the concept of contracting a single implementation agency throughout the whole of NE and southern Somalia, especially for simplified administration. However, the heterogeneous nature of society in Somalia means that the points considered above are more than outweighed by the advantages of working through agencies which already have a knowledge of their local area and have the opportunity of integrating water and sanitation interventions with existing community-based programmes.

In areas where potential local partners already have an adequate human resource capacity, and have developed some experience, the advantages or working with local partners would far outweigh the potential disadvantages. It creates more opportunities for local capacity building, sustainability and reduces the risk of not being able to effectively implement individual projects because of temporary security problems.

In Somalia, proven methodologies for participative community management of the project cycle include Participatory Integrated Community Development (examples are projects implemented by GTZ) and Participatory Rural Appraisal (implemented by Action Aid in Somaliland). Participative approaches for sanitation should be based on PHAST and CHAST, and could use material and training methods already developed by CARITAS / Swiss Group and used by INGOs such as SC (UK) and Oxfam (GB). This type of approach for water projects should be based on PRA techniques, which are already frequently used, but need additional inputs especially in relation to the technical and lifetime costs of a wider number of options. These methods are further discussed in section 7.3.1. Sustainable capacity enhanced for community management.

Capacity building programmes in administration institutions will require a preliminary participative institutional assessment, with regular reviews, to identify capacity building needs and to recommend methods of implementation. Capacity building could include staff training and development, studies of technical and administrative aspects for policy development, support for reaching agreement on policies and guidelines, distribu-

tion of and training in the use of guidelines and recommended techniques, short-term investment in material, equipment and infrastructure. This is further discussed in section 7.3.2. Local capacity strengthened.

**Table 12. Analysis of alternative implementation methodologies**

| Methodology | Advantages | Disadvantages |
|---|---|---|
| **Single contractor for the whole strategy.** | Simplified programme implementation, administrative tasks past on to contractor. Simplified coordination between the different implementation locations. More efficient use of professional staff and for allocation of resources to policy making. Opportunity to contract highly specialized implementing agency. | Likely to be less responsive to local differences in implementation conditions. Greater risk to continuity of programme from dependence on single contractor. Fewer opportunities for existing implementation agencies working with communities to add-in water and sanitation projects. |
| **Separate implementation agency for each project within the strategy.** | Working through community planning, offers possibility of integrating water and sanitation with the general planning process. Efficiency obtained locally by running parallel projects and sharing management staff. Better coordination at local level with other interventions. Creates opportunity for longer-term understanding of local conditions. | More complex contract administration because of multiple contracts and monitoring system. Separate programme assessment required. Specialists would need to be contracted for specific technical studies. |
| **Implementation agency working with local partners, such as LNGOs.** | Greater opportunity for building initial understanding and trust with communities. Management and community development skills remain on the ground for future interventions. Contributes to sustainable local activities. Temporary security problems less likely to delay project implementation. | Weaker management control over implementation on the ground. More layers of management between the financing agency and field staff could imply the need to strengthen monitoring, reporting and control. |
| **Implementation agency executes directly.** | Potential for more effective project management. Greater control over selection of field staff. More likely to invest in staff development. Local knowledge developed in-house. Greater flexibility of management decisions. | Dispersion of skilled staff on termination of finance. Knowledge not retained locally following project termination. Greater risk of delays to project implementation if security conditions deteriorate. |

# 7. PROPOSED EC RURAL WATER AND SANITATION STRATEGY

This section lays out the objectives and results of the selected strategic option, detailing the expected benefits for users and beneficiaries and the contribution to development in the area. A relation between the overall strategy to the EC Rural Development strategy is developed as well as a link to the SACB strategic framework for water and sanitation.

The detailed logical framework for the strategy is presented in the annexes, along with the logical framework for the EC Rural development and food security strategy and the SACB WSISC strategic framework for coordinated approaches in water and sanitation.

## 7.1. OBJECTIVE OF THE STRATEGY

The proposed strategic approach contributes to meeting the Millennium Development Goals in NE and southern Somalia. The relationship between the EC Rural development and food security strategy (2003) and this approach is presented in the cascaded logical framework contained in the annexes and summarized below, Table 13 Cascaded logical framework - overall objective.

The overall objective of this strategy:

- **"Improved health and sustainable livelihoods of rural and peri-urban households in NE and southern Somalia",**

is also compatible with the overall objective of the SACB strategic framework for coordinated approaches, which covers urban as well as rural and peri-urban areas and includes NW Somalia (Somaliland). The two objectives are compared in the annex.

**Table 13. Cascaded logical framework - overall objective**

| EC RURAL DEVELOPMENT AND FOOD SECURITY STRATEGY | EC RURAL WATER AND SANITATION STRATEGIC APPROACH |
|---|---|
| ***Overall objective*** | |
| Livelihoods of the Somali People are improved through:<br>- Enhanced food security and economic growth;<br>- Strengthened access to basic public and social services, and<br>- Establishment of good governance. | |
| ***Purpose*** | ***Overall objective*** |
| Food security at household level is strengthened through broad based development of agriculture and livestock and through increased access to water of acceptable quality and to sanitation. | Improved health and sustainable livelihoods of rural and peri-urban households in NE and southern Somalia. |

## 7.2. PURPOSE

The proposed purpose of the strategic approach relates principally to Result 2 of the EC Rural development and food security strategy, as indicated in Table 14 Cascaded logical framework - Purpose. However, the strategic approach presented here is limited to the geographic areas of NE and southern Somalia. The achievement of sustainability implies improved water resource management, integrated water resource management is therefore not explicitly included in this purpose but IWRM is clearly highlighted at the level of results. The direct beneficiaries of the strategic approach are those who are most directly involved in water collection, household water and sanitation management - the women and children in rural or peri-urban communities.

The purpose of the strategic approach:

- **"Increased sustainable access to water and sanitation particularly for women and children in rural and peri-urban areas in NE and southern Somalia",**

is compatible with the purpose of the SACB strategic framework (see annex), but focuses on sustainability and access to water and sanitation services. It aims mainly at improving water quality through household water management rather than full protection of individual sources, because of the multiple uses of such sources rarely makes this viable.

**Table 14, Cascaded logical framework - Purpose**

| EC RURAL DEVELOPMENT AND FOOD SECURITY STRATEGY | EC RURAL WATER AND SANITATION STRATEGIC APPROACH |
|---|---|
| ***Results*** | ***Purpose*** |
| 2. Access to water and sanitation increased and water resource management improved. | Increased sustainable access to water and sanitation for women and children in rural and peri-urban, in NE and southern Somalia. |

## 7.3. PRIORITY AREAS - RESULTS

The strategic approach considers four main result areas, summarized in the annexed logical framework and described in more detail below. These four areas relate directly to the ten results identified in the SACB Strategic framework, as indicated Table 15 How the strategic approach relates to the SACB strategic framework results. The following section presents a description of the interventions required to achieve these results. The logical framework in the annex summarizes the objectively verifiable indicators which quantify the results, their monitoring is further discussed in section 7.4. Monitoring, review and assessment.

**Table 15. How the strategic approach relates to the SACB strategic framework results**

| EC RURAL WATER AND SANITATION STRATEGIC APPROACH | SACB WSISC STRATEGIC FRAMEWORK FOR COORDINATED APPROACHES |
|---|---|
| ***Results*** 27 | ***Results*** |
| 1. Sustainable capacity enhanced for community management of:<br>(a) improved hygiene and sanitation practices.<br>(b) investment and AOM in water and sanitation services;<br>(c) the environment and water resources. | R3. Awareness created on hygiene, environmental sanitation and good water usage<br>R10. Emergency preparedness and response improved |
| 2. Local capacity strengthened in:<br>(a) administrative institutions;<br>(b) NGOs;<br>(c) community level institutions (Village Development committees et al). | R6. Emergency preparedness and response improved<br>R8. Institutional and human resources capacity building enhanced<br>R9. Identification, Planning and co-ordination mechanisms put in place |
| 3. Community and household water and sanitation systems installed and functioning sustainably. | R1. Appropriate design and quality construction of WES infrastructure adopted<br>R4. Increased access to quality sanitation services<br>R5. Increased access to quality water services<br>R7. Capital investment in basic services increased |
| 4.Technical and social data collected, processed and disseminated in close co-operation with SWALIM to support:<br>(a) Project identification and design<br>(b) Community managed construction<br>(c) TA to communities from implementing NGOs in construction, AOM and IWRM<br>(d) Effective integrated water resource management implemented at the community level | R 2. Functional information management systems established |

[27] OVIs are given in the logical framework in the annex.

### 7.3.1. Sustainable capacity enhanced for community management

The first result that will be achieved with the implementation of the strategy involves developing the capacity of the target communities to construct, administer, operate and maintain the water supply and sanitation services. The essential aspect of this approach is to ensure the community management of the installations, from the initial stages of project planning.

Although in some more developed countries it is possible to rely on the sustainable management of water supply and sanitation services by the local administration or other third parties, this is unrealistic in Somalia. Even in Puntland the administration suffers from a lack of institutional skills and the resources to sustainably maintain the water and sanitation services. Moreover, the cost of third parties maintaining water or sanitation installations would be much higher than the parallel maintenance which could be implemented by the community. In conclusion, community management is the least cost, most effective method of ensuring sustainable AOM of the services. It is the only viable alternative in Puntland and the target areas of Central and Southern Somalia.

The starting point for community management of water supply and sanitation services (WSS) is fostering a sense of ownership among the participating communities and the individual villages. However it is important to see each step in ensuring community management as embedded in the phases of the Project Cycle Management (PCM).

The second stage of PCM is identification and CM starts at this point. Stakeholder analysis will use Participatory Rural Appraisal (PRA) and other techniques, such as Participatory Integrated Community Development, to identify project needs at the community level, in response to demand. The appraisal will be conducted using methodologies such as[28]:

- A community map – to identify potential sources, demand classified by areas, who lives where in the village.
- Ladders to establish how the project will meet demand.
- Focus group discussions with villagers to analyse potential design options[29].

The community meetings to assess demand should be held in the Somali language or another appropriate language and background information could be obtained from SWALIM to enrich the discussions. A female community worker should also hold a focus group discussion with women of the village while a separate focus group discussion is held with the men, followed by a joint meeting to plan the next steps. The pioneering work of Save the Children in fostering the participation of women and children to discuss the options of water and sanitation could be usefully applied in this context. Baseline information from this process should be fed back into SWALIM and to the local administration for preparation of future activities as well as for programme monitoring purposes.

The process of construction of the water and sanitation facilities should be one of self-help and managed by the community. The community selects the technical option, builds the services, (with TA from the implementing agency) and using self-help they administer, operate and maintain the system. The effective AOM is enhanced as villagers feel that they have been able to truly manage the process, not just act as passive cheap labour and a supplier of local material at no cost so outsiders can build the services.

The sense of ownership fostered by using PRA techniques to assess demand, plan and monitor the project will be clearly perceived. The community will be more willing to assume the task of AOM, as they will have participated in the design, selection of options, construction and at this final stage, will be responsible for AOM.

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[28] The tools briefly mentioned in this section are derived from original PRA handbook published by the Government of Kenya and other authors as well as more recent publications.

[29] The project design will present different options to the community using drawings and models to explain the characteristics of the cost and design. At this stage. it is essential that men, women, rich, poor, literate, illiterate all participate, and the didactical tools have to be to be adjusted to respond to this challenge.

To sum up, the strategic approach is one of developing ownership through radical community management right from the project design through to project hand over and subsequent AOM.

In order to foster the implementation of this focus a needs assessment will be conducted in the first two months of the strategy to determine in which areas it will be necessary to reinforce the knowledge and skills of the implementing agencies. Intensive capacity building will be undertaken immediately thereafter, to ensure that the partners are able to respond to the proposed process of enhancing community ownership and management of projects.

The rangelands, home to 66% of the rural population must be carefully managed in order to provide a sustainable environment for a growing population of nomads and agro-pastoralists. The current population growth rate is approximately 3.7% [30] and the need to meet the requirements of an increasing population places a high demand on Somalia's limited resource base.

The implementation of the strategy in the rangeland areas will emphasize the development of initiatives by rural villages, managed by the villagers themselves, to mitigate the negative effects of potentially damaging, current, agricultural and pastoral practices on the rangeland environment. Furthermore community managed projects to improve environmental practices will be encouraged, focusing on solutions designed, implemented and adopted by the community. Any TA, which is necessary to ensure that the most effective, efficient and sustainable solutions are adopted, will be provided to the communities by the implementing agency.

The development of the community plans will build on the successful experience of GTZ mentioned earlier and will complement the PRA skills used to evaluate community needs so that it is not necessary to employ two different techniques to achieve similar ends. In both cases a community plan is the product.[31]

The skills necessary to ensure adequate application of hygiene and sanitation practices will be acquired through Participatory Hygiene and Sanitation Transformation (PHAST) and Child Hygiene and Sanitation Transformation (CHAST). Both methods encourage stakeholders (men, women and children) to assess their own hygiene and sanitation situation and make the corresponding decisions to improve conditions, which is community management in practice. The course of action adopted by the community to improve practices, supported by TA from the implementing agencies, will contribute towards meeting this first result in the field of sanitation. Such individual household based activities should be supported by wider hygiene knowledge campaigns through the media, schools, women's groups and religious organisations.

A characteristic of the strategy will be an initiative fostered by the implementing agencies to define the type of latrine that is preferable to the rural dwellers. Again the need to communicate the concepts to the people who cannot read or write is high. With low primary school enrolment rates at approximately 16%[32] of children, the proportion of adults with literacy skills is estimated at 22.1% for men and 12% for women.[33] The functionality of the literacy skills should be further classified as the population in general has a limited number of years in primary schooling. As with other training the emphasis will be on the development of appropriate techniques to ensure that adults are able to participate more fully in the uptake of appropriate skills during implementation, without literacy skills.

### 7.3.2. Local capacity strengthened

The successful implementation of the different elements described in this strategy, require adequate implementation capacity in the local institutions at different levels. The broad requirements of a programme for institutional strengthening are similar, although specific institutions will require institutional strengthening restricted to certain areas.

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[30] UNDP (2001) Human Development Report Somalia. (UNDP - Nairobi).

[31] In the case of PRA the final product is a Village Resource Management Plan.

[32] UNDP World Bank Report No 1 Somalia Watching Brief 2003

[33] UNDP Human Development Report 2001

Prior to implementing any institutional strengthening a full needs analysis will be undertaken with the institutions. In addition to the formal collection of data with short questionnaires, a two-day workshop to analyse sector institution training needs will be conducted with representatives of the different interested parties. The workshop will review the skills needed at each level of project implementation, the skills currently available in the institutions and requirements for institutional strengthening.

The needs assessment will identify institutions who can offer training in the areas that are required. Where it is appropriate (for example, when local skills are not available) regional resources will be located to complement those available locally only when it is not possible to locate adequately skilled professionals.

The following table shows the institutions, principal roles in the implementation of the strategy and the requirements of potential institutional strengthening.

**Table 16. Potential institutional strengthening**

| INSTITUTION | ROLE | POTENTIAL TRAINING REQUIREMENTS |
|---|---|---|
| Local administrations, PSAWEN | Institutional coordination<br>Overall oversight of strategy achievements in coordination with strategy/ SACB<br>Providing orientation on sector strategies | Long term and annual planning<br>Project direction and control<br>Organizing and staffing<br>Programme implementation techniques and philosophy<br>Preparation of bids and a transparent process<br>Evaluation of bids |
| NGOs | TA to communities for self-help projects and implementation.<br>PHAST and CHAST, hygiene and sanitation training.<br>Community mobilization | Community training and mobilization, community management techniques.<br>Long-term and annual planning<br>Project direction and control<br>Organization and staffing<br>Financial control and reporting<br>Preparation of bids and evaluation methods |

As can be seen from the table, it is anticipated that a broad range of skills will be required and implementation of the training will follow different techniques according to the characteristics of the target group. However, potential methodologies would be:

a) Participatory training workshops, where a broad range of skills will be transferred to different groups of stakeholders.

b) Focused group analysis and on the job training sessions directed to well defined themes.

c) One to one training sessions for key implementing agency staff as well as PSAWEN or local administrations.

The training requirements respond to the specific roles of each type of institution that will participate in the implementation of the strategy. It is recognized, despite the entrepreneurial spirit in Somalia, experience in the formal bidding to assign service contracts is limited. The capacity strengthening component will develop national, regional and local skills in designing bids, the bidding process, presenting offers and evaluating the proposals.

It is proposed to select service providers following a transparent bidding process that will lay the foundation for a solid trend towards open competition among the specific sector agencies involved in the implementation.

Evidently the evaluation of bids initially will be completed by the project implementation agency in the first instance. Once acceptable transparent policies and guidelines have been adopted, the unit will increasingly involve PSAWEN and the administration institutions in the process of the preparation of bidding documents,

opening the bidding process, reception and evaluation of bids. This initiative is seen as an integral part of the process of institutional strengthening.

### 7.3.3. Household water and sanitation systems installed

The problem analysis recognizes that external finance is not adequate to satisfy all investment needs in water and sanitation services in Somalia. The limited resources should therefore be directed at mobilising additional resources for investment and AOM. A significant part will be contributed directly by the communities, by the owners and by the users of the services. Other investment could come from NGOs and external sources such as the Somali diaspora.[34] Nevertheless, the principal benefit of investment in the short term will be the improvement of access to the services - mainly through the construction of new water supplies and sanitation services.

The first step in the achievement of this result will be the awareness raising and training implemented at the community level as a product of Results 1 and 2. The participatory techniques will allow an assessment of demand based on the expressed will of the community members. In particular, the community members will be well prepared to undertake the next step in the community managed development process where the system to be built will be based on a design selected by the community (perhaps a simple well or a construction equipped with a hand pump).

The project design will be selected by the community, who will also build the systems using self-help methodologies. The partner NGO will provide all the necessary TA to the village in order to ensure that, despite only using local masonry skills, the tank and other structures are built to a high standard. The self-help construction will permit the consolidation of a real sense of ownership among the community members who participate in the project and the long-term effect of adopting this kind of construction technique is the main motive for using this construction methodology. Communities will be responsible for the purchase, transport, storage and use of inputs such as cement, aggregates or hand pumps.

The technical options considered should take account of the range of sanitation and water supply choices for community and household water management aimed at both the community and household levels. The choices of technology will be adapted to the prevailing hydrological, topographical, socio-economic characteristics as well as responding to the community priorities in the water field.

Latrine construction will respond to village demand as an essential step to foster the uptake of appropriate practices and the design will be standardized for different regions, to facilitate the adoption of economies of scale. However, the choice of the design is to be made by the villagers themselves as the effective adoption of improved hygiene and sanitation practices largely depends on the sense of identification the villagers feel with the sanitation solution.

### 7.3.4. Data collected, processed and results disseminated

The major constraint in the planning and effective implementation of water and sanitation projects has been the availability of information and the transformation of the same into documented understanding of the issues involved. Furthermore, it is necessary to develop the data into proposals, policies, guidelines and techniques that will provide a solid base for project design or implementation.

The collection, processing and dissemination of information, in close cooperation with SWALIM, is particularly important given the climatic characteristics of the region. Information related to the hydrographical, hydrological, geographical, sociological and topographical characteristics of the project target area would be collected, processed and disseminated by the aforementioned project. In addition to facilitating access to a comprehensive database, the information, where possible, will be presented in the form required to facilitate project design, such as "layers" in AutoCAD.

This type of information will be used from the initial identification of potential projects through to the necessary inputs for the detailed project design. Furthermore, the data will be essential to support the community-

[34] Breldan Consultancy (1986) (2002) Pilot project – return, reintegration and development in Somalia. (International Organization for Migration - UK).

managed initiative, where rural villages take a protagonist role in the construction of systems and the AOM in the stages after construction. The data will be processed and presented to village meetings in a form that is compatible with the literacy ability and cultural preferences of the villagers. In particular, it will be important to foster the use of images and pictures.

Effective IWRM will require considerable orientation, awareness raising and TA to the rural population about the need to promote the long term, sustainable maintenance and care of the environment. In this field, techniques that will be promoted are sustainable practices to encourage improved natural resource management, particularly with reference to the coverage of vegetation in the river basins. Evidently this is a challenge in the arid and semi-arid environment of North East and Southern Somalia but the long-term benefits for the nomadic, semi-nomadic and sedentary populations of the regions will be significant.

The project implementation agencies will cooperate closely with SWALIM to provide input to the general database as well as undertake intensive local studies to provide more detailed interpretation of the information. Such studies, which should make up part of the project inception phase as well as later impact assessment, should include quantitative surveying of communities, populations, the existence of water sources, their status, and their use at different times of year. Information about water users, their interests and needs should be disaggregated by gender, age, income and livelihood. Collection of information about water sources should follow SACB/UNICEF/FAO-SWALIM guidelines for data collection. Projects should therefore ensure that they have GPS, conductivity, pH equipment, and necessary equipment for measurements such as physical dimensions, flows or water depths. In riverine and coastal areas, projects could collaborate with SWALIM in mapping shallow groundwater to facilitate the selection of a suitable site for future shallow wells.

Detailed studies of knowledge, attitudes and practices related to water use and hygiene practices should be prepared to feed into the design of the PHAST/CHAST and hygiene promotion components. Projects should investigate local alternatives for water supply, sanitation as well as preparing information about a range of technical options with the respective financial (or other) requirements. The alternatives should be presented to the communities in an acceptable manner so that the villagers are able to take an informed decision. If technical options for water supplies do not include a fully protected source (such as a shallow well equipped with a hand pump) methods of household water treatment should also be considered in the training programmes.

In NE Somalia, the capacity building should consider including technical studies of water resources and the potential for effective environmental management. Such studies could include the identification of surface and underground flows in the seasonal rivers, and the potential for use of shallow groundwater in seasonal riverbeds. Since some of the principal rivers in this area are part of international river basins, the studies should include, where possible, estimates of the contributions from upstream and an evaluation of the need for future agreements on the use of these rivers.

In all projects, the implementing agency should ensure that ground water sources do not provide water that is toxic to humans and livestock (see the annex for a discussion of relevant parametres). Analysis of these factors is a complex routine and frequent monitoring is not practicable, consequently, a one-off survey of groundwater in the project area would be adequate. Analysis should be done at an accredited laboratory that participates in an internationally acceptable benchmarking programme to ensure optimum accuracy of the results. Sampling for some of these parameters requires a special expertise, and it may be best to contract out such services.

In contrast, implementing agencies should have capacity for bacteriological water quality monitoring on site, using portable equipment. Monitoring programmes should be designed with a clear purpose in mind. At a minimum, new water sources should be monitored before being put into use especially as unprotected water supplies can easily suffer contamination. Bacteriological analysis is therefore not very informative unless a response is planned and it is often more useful to propose sanitary surveys of water sources which identify risks of contamination and propose methods of reducing those risks. Baseline surveys of existing water sources should therefore include such an assessment and standard forms are available (WHO, 2000).

## 7.4. MONITORING, REVIEW AND ASSESSMENT

The strategic approach requires two levels of monitoring, review and assessment. The first level is that of the component project and the methods of monitoring, review and assessment will be specified in the project proposals. This level will necessarily feed appropriate information into the monitoring, review and assessment of the strategic approach as a whole.

Management will be responsible for providing detailed follow up to individual projects implemented with resources allocated to support the strategic approach. Implementing agencies will be encouraged to standardize planning and monitoring information using Microsoft Project Manager. This will permit the generation of detailed reports covering all aspects of project progress from expenditure through to the achievement of physical targets in a standardized format. The reports will be presented to the European Delegation.

The overall monitoring of the strategic approach, which is the second level, will normally be undertaken on a continuous basis by the ECSU staff. This will principally comprise of consolidation and verification of information from project monitoring reports. Consolidation will be facilitated by employing the software mentioned above, defining standard reporting periods for all projects and specifying the format for presentation of project information. To facilitate sharing results with other partners, technical data should be based on SACB guidelines for the water and sanitation database.

Given the potential for rapid change within Somali society, the need for review of the strategy should be considered as a routine aspect of quarterly reports (especially in light of potential security risks and emergencies). A more detailed review should be undertaken in the third year of implementation, to assess initial impact, reconsider the need for ongoing finance and propose corrective actions, which may be considered necessary to achieve the objectives.

The overall impact of the strategic approach should be assessed towards the end of the five-year period, building on the baseline and impact studies of the individual projects, on disaggregated data from the UNDP's Human Development Report and UNDP/WB watching brief series. This would provide the basis for development of a revised strategy for the water and sanitation sector.

### 7.4.1. Monitoring achievement of the overall objective

The indicator for the overall objective is the Human Development Index for NE and Southern Somalia. The index for the whole country is available in UNDP Human Development Reports, and disaggregated data is utilized during the preparation of that report.

### 7.4.2. Monitoring achievement of the strategic purpose

The principal indicators are the percentage of households with access to improved water sources and the percentage of households with access to improved sanitation by 2008. Both sets of information will be available in the UNDP/WB watching brief geographically disaggregated data.

Project baseline and impact studies should provide information about the target populations, specifically:

- The percentage of men, women, and children utilising latrines.
- The percentage reduction in average cost of water for household consumption in target communities (financial cost and time spent in collecting water).

### 7.4.3. Monitoring the results

The objectively verifiable indicators for the four result themes are listed in the annexed logical framework. The data for these indicators should be presented in the routine project monitoring reports, project impact assessments and institutional capacity assessments. The relevant indicators will be carried over to all the subsidiary project logical frameworks, monitoring matrices, and terms of reference for baseline and impact studies.

Additional indicators for monitoring the effective results related to IWRM information management should be presented in SWALIM monitoring reports and, in relation to IWRM planning in NE Somalia, from reports of the partner institutions.

## 7.5. HANDLING RISKS

### 7.5.1. Preconditions

Based on the analysis of scenarios in section 6, it is clear that the strategy will be almost impossible to implement if the political and security situation deteriorates, and if serious natural disaster causes significant internal displacement of individual populations. Under such a scenario, external assistance will be transferred to relief and rehabilitation. During the design of a specific project, the risk of security and the need to travel freely should be carefully reviewed. Specific means of monitoring the security situation, such as UN security reports, should be specified so that projects may be reviewed and redesigned in the light of security problems.

### 7.5.2. Purpose

Despite successful implementation of the strategy, the desired overall objective may not be achieved if there are serious epidemics (such as cholera and HIV/AIDS) or if market forces and natural disasters prejudice household production. Parallel interventions, such as health and rural livelihood programmes may contribute to reducing the risks of this occurring. Even under the worst conditions the project will significantly contribute to minimising the negative effects of such occurrences.

### 7.5.3. Results

The assumptions related to the achievement of the strategic purpose following achievement of the results are presented in the annexed logical framework. None of these assumptions have the potential for making the overall strategy non-viable. The design of the strategy and its implementation methods minimize the risks resulting from these assumptions.

## 7.6. SUSTAINABILITY

A number social factors contribute to sustainability of rural water supply and sanitation. Water is a fundamental social resource and is basic to the support of human life and health. The strategy focuses on the benefits to the main users at household level - the women and children. Understanding of attitudes and practices related to water is critical to formulation of all activities and their study is included in the proposed project baseline analysis. Potential toxic chemical quality aspects are to be investigated. Community planning, implementation and AOM are requirements for community ownership and long-term sustainability and, as mentioned, gender focused participative techniques such as PHAST, CHAST and PRA will be used to develop community capacity.

Of the economic factors which contribute to sustainability one of the most important is that many communities in Somalia recognize that water has an economic value, especially when it is required for livelihoods. In the more arid areas, households and communities actively manage and conserve available water and recognizing that a reasonable charge is required to ensure sustainable operation and management. Nevertheless, access to the minimum requirements for human survival is often seen as a right - which those with water are obliged to provide. The strategy proposes the application of demand assessment in response to the specific local conditions amongst communities living the semi-arid and arid areas to incorporate the direct identification of local priorities.

The technological solutions selected for water and sanitation are largely those already proven to be sustainable under family or community management in Somalia - shallow wells and berkads, which has a corollary that the use of hand pumps is not likely to be acceptable to most communities. Instead, shallow wells should be constructed to minimize the risk of contamination and enable the installation of hand pumps in the future.

Finally, the environmental factors which will contribute to sustainability are enshrined in the principals of Integrated Water Resource Management. The strategic approach will lay a solid foundation for the application of IWRM concepts at the appropriate level and planning for IWRM will be initiated in Puntland.

## 7.7. INCORPORATING CROSS CUTTING ISSUES

The whole project is targeted at meeting the needs of the principal users of water in the household, women and children. It is recognized that men also have an important role in investing or using water and sanitation infrastructure as well as the operation and maintenance of water supplies, especially where water has to be transported by animal hauled tanker or truck. Gender sensitive PRA techniques will facilitate the participation of women in community planning. Implementing agencies will require both female and male field staff to undertake community development work.

The improved access to water supplies and sanitation, as well as the potential for improvements to environmental sanitation in communities, will create the conditions for improved health. Given the mounting African AIDS/HIV crisis, project implementation should follow SABC guidelines to integrate HIV/AIDS training for their staff.

The expected reduction in cost of water and in time used for water collection will free up resources that could be applied to improve other aspects of a families' livelihoods. The new sources of water will also contribute directly to productive activities such as livestock husbandry and vegetable irrigation.

In the arid and semi-arid pastoral zones, additional water supplies may result in overgrazing and eventually permanent damage to the environment. Where possible, appropriate environmental management guidelines will be followed to mitigate the potential negative effects of new water supplies. The environmental management issues will be raised for consideration during planning at the community level. On the ground data collection will contribute to SWALIM capacity to monitor land degradation around water sources. The sustainability of appropriate solutions to environmental problems will be achieved through the application of community management methodologies.

## 7.8. IMPLEMENTATION STRATEGIES

Three types of intervention are foreseen. The nested log frames summarized in the annex, demonstrate the link between the strategic approach and potential types of project. The first two types of intervention are aimed at District or Regional level, and concentrate on community capacity building resulting in investment in water supply and sanitation infrastructure. Emphasis will be given to working with local partners, especially the district administrations, so as to develop their capacity to fulfil their roles effectively.

In Puntland, a component will provide capacity building support to the Administration as well as PSAWEN in order to develop policies and guidelines for the sector.

### 7.8.1. Roles of stakeholders

Following on from the stakeholder and SWOT analysis, the roles of the principal stakeholders are analysed in Table 17. Analysis of stakeholder roles in the strategic approach. For implementation of the strategy the main stakeholders are the communities, the implementing agencies (NGOs and their partners LNGOs), and the international financing agencies.

**Table 17. Analysis of stakeholder roles in the strategic approach**

| STAKEHOLDER | ROLE IN STRATEGY |
|---|---|
| ***Communities:*** | |
| Pastoral | Implement participatory integral community planning, PHAST and CHAST methodologies. |
| Agro-pastoral | Develop participatory integral community planning, PHAST and CHAST training. Undertake planning and implementation of water source development. Provide investment contributions. Implement AOM of water |

| STAKEHOLDER | ROLE IN STRATEGY |
|---|---|
| ***Communities:*** | |
| | sources and of household sanitation. |
| Sedentary agriculture | Develop participatory integral community planning, PHAST and CHAST training. Undertake planning and implementation of water source development. Provide investment contributions. Implement AOM of water sources and of household sanitation. |
| Peri-urban | Develop participatory integral community planning, PHAST and CHAST training. Implement planning and improvement of water sources. Provide investment contribution. AOM of water sources. AOM of household sanitation. Organise for emergency preparedness, especially cholera control. |
| Administrations e.g. PSAWEN, MPWT | Authorise, facilitate and monitor implementation projects. Participate in capacity building. Prepare and approve plans, policies and guidelines. Collect and process water related information. Prepare and supervise implementation of IWRM plans. |
| Regional and district administrations | Authorise, facilitate and monitor implementation projects at appropriate level. Participate in capacity building. Assist with co-ordination. Prepare and co-ordinate emergency response plans. |
| LNGOs | Develop partnership with implementing agencies, manage and implement projects. Implement Community Management and provide TA to communities to develop/implement community development plans. Undertake surveys. Recruit and train staff. Participate in local co-ordination and establish disaster response capacity where possible. |
| INGOs | Prepare project proposals. Provide TA to LNGOs. Identify and develop local partners. Manage and implement projects. Undertake baseline and impact assessments. Co-ordinate activities locally and through SACB. Undertake data collection for SWALIM and water database, |
| International donors | Provide financial support. Manage and monitor implementation of strategic approach. Co-ordinate through SACB. Continue to support SWALIM and other complementary projects. Continue to provide political support to peace negotiations. |

## 7.9. RESOURCES REQUIRED

Finance provided from the EDF will provide support for the contracting of INGO project management, INGO/LNGO partnerships for project implementation, water source and latrine construction, and international private sector professionals for technical studies, as well as for the purchase of material and equipment.

Projects will also include contributions from:

a) Community investment in time, labour, financial contributions and materials.
b) Administrative personnel time for policy making, monitoring, and planning.

Local contributions to the projects which are unlikely to include significant capacity building of local administrations, such as may be implemented in southern Somalia, include:

a) Community investment in time, labour, financial contributions and materials.
b) Administrative personnel time for monitoring and planning.
c) Administrative personnel for policy making, monitoring, and planning.

### 7.9.1. External finance requirements

An estimate of the external finance requirement is given in the figure below:

| Financial years | NE (m€) | Southern (m€) | Total (m€) |
|---|---|---|---|
| 2004– 2008 | 9.000 | 8.950 | 17.959 |

Existing sources of finance are shown by source in the table below:

| Financial year | EDF (m€) | Co-finance (m€)[35] | Total (m€) |
|---|---|---|---|
| 2004-2005 | 4,000 | 1,200 | 5,200 |

# 8. CONCLUSIONS

a) The overall objective of this strategy is:

- **"Improved health and sustainable livelihoods of rural and peri-urban households in NE and southern Somalia"**

b) This objective nests within the EC Rural development and food security strategy and is compatible with the overall objective of the SACB WSISC strategic framework for coordinated approaches.

c) The potential implementing agencies are the INGOs and other agencies with experience of water and sanitation projects and of Somalia. They are recommended to carry out implementation with partner LNGOs as far as possible.

d) The strategy should be implemented through a call for proposals, for projects aimed at Regional or District based water and sanitation programmes, in addition to capacity building for the Ministry of Works and PSAWEN, both from the Puntland administration.

e) The strategy is based on an investment budget of €4 million during the first two years, reinforced by co-financing of €1.2 million.

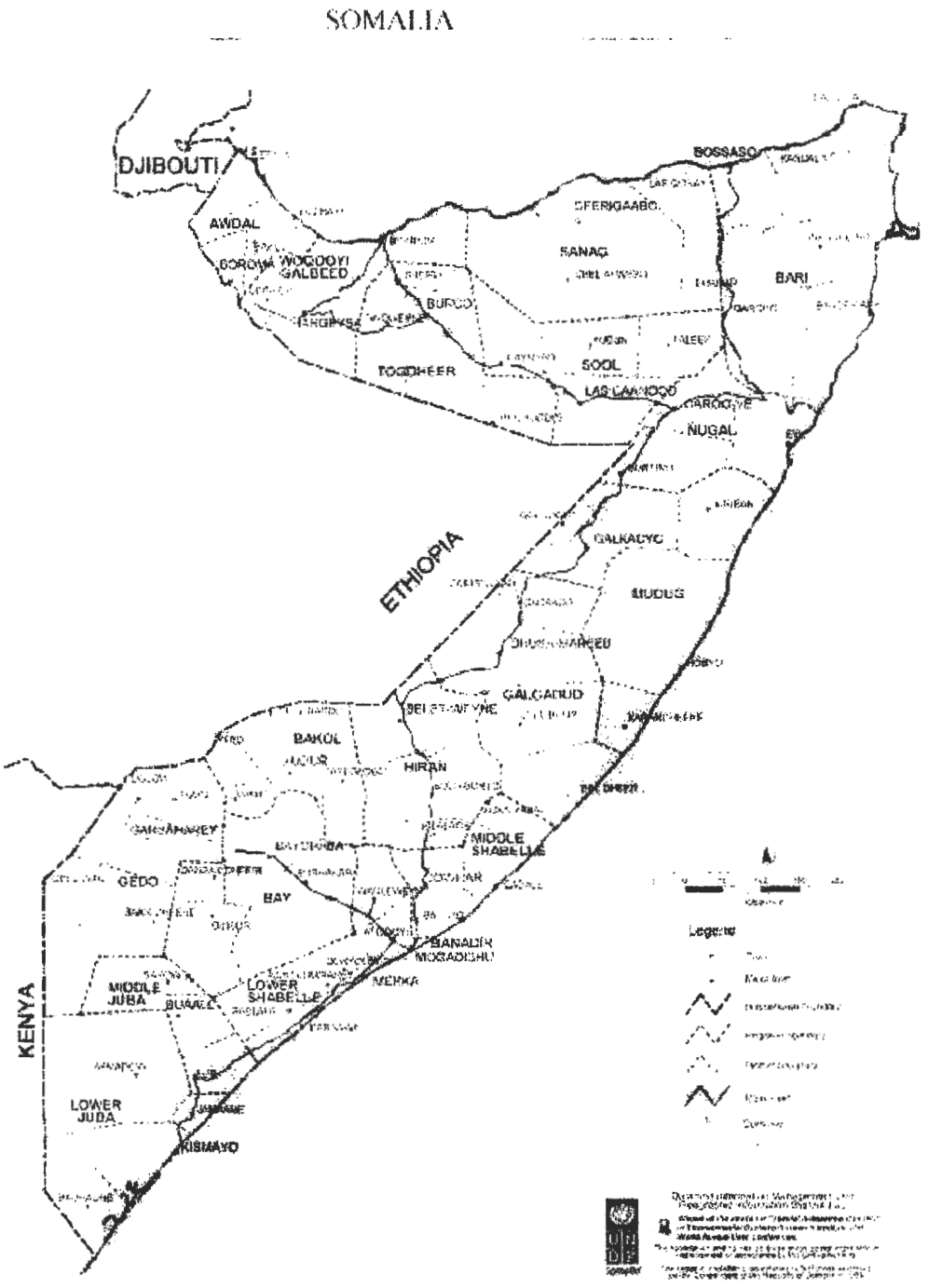
f) To reach the expected target, a further €12.7 million of external finance will be required during the five-year strategic period.

[35] 1.2 m€ is earmarked for the South while the same source has destined 1.5 m€ for Somaliland

# ANNEXES TO VOLUME II:
# PRELIMINARY ASSESSMENT AND STRATEGIC APPROACHES REPORT

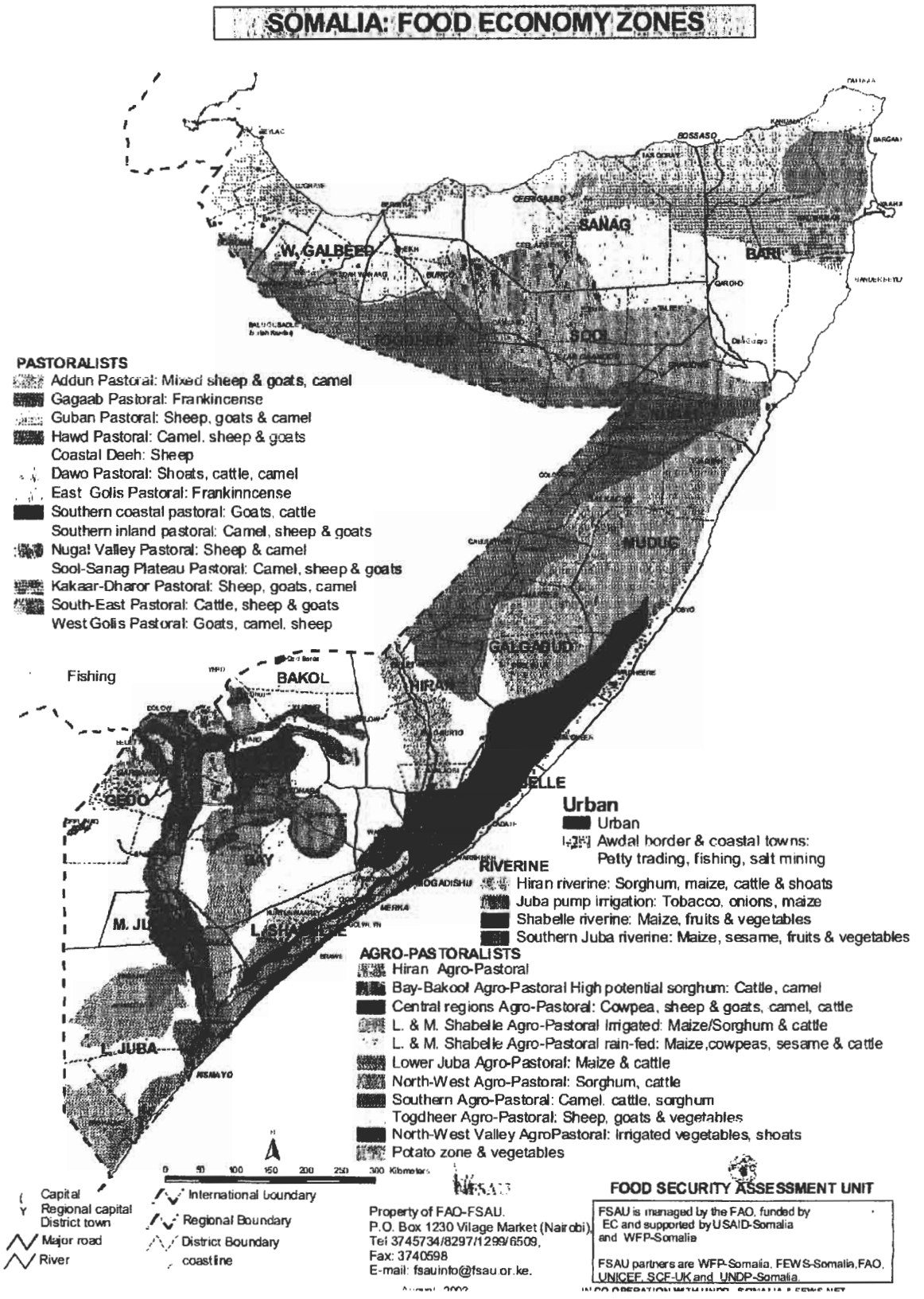
# 1. MAPS OF SOMALIA[1]

## 1.1. TOPONOMIA

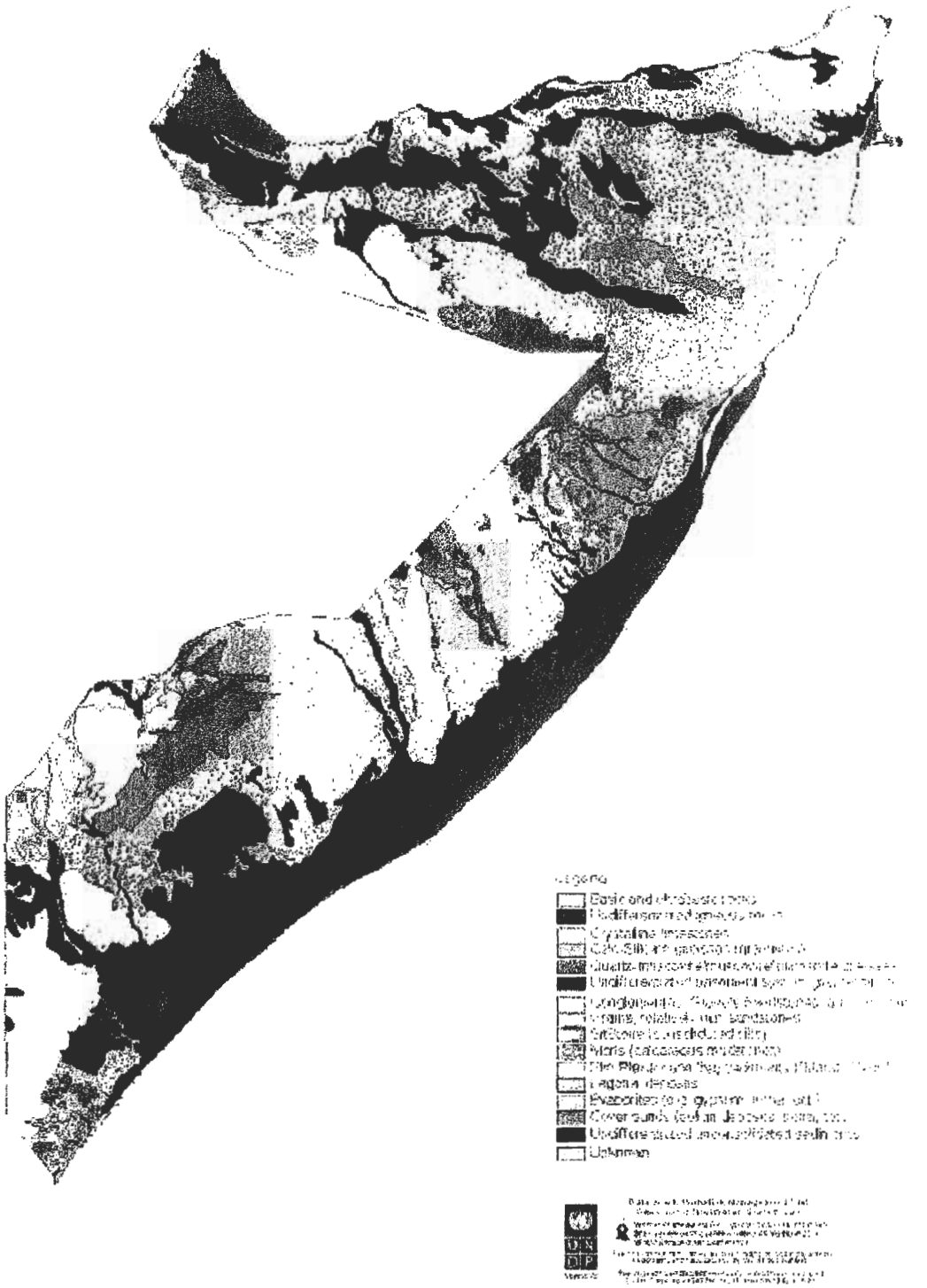



[1] Source EC (2002) SISAS

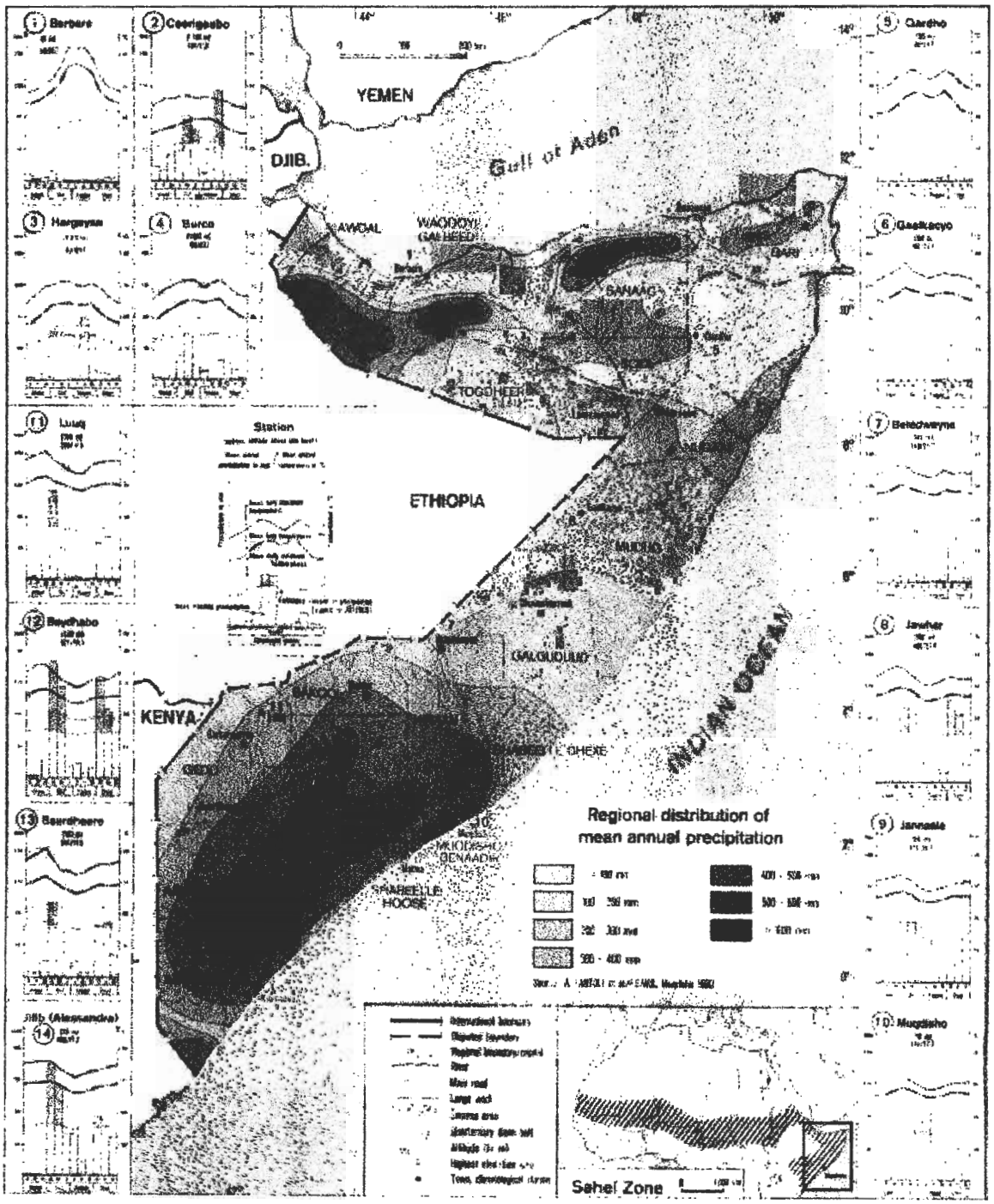
## 1.2. FOOD ECONOMY ZONES



## 1.3. GEOLOGY



## 1.4. RAINFALL DISTRIBUTION



# 2. BACKGROUND INFORMATION ON WATER SUPPLY AND SANITATION

## 2.1. CONSUMPTION

Actual consumption figures for Somalia are not readily available. The baseline studies seen do rarely estimate actual consumption, it is therefore not possible to estimate the impact on water supply investments on total consumption. A UNDOS study in Nugal Region, quoted by ETC (1996), observed the following figures for consumption by humans and livestock.

**Consumption by humans and livestock (Nugal Region)**

| | CONSUMPTION | FREQUENCY | QUANTITY (LITRE) |
|---|---|---|---|
| Cattle | 20-25 l/h/d | daily | 25 |
| Sheep, goats | 1,3 - 1,6 l/h/d | 1 day | 1,6 |
| Camels | 9 - 12 l/h/d | 7d | 80 |
| Human | 5 l/p/d | 1d | 5 |

This figure of 5 l/p/d for human consumption corresponds to rates from other personal sources during the assessment, which gave consumption rates of between 2 and 10 l/p/d. These rates of consumption are considerably lower than those recommended for refugee/IDP populations by the SPHERE guidelines (McConnan, 2000), namely 15 l/p/d, and the PSAWEN Green Paper, namely 20 l/p/d.

Although 20 l/p/d is normally considered a normal rate for estimating water consumption in rural and peri-urban areas, much of this water is for non-drinking purposes. In areas of extreme water shortage, a much smaller quantity of good quality water for drinking and cooking could be considered acceptable.

For areas where shallow ground water or deep borehole water is available the SPHERE standards should be considered a minimum. In arid zones dependent on rainfall catchment or trucking, a much smaller quantity of water could be considered acceptable - providing there is an improvement on the present quantities of water available and there is a concomitant reduction in cost of water.

## 2.2. ALTERNATIVES FOR HOUSEHOLD SANITATION MANAGEMENT

| DESIGN ASPECT | LATRINES INSTALLED | VIP | SANPLAT |
|---|---|---|---|
| Pit cover | Reinforced slab with drop hole. Slab sloping towards drop hole. | Concrete reinforced slab with seat or drop hole. | Prefabricated sanplat for installation with a variety of supports. Normally, sloping away from drop hole to prevent flooding. |
| Drop hole cover | Open | Open to allow air flow through pit and ventilation pipe. | Closed to prevent flies |
| Superstructure | Stone masonry, large dimensions. | Must be enclosed and dark. If no door use spiral form. Usually permanent material. | Owners' choice of material ranging from grass or sacking to permanent materials. |
| Door | Open, door in wealthier households. | Must have door or spiral superstructure. | Owners' choice of material, ranging from open to hinged doors. |
| Roof | Most are open, although in wealthier households are roofed and with window. | Must be roofed. | Owners' choice of material. |
| Ventilation pipe | Sloping narrow, grey plastic pipe. No fly trap. Installed in various positions. | Black, wide, external on sunny side, with fly trap. | Not required. |
| Uses | Toilet and bathing | Toilet only. | Toilet and a bathing facility, if required.. |
| Cost | Similar cost to VIP | More expensive than the sanplat latrine. | Affordable by almost all households, even if sanplat is not subsidized. |
| Potential for long life | A new pit has to be dug and new superstructure constructed when full. | A new pit has to be dug and new superstructure constructed when full. | The sanplat is reusable but it is necessary to dig a new pit. |

## 2.3. POTENTIAL FOR HOUSEHOLD STORAGE AND ROOF CATCHMENT

In Somalia rainwater harvesting is used in many different ways. In some cases, it is used merely to capture enough water during a storm to save a trip or two to the main water source. In this case,only small storage capacity is required, maybe just a few small pots to store enough water for a day or half a day. At the other end of the spectrum the berked systems, have sufficient collection surface area and storage capacity to provide enough water to meet the full needs of the user. Between these two extremes exists a wide variety of different user patterns or regimes.

Given the low annual rainfall for most of the country, rainwater collection is not adequate for all uses. However, the wide dissemination of corrugated iron roofs in NE Somalia does offer the opportunity for collecting high quality water for human consumption at the household. In an average year a typical house could collect sufficient water for drinking purposes only for an average family if storage of about 10 cubic metres was constructed.

## 2.4. NEED FOR BOREHOLE WATER SOURCES

In arid areas, dependent on rainwater catchments there is a need for permanent water sources to provide emergency supplies in dry years and to complement the rainwater catchments during the dry

season. The location and management of such boreholes should be carefully planned to complement the population distribution and to provide strategic sources for livestock migrations. Such water points are sources of income and could be considered as a private investment or private operation.

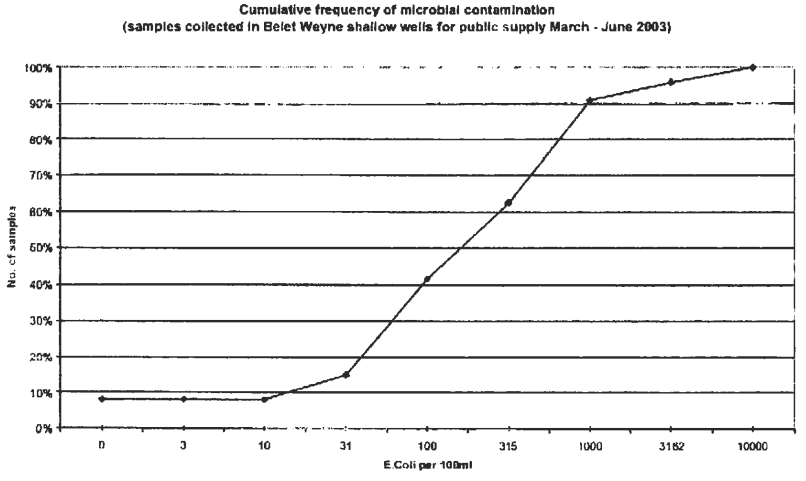
## 2.5. WATER QUALITY CONCERNS

### 2.5.1. Microbiological quality

WHO recommends fecal coliform concentrations for public supplies of zero per 100ml. in rural settings this is difficult to achieve, and SPHERE standards recommend fecal coliform concentrations of less than 10/100ml of water. Such low levels are normally only achievable with water that is from a protected source or that is low in turbidity and disinfected. None of the water sources seen during the assessment have conditions to provide water of such quality, except for deep boreholes with submersible pumps in towns. All the other sources were open to the air, and susceptible to contamination from ropes and buckets, dirt and dust.

For the rural population, the main priority is an adequate provision of water at a convenient location from the home. Microbiological quality is still a secondary requirement. At the same time, in rural areas hand-pumps are not considered viable because of the lack of commercial distribution system for spare parts. The objective of rural water interventions should therefore be to improve the standard of water sources, so as to minimize the risk of faecal contamination, and to prepare for future improvements that would fully protect the source (such as installation of a hand-pump or cover).

In the peri-urban areas of Belet Weyne, water is supplied from about 22 different shallow wells from which water is extracted by motor pump. The range of fecal coliform measurements indicate that 40% of the samples have FC concentrations below 100FC/100ml, but that there are 20% of the samples with FC over 1000 FC/100ml. Shallow wells with motor pumps should be protectable to prevent significant bacteriological contamination.




### 2.5.2. Chemical water quality

For many in the arid and semi-arid areas of Somalia, the greatest water quality concern is that of salinity. Ground water is frequently too saline for drinking.

SPHERE guidelines recommend a Total Dissolved Solids concentration of less than 1.000mg/l (Electrical Conductivity <2000µS/cm). WHO recommend a maximum conductivity of between 1500 - 2000 µS/cm. Typical maximum salt concentrations tolerated by livestock are given in the following table:

**Maximum concentrations tolerated by humans and livestock**

| CONSUMER | EC µS/cm |
|---|---|
| Tolerated humans | 5000 |
| Tolerated cattle, sheep, goats | 8000 |
| Tolerated camels | 12000 |

Similar concentrations are quoted in Faillace, C. & E.R.Faillace (1986) as recommended for water quality upper limits by the WDA for the central rangelands:

| | EC (umhos/cm) |
|---|---|
| Human consumption | 3500 |
| Livestock | 7500 |
| Camels | 10000 |

However, in many regions these values are exceeded by the ground water. For example, in Hiraan and Middle Shabelle the mean EC observed during a survey was 5070 µS/cm, with a standard deviation of 3721 µS/cm.

However, very few analyses appear to have been undertaken for potential toxic substances. Future water projects should screen ground water for the existence of naturally high concentrations of these parameters, to assess whether there is risk of toxicity to consumers.

Analyses afrom Public Health Engineering Laboratory, Dept Civil Eng, University of Nairobi
25 samples

| ITEM | MIN | MAX | OBSERVATGIONS |
|---|---|---|---|
| pH | 6,82 | 8,21 | |
| EC uS/cm | 1050 | 11050 | 9/25 >5000 |
| Fe mg/l | 0,2 | 0,4 | |
| mgF/l | 0,3 | 0,9 | |
| NO3 mg/l | 0 | 0,08 | |
| Cr mg/l | 0 | 0,06 | |
| Cu mg/l | 0 | 0,05 | |

ETC Evaluation of water projects and needs in Hiraan and Middle Shabelle.

WHO water quality guidelines recognise there are a number of sources of naturally occurring chemicals in drinking-water. All natural water contains a range of inorganic and organic chemicals. The former derive from the rocks and soil through which water percolates or over which it flows. The latter derive from the breakdown of plant material or from algae and other microorganisms that grow in the water or on sediments. Most of the naturally occurring chemicals for which guidelines have been derived or that have been considered for guideline derivation are inorganic.

The approach to dealing with naturally occurring chemicals will vary according to the nature of the chemical and the source. For inorganic contaminants that arise from rocks and sediments, it is important to screen possible water sources to determine whether the source is suitable for use or whether it will be necessary to treat the water to remove the contaminants of concern along with microbial contaminants. In some cases, where a number of sources may be available, dilution or blending of the water containing high levels of a contaminant with a water containing much lower levels may achieve the desired result.

A number of the most important chemical contaminants — i.e., those that have been shown to cause adverse health effects as a consequence of exposure through drinking-water — fall into the category of naturally occurring chemicals. Some naturally occurring chemicals have other primary sources and are therefore discussed in other sections of this chapter.

**Guideline values for naturally occurring chemicals that are of health significance in drinking-water (WHO 2000)**

| CHEMICAL | GUIDELINE VALUE[A] (mg/litre) | | REMARKS |
|---|---|---|---|
| Arsenic | 0.01 | (P) | |
| Barium | 0.7 | | |
| Boron | 0.5 | (T) | |
| Chromium | 0.05 | (P) | For total chromium |
| Fluoride | 1.5 | | Volume of water consumed and intake from other sources should be considered when setting national standards |
| Manganese | 0.4 | | C[b] |
| Molybdenum | 0.07 | | |
| Selenium | 0.01 | | |
| Uranium | 0.009 | (P, T) | Only chemical aspects of uranium addressed |

[a] Abbreviations used for provisional guideline values are as follows: P = evidence of a potential hazard but the available information on health effects is limited; T = calculated guideline value is below the level that can be achieved through practical treatment methods, source protection, etc.

[b] C = concentrations of the substance at or below the health-based guideline value may affect the appearance, taste or odour of the water, resulting in consumer complaints.

# 3. COST ANALYSIS OF WATER AND SANITATION

## 3.1. PROJECT OPERATIONAL COST DISTRIBUTION

Based on budgets and observed costs of EC funded projects water and sanitation projects between 1998 and 2003, the distribution of costs are as shown in the following table. These should be used as guideline figures for project proposals. However, proposals should demonstrate that project design is increasing efficiency by reducing logistical and administrative costs as well as personnel costs related to project supervision.

| BUDGET LINE | [illegible] PER [illegible] AVERAGE NO. PER [illegible] | | |
|---|---|---|---|
| Works + equipment | 53 | 44 | 31 |
| Personnel | 38 | 29 | 23 |
| Logistics, travel, other | 23 | 21 | 17 |
| Administration | 6 | 6 | 5 |
| Total | 100 | 100 | 100 |

## 3.2. COST PER BENEFICIARY

For water supply projects, their effectiveness relates to the investment cost per consumer benefited. In the situation in Somalia the beneficiaries are difficult to assess because many are nomadic pastoralists, and much of the water is used for livestock and not for human consumption alone. Most projects seem to have reported populations on the basis of households resident in a village. These figures from EC financed projects between 1995 and 2003 have been used to estimate the range of costs to be expected in Somalia.

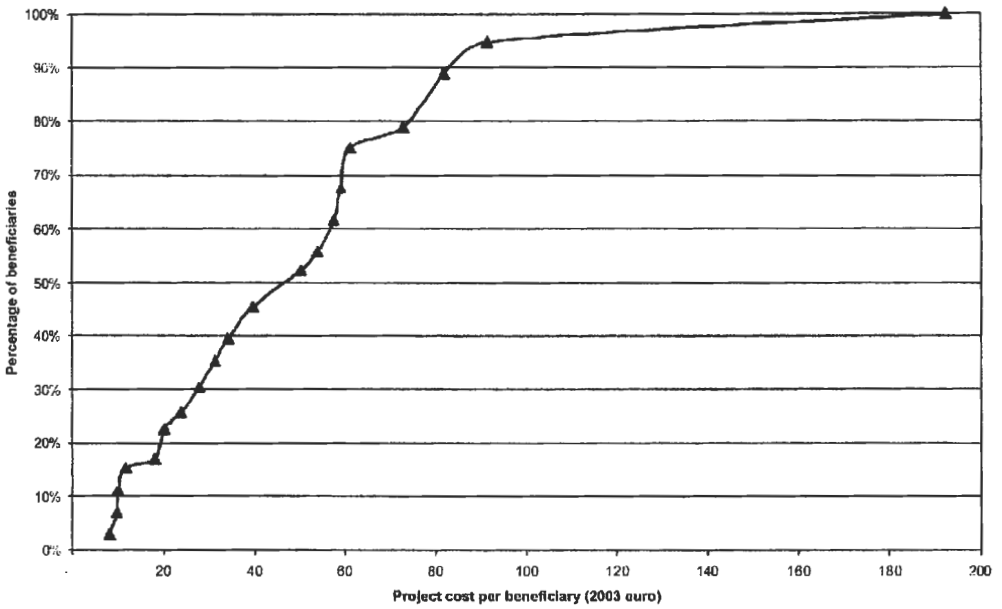
Total project costs, less an allowance for sanitation related activities and adjusted for inflation to 2003 values, have been compared to declared beneficiary numbers. The range for all projects with data is from €8 to €192 per person. For all the projects the mean cost per beneficiary is €48 and the median cost (by project) is €37. This compares to a typical target for development - based rural water programmes of about €35/person (WaterAid 2003).

The target for future water supply proposals should be at or less than the mean for previous projects and should approximate or better the median cost of €37 per beneficiary.

**Range of per capita costs for water supply projects in Somalia, EC funded**

| PROJECT | EURO (2003) PER PERSON |
|---|---|
| Minimum | 8 |
| 20 percentile | 17 |
| Mean | 48 |
| 80 percentile | 64 |
| Maximum | 192 |

**Distribution of costs per person of EC funded water supply projects in Somalia 1994-2003**




## 3.3. UNIT COSTS

### 3.3.1. Water supply

in Somalia, comparison of unit costs for rehabilitation and construction of water sources and supplies is complicated by the wide range of sizes and fluctuations in the cost of construction materials. However, for the more common interventions the following table gives a range of figures for projects in the whole of Somalia (including NW Somalia). In general, construction costs are slightly higher in NE, south and central Somalia than in the NW. However, given greater stability in these latter zones, the costs should become more similar.

The table only provides figures for the most common types of investment. The costs of sand dams, underground dams, small water supply systems, and wars would need to be estimated on an individual basis.

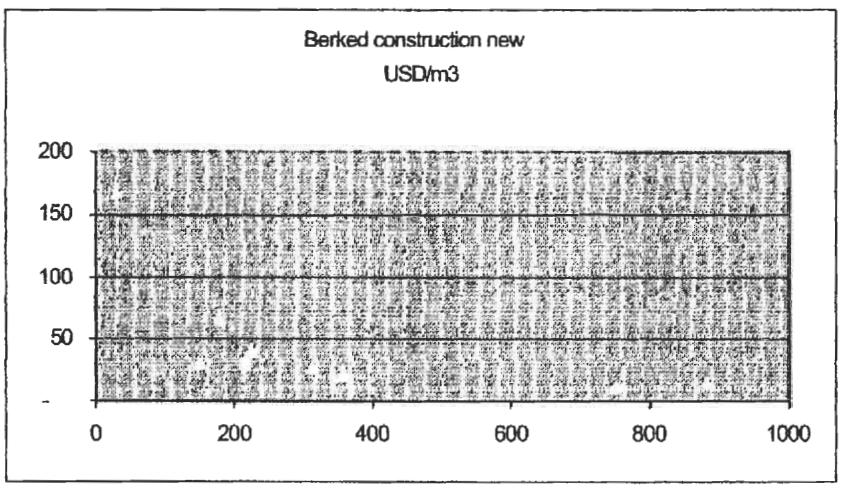
**Observed unit costs in EC financed water projects in Somalia**

| PERCENTILE | BERKED (NEW) | BERKED (REHABILITATION) | SHALLOW WELL (NEW) | SHALLOW WELL (REHABILITATION.) | B/HOLE(NEW /REHAB,80M) |
|---|---|---|---|---|---|
| 20-percentile | 12.235 | 1.800 | 3.530 | 1.960 | 30.400 |
| Median | 12.333 | 2.750 | 3.683 | 2.200 | 47.800 |
| Mean | 12.113 | 3.109 | 4.829 | 3.558 | 47.490 |
| 80-percentile | 14.000 | 4.275 | 4.840 | 4.352 | 62.250 |

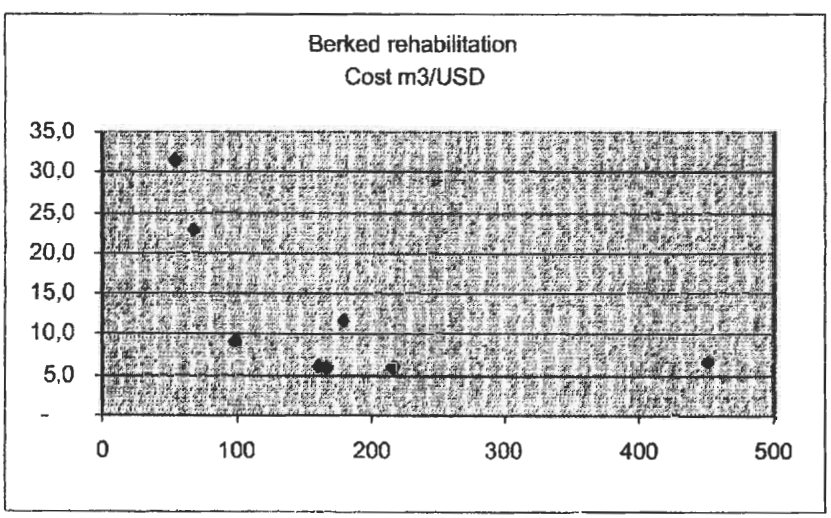
#### *3.3.1.1. Berkad costs v size*

ETC (2003) undertook an evaluation of water projects in northern Somalia, and collected data about the costs of berked construction from both NW Somalia and Bari region in NE Somaliland. The data provides information about the cost of berkeds in these regions, and the impact of size on unit cost of construction and of rehabilitation. The information is presented in the following two graphs. Both graphs demonstrate the cost advantage of construction or rehabilitation of berkeds greater than 200 cubic metres in volume.

**Unit cost of berked construction against total volume (USD/m$^3$ v cubic metres)**




**Unit cost of berked rehabilitation against total volume (USD/m$^3$ v cubic metres)**




### 3.3.2. Water storage capital costs

ETC (1996) undertook a comparison of costs of water tank construction. They concluded that a ferro-cement tank would be the lowest cost option for a 10 cubic metre tank. The values are considerably higher than the factory gate cost of 10m3 polyethylene water tanks of about €1142. However,

this latter price would be considerably increased by transport related charges. These tank may be suitable for household storage or for header tanks from a well or borehole. For long term communal storage, berkeds clearly have a price advantage.

**Comparative cost of water tanks**

| TECHNOLOGY TANK $10M^3$ | ESTIMATED COST EURO (2003) |
|---|---|
| Masonry tank | 3.547 |
| Reinforced concrete | 2.724 |
| Ferro cement | 1.953 |
| Polyethylene | 1.142 |

### 3.3.3. Sanitation

Compared to the number of water projects, few of the rural projects have included the promotion of latrines. The costs are therefore less reliable, but the observed range is indicated in the table below.

**Project costs of manufacture of latrine slabs and of model latrines-**

| PERCENTILE | LATRINE SLAB | MODEL LATRINE |
|---|---|---|
| 20%ile | 32 | 264 |
| Median | 55 | 284 |
| Mean | 67 | 288 |
| 80%ile | 88 | 312 |

Future projects should be designed to offer sanitation alternatives from those that require no purchased material, through those with locally manufactured sanplats (cost about €38), to VIPs, pour flush and bathrooms with masonry superstructures. However, project budgets at the most should include funds for very few demonstration options and for a limited number of sanplats for low income households. Most funds should be aimed at promotion of sanitation and training of local manufacturers and contractors. Most investment in infrastructure should be provided by the owners.

# 4. INVESTMENT NEEDS TO MEET LONG TERM GOALS

## 4.1. POPULATION

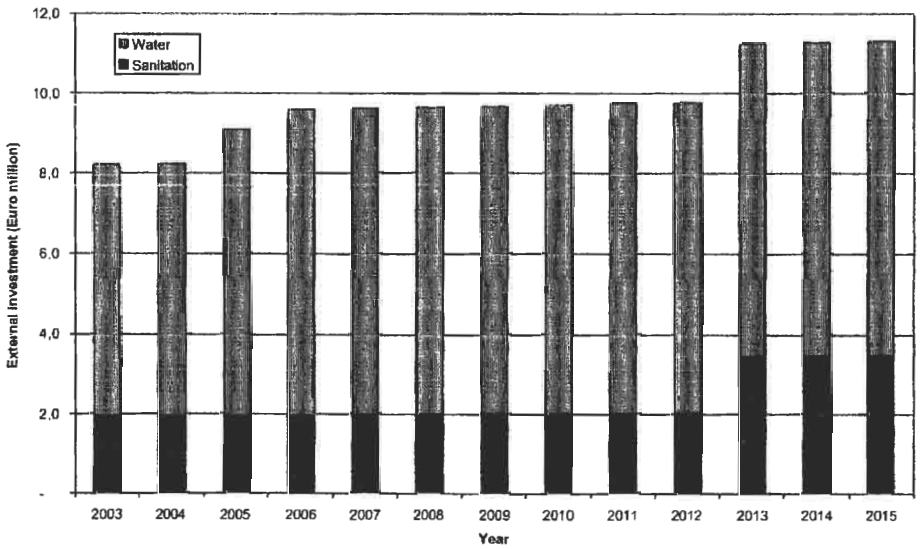
| Region | Total population |
|---|---|
| **NW Somalia** | |
| Galbeed | *553.758* |
| Togdheer | *318.164* |
| Sanaag | *213.135* |
| Sool | *122.825* |
| Awdal | *207.185* |
| ***Sub total*** | ***1.415.067*** |
| **NE Somalia** | |
| Bari | *336.414* |
| Nugal | *132.999* |
| Mudug | *376.184* |
| ***Sub total*** | ***845.597*** |
| **C/S Somalia** | |
| Galgadug | *215.714* |
| Hiran | *301.800* |
| Bakool | *284.245* |
| Bay | *755.344* |
| Gedo | *331.653* |
| M. Juba | *218.590* |
| L. Juba | *317.074* |
| M. Shabelle | *480.323* |
| L. Shabelle | *711.607* |
| Banadir | *922.065* |
| ***Sub total*** | ***4.538.415*** |
| **Somalia Total** | **6.799.079** |

*(UNDP/WB Watching Brief 2003)*

## 4.2. NEED FOR EXTERNAL FINANCE IN NORTHEAST, CENTRAL AND SOUTH SOMALIA

The overall external investment needs have been estimated for northeast, central and south Somalia. These estimates are based on the population in (UNDP/WB Watching Brief 2003), a population growth of 3,7%, and the average coverage for water and sanitation (UNICEF, 2001, End Decade multiple indicator cluster survey). They consider that the aim by 2015 is achievement of the Millennium Development Goals. The unit per capita external investment is conservatively taken as €30 per person, below the average for previous EC financed projects in Somalia. This assumes that with experience implementing agencies will reduce the per capita cost of their programmes and that stability will result in a reduction in excessive logistical and material costs. The estimate allows for new water sources, upgrading of existing sources, as well as initial rehabilitation of existing infrastructure whin it reaches the end of its working life. It does not allow for future rehabilitation and repair, which is assumed will be covered by the users.

**External investment needs rural water and sanitation 2003-2015**




In practice, it is still not possible to work throughout all of NE and southern Somalia. It is therefore proposed to concentrate on those areas where it would be possible to work towards development type activities. These are principally in NE Somalia and in those areas where there already EC financed projects on the ground working with rural communities in south and central Somalia. These criteria presently limit investment activities to about 41% of the total population in NE and Southern Somalia. As new projects will not begin immediately in 2004, a lower percentage has been adopted for that year. The annual investment requirements over the next five years for these areas are therefore as indicated in the following table. The implication of this scenario is that there will be a growing gap between the rate of investment needed to achieve the MDGs and the likely rate of investment. It is clear that the efficiency of future externally financed interventions need to be greatly improved in order to achieve the MDGs.

**Annual requirements for external finance in rural water and sanitation, NE & Southern Somalia**

| YEAR | SANITATION (EURO MILLION) | WATER (EURO MILLION) | TOTAL WATER & SANITATION (EURO MILLION) | EC % INVESTMENT | EC INVESTMENT (EURO MILLION) |
|---|---|---|---|---|---|
| 2004 | 1,9 | 6,3 | 8,2 | 30% | 2,5 |
| 2005 | 1,9 | 7,1 | 9,1 | 41% | 3,7 |
| 2006 | 2,0 | 7,6 | 9,6 | 41% | 3,9 |
| 2007 | 2,0 | 7,7 | 9,6 | 41% | 3,9 |
| 2008 | 2,0 | 7,7 | 9,6 | 41% | 4,0 |
| Total | 9,8 | 36,4 | 46,2 | 39% | 18,0 |

## 4.3. POTENTIAL SOURCES OF FUNDS

In 2002, the total funds allocated to the water, sanitation and infrastructure sector for the whole of Somalia (NW, NE, S and C) was about €17,2 million.

**2002 donor funds to water, sanitation and infrastructure**

| DONOR | AMOUNT US$ |
|---|---|
| USA | $4,222,686 |
| EC | $11,182,372 |
| ECHO | $778,028 |
| Sweden | $42,069 |
| ILO | $608,038 |
| UNHCR | $648,428 |
| UNICEF | $532,000 |
| WFP | $1,014,448 |
| | **$19,028,069** |

Source: SACB, 2003

Of the EC funds approximately €2,9 million were allocated to rural water and sanitation interventions, the rest would have been allocated to urban water and other infrastructures. If the allocation of other donations was distributed in a similar fashion, the total investment in rural water and sanitation would have been of the order of €4,6 million. If this rate of finance were to be continue, it will amount to only about 46% of the overall requirement.

# 5. CONCLUSIONS OF THE WORKSHOPS

## 5.1. GAROWE

### 5.1.1. Group 1 - SWOT analysis of institutions and organisations

**Government and PSAWEN**

| **Strengths**: | **Weaknesses:** |
|---|---|
| Improved security;<br>Improved community participation;<br>Improved infrastructures;<br>Improved local institutions at state and community levels. | Inadequate emergency awareness;<br>Inadequate human resources;<br>Lack of gender balance;<br>Inadequate capacity building;<br>Implementation and empowerment of water policy;<br>Inadequate funding sources. |
| **Opportunities**: | **Threats**: |
| Increased private sector;<br>Continued funding base. | Unpredictable weather conditions;<br>Uncertainty of security conditions. |

**NGOs**

| **Strengths**: | **Weaknesses:** |
|---|---|
| Ability to secure resources;<br>Experience in planned interventions | Inadequate knowledge of local environment;<br>Inadequate funding;<br>Weak coordination;<br>Absence of guiding water supply policies. |
| **Opportunities**: | **Threats**: |
| Continued donor support;<br>Improved security and infrastructure;<br>Improved community participation and contribution;<br>Increased private sector involvement. | Uncertain security situation.<br>Uncertain continued donor support. |

**Private sector**

| **Strengths**: | **Weaknesses:** |
|---|---|
| Willingness;<br>Resource availability | Inadequate human resources;<br>Inadequate capacity building |
| **Opportunities**: | **Threats**: |
| Business opportunities. | Uncertain investment protection rights by law. |

### 5.1.2. Group 2 - Requirements and solutions for capacity building

The workgroup considered the range of institutions and organisations involved in the provision of drinking water and the promotion of sanitation. They include the Ministry of Public Works and Transport, PSAWEN, NGOs and private companies. The group considered that many of the capacity building requirements and needs were common to all the organisations. The members of the group therefore combined the needs and solutions in one single summary.

**Capacity requirements**

- In general, there is a lack of clean, drinkable water.
- There are a number of environmental problems to manage.
- The organisations have a shortage of resources, especially financial resources.
- Present programmes do not include sufficient capacity building.
- There is a lack of coordination from a facilitation body, resulting in:
- Lack of transparency and accountability
- Inadequate information sharing
- Inadequate definition of responsibilities
- Insufficient prioritisation of consumer needs and locations.
- Inadequate hydrogeological surveys.
- Inadequate emergency preparedness.
- Shortage of equipment for both immediate and future needs.
- Equipment for water supply systems are not standardized.

**Proposed solutions**

The principal solution proposed is to establish an integrated body, formed by the Puntland Authorities, the donor organisations and other stakeholders, which would coordinate the development and management of rural and urban water systems and sanitation in Puntland for long term development.

### 5.1.3. Group 3 - objectives, output and methodology of a strategic approach

| OBJECTIVE | OUTPUT | METHODOLOGY |
|---|---|---|
| 1. Increase access to safe drinking water for all. | • Construct and rehabilitate water sources.<br>• Separate water for humans and livestock. | • System designs.<br>• Need assessment.<br>• Formulation.<br>• Implementation.<br>• Monitoring and evaluation. |
| 2. Improve hygiene and sanitation practices. | • Construct new facilities (latrines).<br>• Conduct public awareness campaigns. | • Training PHAST/CHAST<br>• Dissemination of information through mass media. |
| 3. Strengthen water management and sustainability. | • Capacity building.<br>• Decentralisation of water management.<br>• Water policy formulation. | • Technical and financial training.<br>• Government support to water policy. |
| 4. Enhance public/private partnerships. | • Encourage private investment.<br>• Public awareness campaign on privatisation. | • Formulation of attractive contract between Government and private sectors. |
| 5. Improve coordination amongst stakeholders. | • Develop water policy.<br>• Periodic water and sanitation coordination meetings. | • Conduct meetings.<br>• Define rules and responsibilities. |

### 5.1.4. Discussion and conclusions

The discussion was very lively, broached a number of important topics and identified potential new conclusions.

1. The quality of water needed for safe human consumption is different from that tolerated by livestock. However, in the rural areas water for livestock is considered just as high a priority, if not higher, as that for human consumption. It is too expensive to provide high quality water for both livestock and human consumption. The question of how to promote separation of water for human consumption from that for livestock was not, however, resolved.
2. The experience with public - private partnerships in urban settings is proving positive. Differentiation of tariffs provide low price water for a basic supply and the higher tariffs for greater consumption encourages water conservation.
3. The plans for location of new boreholes should be coordinated by PSAWEN, in consultation with local communities and the implementation agencies.
4. Environmental protection and water resource management should be part of the training and consultation process in communities considering new water sources. The selection of the location and technology of new water sources (including berkeds) should consider the impact on pasture and range management. The Ministry of Livestock and Agriculture consider that the construction of new berkeds, without coordination, results in degradation of pasture and should be prohibited as under previous governments. The community consultation process could apply PHAST/CHAST techniques to environmental management.
5. Public - private partnerships in environmental management could be stimulated by awareness training, through the provision of seeds for reforestation, and recruitment of community members to operate nurseries. Some local NGOs already work in environmental management in the rural areas, PSAWEN and INGOs should consider working with them and building on their expertise.
6. The principal incentive to effective environmental management is the long-term economic incentive of profitable livestock production.
7. Plastic, especially plastic bags, are a risk to livestock. Goats eat the bags, sicken and die. Garbage collection, reuse and disposal needs improving or plastic bags should be banned.
8. Private sector provision of water in rural areas is a reality. Price controls are provided by the community, by traditions of sharing, and through market competition mechanisms.
9. The price of water from berkeds and shallow wells are lower than that from boreholes.
10. There is a general lack of specific hydrological and hydrogeological information, the responsibility for collection of data is dispersed and needs clarification.
11. Emergency preparedness includes standardising of equipment. especially for boreholes , so that spare parts and emergency kits can be stocked.
12. Although donors and INGOs have, in the past, been project oriented, a long term strategy is needed to be able to achieve sustainability in water supply. This should be developed in coordination with the responsible government authorities.

## 5.2. SACB, NAIROBI

Following presentations of results from the evaluations and preliminary proposals for a strategic approach, the workshop participants were randomly divided into three working groups. The task of each group was to analyse a specific theme, namely one of the following:

- The administration, operation and maintenance of water supply and sanitation installations.

- The potential and need for capacity building (CB) at the community, private, district or national government level.
- Strategic options

The findings of the working groups are presented in the following paragraphs.

### 5.2.1. Sustainable administration, operation and maintenance of water supply and sanitation

For group no. 1 (see § 5.6 for list of group members), who considered themes related to sustainable administration, operation and maintenance (AOM) of water supply and sanitation installation, the orientation questions provided to facilitate the discussion were:

- What is the role of the community, regional or national government in AOM?
- To what extent will it be necessary to promote community management to ensure sustainable AOM?
- What additional skills are needed at the community, regional or national government to implement sustainable AOM?
- Is it practical to achieve those skill levels-if not, what is the alternative?
- Related to the next orientation point, what is the need for capacity building, briefly analyze.
- Where do the resources come from for AOM?

The groups presented the following conclusions to the plenary.

**Sustainable Administration Operation and Maintenance (AOM)**

| Issues reviewed | Reflections |
|---|---|
| ROLE OF COMMUNITY | PLANNING, IMPLEMENTATION AND MAINTENANCE OF INFRASTRUCTURE. |
| Role of Regional or national government | Provision of legal framework and security where community should work.<br>Providing maintenance resources and human planning capacity.<br>Provision of technical guidelines and policies.<br>Assistance in planning and equitable distribution of projects and resources |
| The extent to which it is possible to promote community management to ensure sustainable AOM | In all project phases.<br>Across the entire spectrum and in all levels of community.<br>Community has to be the organization that ensures AOM especially in areas with no government structure. |
| Additional skills needed at the community, regional or national government to achieve skill levels for sustainable AOM | Capacity building in financial, technical, administration areas – in accordance with the type of system being introduced.<br>Capacity of implementing agency to implement the right methodology and approach. |
| Is it practical to achieve skill levels? Alternative? | Affirmative. Through training *BUT* the willingness to continue maintenance is a challenging task.<br>Alternative may be to use media, and PICD methodology and approach to ensure total involvement of the community and therefore ensure sustainability. |
| Essentials for capacity building | As an ingredient that ensures sustainability.<br>When promoted, capacity building is seen in a broader vision beyond simply AOM but as a specific project need. |
| Source of AOM resources | From communities as a long-term investment activity. |

**Conclusions**

The group agreed on the role of the community in sustainable AOM as that of planning, implementing and maintenance of infrastructure. The project should be based on a needs identification process initiated and managed by the community and involvement of the community in all the project phases. The community was identified as the organization that should ensure sustainable AOM and community management was identified as an approach that should be adopted. It was also identified as an activity that requires clear role definitions for women, children, elders, owners, and private investors.

The group also sited capacity building at community, regional or national level as a primary project input responsible for filling knowledge gaps in financial and technical skills according to the type of project. In particular training, use of media and Participatory Integrated Community Development (PICD) methodology were noted as useful for developing community acceptance, community willingness and community management.

The group indicated that, "If community involvement exists from the initial project phases, then the capacity and willingness will be there and it is easier to build capacity than willingness to own the intervention". Equally so, If the intervention is to be brought down to a user friendly level that is sustainable, the responsibility is on the implementing agency and donor agency to undertake a bottom up approach and an initial investment in human capital.

### 5.2.2. Potential for capacity building.

Working group no. 2 considered themes related to the potential for capacity building. Members of the group are listed in § 5.6. Question to guide the analysis were provided to facilitate the discussion, which were:

- What are the requirements for capacity building at the level of community, regional or national government? (It is suggested that group 1 & 2 coordinate on this point, relating the role and capacity building requirements).
- What experience exists in country in the areas required?
- What are the appropriate methodologies for capacity building with the different groups mentioned in the first point?
- What level of effort is required to achieve the successful transfer of the skills identified?

The conclusions from the group were as follows.

**The Potential for Capacity Building (CB)**

| ISSUES REVIEWED | REFLECTIONS |
|---|---|
| Requirements for capacity building at community, regional or national level | Strategies for capacity building varied according to different hierarchical levels and roles that exist. From the level of government, UN agencies to the local NGOs and the community. At the community level the distinction is made between capacity building strategies for generic issues, technical issues and social issues. |
| Existing experience in-country in the areas of CB requirement. | Experience exists in many sectors:<br>Relief: INGO's interventions in food and water distributions BUT limitations have been observed in emergency preparedness.<br>Rehabilitation: There is increased experience in CB at the local level. However, there are limited CB experiences in technical skills, limited coordination of rehabilitation strategies and low sustainability (encouraged by absence of maintenance materials)<br>Development: CB is limited in scope in development in the area of governance. |
| Appropriate methodologies for capacity building | -Participatory training, training evaluation and M&E upon implementation of interventions.<br>-Education, formal, non-formal and vocational. |

| ISSUES REVIEWED | REFLECTIONS |
|---|---|
| Level of effort required to achieve successful transfer of skills | Involvement and commitment from all stakeholders. |

**Conclusions**

The group identified capacity building as an integral element for the community management and sustainable AOM. More specifically, CB needs be undertaken simultaneously and across all levels of administration to address the following issues:

- Community level: Participatory assessment, AOM, and mobilization.
- LNGOs: Organization expertise and skills transfer
- Private sector: Skill practice
- Regional government: Security and technological knowledge including coordination of services and information generation.
- National government: Security policy, regulation standards, and information generation.

Limited experience in CB was noted in emergency and relief interventions. Experiences of communities taking action in the wake of emergencies long before the arrival of INGO's were noted.

### 5.2.3. Strategic options

Working group no.3 (see § 5.6 for list of group members) considered questions related to possible strategic options, the guiding questions provided to facilitate the discussion were:

- Identify the possible strategic options for the water and sanitation sector. Points to be considered could be:
  - The potential for work in specific areas or is a nationwide focus required- which geographic areas could be considered?
  - Should there be a focus to work with the poorest groups of the population?
  - Should interventions be solely based on need and the availability of water source?
  - To what extent is the focus on community management valid in the country – what regional variations should exist in the approach?
- What would be the objectives of each strategic option?
- What would be the stakeholders during the implementation of each of the options identified?

**Strategic Options**

| ISSUES REVIEWED | REFLECTIONS |
|---|---|
| What is the focus for potential work in water and sanitation in Somali? Is it nationwide? Specific areas? Or geographic region? | The focus area can be determined by dividing the country into three areas on the basis of hydro geological formations, and rainfall patterns namely as North, Central and South Somalia. |
| Comment on the focus to work on the poorest groups of the populations. | The focus ought to be on rural communities. |
| Comments on Interventions, should they be based on need and availability of water source? | Agencies need consider the interplay of interventions on the basis of the rights based approach versus the needs based approach. |
| The validity of a focus on community management in the country. | Community management is a requirement in all implementation phases and management. |
| Objectives of each strategic option | 1 Security<br>2 Community willingness<br>3 Integrated approaches and sectoral coordination |

**Conclusions**

The group proposed that hydrogeological formations, rainfall patterns and possibly economic differences could be a basis for determining focus areas for work in water and sanitation. Emphasis should be on the poor people in both rural and urban areas. The point was made that poor people in the rural areas would not be the ideal targeted beneficiaries for interventions in water and sanitation as they have a smaller number of livestock.

Consultants were advised to develop selection criteria for identifying focus areas. The group referred to the dynamisms of communities which currently exists. Criteria developed to take into account changing community priorities.

## 5.3. FURTHER DISCUSSIONS ON GROUP CONCLUSIONS

Practical work by community on AOM has been in the rehabilitation of broken water systems as opposed to maintenance. The workshop discussed the feasibility of resources for rehabilitation from both the community and a financing agency.

Additional discussions on sustainable AOM cited the replacement of non-functional systems as the issue and not investment on new systems- especially with the state of the current donor input at € 1M/year. An alternative strategy for resource mobilisation was proposed as that of encouraging communities to locally invest their available resources in the replacement of broken systems. The need to set up the capacity for repair of infrastructure in communities was identified as a long term investment in rehabilitation. The donor community should be encouraged to invest in new water and sanitation systems.

It was noted that International NGO's and financing agencies would do well to support communities with TA in the initiative for local investment in repairing of broken systems. The implementing agency would provide institutional support and technical assistance. The main issue is that the repair should be financed by the community.

The approach would do well to borrow from the food security approach whereby farm inputs are distributed to farmers as an initial investment with an understanding that, in return, funds are contributed to ongoing community development. A revolving loan fund is thereafter established from which other local farmers can borrow initial farm inputs and pay them back later at a determined stage.

After the formal presentations, the workshop participants presented the following questions to the EC consultants.

## 5.4. KEY QUESTIONS AND ANSWERS

In this plenary session following the group sessions, the following question were raised:

*Question:* What strategy does the EC have for creating conditions for private sector opportunities?

***Answer:*** **- Offering training to create direct marketing opportunities by contracting and secondly, avoid taking away a business opportunity by providing a service for free where the private sector could have invested.**

*Question:* Where does integration come in? Do the consultants view the rural water and sanitation strategy as generic, integrated or general approach? How is water linked to health and other activities?

***Answer:*** **An integral approach may run the danger of diluting the potential of specific benefits that could be derived from a water and sanitation project.**

*Question:* Environmental management has only been captured in terms of integrated water management. Isn't this a very narrow view?

***Answer:*** **Point noted**

*Question:* Isn't bacteriological contamination more serious than the salinity of water addressed in the presentation?

***Answer:*** **Point noted. However, crocodiles and distance are more important concerns to local populations than bacteria. Household management of water is however an area where bacteriological contamination could be addressed.**

Question: Separate water for human consumption from water for livestock – could the word "separate" be replaced with "match"?

**Answer:** **Livestock and people do not require the same quality of water, therefore the word "separate" has been used, but a less ambiguous wording will be considered.**

*Question:* How can capacity building be directed to nomads, given that the acquired knowledge is portable whereas the water points are static.

***Answer:*** **In this case capacity building should enable nomads not only to manage systems but to be able to identify how to tackle a problem where ever they are.**

*Question:* Have pastoralists been deliberately ignored in the presentation? It is a livelihood that is time tested.

***Answer:*** **The time constraints of the presentation could not allow for delving into this important aspect, which will be taken into account.**

Question: There are dry river beds that receive water during some seasons; can these flood waters from the north be harnessed for use by local populations?

***Answer:*** **The possibility of building sand dams in dry river beds is being investigated. Where there is demand, sand dams are a possible option. The EC has been invited by NGOs to visit sand dam projects in Kitui and interested agencies would be provided with the details to visit the site. (See annexe for a list of six interested workshop participants)**

## 5.5. WORKSHOP CONCLUSIONS

After analysis of issues related to rehabilitation of systems, rehabilitation/repair of existing systems, the workshop concluded the following.

- Community should be encouraged to accumulate resources through the payment of tariffs, for improving system coverage.
- Specific administration operation maintenance should be undertaken by the community using a community managed focus.
- Communities should show the willingness to implement rehabilitation by contributing human and material resources.
- The donor community would be encouraged to support and implement rehabilitation in support of community initiative which would include contribution of resources.
- Donors should be encouraged to facilitate a process of community management whereby communities take the lead in a long-term sustainable rehabilitation and management and improvement in system coverage.

## 5.6. PARTICIPANTS AT THE WORKSHOP AND THEIR CONTACTS

### 5.6.1. Opening panel

| NAME | POSITION | ORGANISATION | EMAIL |
|---|---|---|---|
| Ahmed Mohamed Egal | Minister | Ministry of Public Works | ahmedsaqil@yahoo.com |
| Ali Abdi Aware | Minister | Ministry of Local Government and Rural Development | awaare_17@hotmail.com |

### 5.6.2. Consultant's team

| NAME | POSITION | ORGANISATION | EMAIL |
|---|---|---|---|
| Martin Ede | Team leader | MWH | martaede@acelerate.com |
| Stephen Hugman | Consultant | MWH | ambiserra@mail.telepac.pt |
| Khadra Farah Egal | Consultant | MWH | wawabossaso@hotmail.com |
| Abdullah Ali Ahmed | Facilitator | MWH | |

### 5.6.3. Participants

| NAME | POSITION | ORGANISATION | EMAIL |
|---|---|---|---|
| A. Farah Mahamed | Coordinator | Nugal Youth Organisation (NYO) | buculde97@hotmail.com |
| Abdifulah Mahmoud Afta | Representative | Nugal Youth Organisation | |
| Abdirizak Mohamed | Director Mineral Resources | PSAWEN | burgal201@hotmail.com |
| Abdisalam Mohamed Ali | WFP Mudug | Mudug Region | |
| Abdullahi A. Ahmed | Chairman | Garowe Water Company | |
| Abshir M. Jama | Project coordinator | ADRA Somalia | abshirjama@hotmail.com |
| Ahmed Mohamed Looyan | Director Administration | PSAWEN | |
| Ali Abdullahi Farah | Deputy Chief Officer | PSAWEN | mursalji@hotmail.com<br>mursalji@yahoo.com<br>calimatan@hotmail.com |
| Abdirisaaq Muse Mahoud | Director Development Department | Ministry of Local Government and Rural Development (WHRM) | |
| Ben Odinga | Project Manager | Oxfam-GB | |
| Dahabo Farah Hassan | Education coordinator | Diakonia | diakonia@eikmail.com |
| Dohir Coli Issa | Mayor of Garowe | Garowe Municipality | |
| Dr Said Fibril Arris | Water Resources Department | PSAWEN | |
| Hashim Mohamed Ahmed | Project Engineer, Garowe | UNICEF | hashimow@hotmail.com |
| Hassan M Khalaf | Director General | Ministry of Livestock, Agriculture and Environment | |
| Hersi Hassan Yusuf | Chief Officer, Nugal | PSAWEN | |
| Jama Mohed Yusuf | Accountant | SOSS | jaama66@hotmail.com |
| Khalif Nur Ali | Director General | Ministry of Public Works | khalif52-1@hotmail.com |
| Mahmoud Sheikh Hamud | Chairperson | KAALO | kaaloorg@yahoo.com |
| Mohamed Abdi Musse | Director Water Department | PSAWEN | mcmaxmusse@hotmail.com |
| Mohamed Ismaailya | Director of Animal Health | Ministry of Livestock, Agriculture and Environment | |
| Osman Gureye Karshi | Regional representative | SWS | swsgarowe@yahoo.com |
| Suleyman Mahid Said | Chairman | PUPA | pupanetngo@hotmail.com |

# 6. POTENTIAL IMPLEMENTING AGENCIES

## 6.1. INTERNATIONAL AGENCIES

International NGOs and other implementing agencies with experience in water and sanitation projects in Somalia.

| ORGANISATION | TEL | FAX | EMAIL |
|---|---|---|---|
| ACF | 578231 | 578232 | aicf@africaonline.co.ke |
| ADRA | 4448898 | 4448391 | water@adrasomalia.org |
| CARE | 2718405 | 2718406 | lex@care.or.ke |
| CARITAS Switzerland | 4447267 | 4448571 | admin@caritas-switzerland.org |
| CEFA | 2715713 | 2715713 | pmuthigani@africaonline.co.ke |
| CISP | 2726772 | | Cisp.sp@net2000ke.com |
| Concern World-wide | 4443990 | 4443653 | concern.somalia@concern.net |
| FAO | 4451192-7 | 4451198 | cprint@faonairobi.or.ke |
| FSAU | 3745734 | 2740598 | buzz.sharp@fsau.or.ke |
| German Red Cross | | | grcnbo@gmx.net |
| ICAO | 622785 | 522340 | icaosom@africaonline.co.ke |
| ICRC | 2723963 | 2713731 | Somalie.Nairobi.sok@icrc.org |
| ILO | 4441232 | 4446830 | jconnolly@ilo.org |
| Oxfam GB | 2715003 | 2715095 | ahassan@oxfam.org.uk |
| RRC | 576920 | 576941 | waldo@todays.co.ke |
| SC UK | 575084 | 576760 | e.daloum@scuk.or.ke |
| THW | 802149 | 802921 | Thw.berbera@gmx.net |
| Trocaire | 732038 | 2732753 | nmolony@trocaire.or.ke |
| UNA | 4440660 | 4442314 | nairobi@una.org |
| UNA | 4440660 | 4442314 | Nairobi@una.org |
| UNCHS (Habitat) | 623219 | 624250 | mohamed.el-dioufi@unhabitat.org |
| UNCU - Field Officer | 4448433 | 4448439 | hassan.elhag@undp.org |
| UNHCR | 4442052 | 4444658 | wolken@unhcr.ch |
| UNICEF | 623862 | 520640 | dbooth@unicef.org |
| UNICEF | 623862 | 520640 | cgajsek@unicef.org |
| UNICEF | 623862 | 520640 | rmccarthy@unicef.org |
| UNOPS | 3754150 | 3754157 | deborap@unops.org |
| WFP | 622930 | 622058 | Leo.vandervelden@@wfp.org |
| WHO | 623197 | 623640 | dahir.aden@whosom.unon.org |
| World Vision | 4441777 | 4441706 | girma_begashaw@wvi.org |

## 6.2. LOCAL NGOS

Information about local NGOs may be obtained from the EC sponsored project on civil society in Somalia run by NOVIB and from the NGO consortium. Both organisations' contact details are given in the box.

| | |
|---|---|
| Secretariat<br>Somalia NGO Consortium<br>Tel: 254 20 2717934/43/44<br>Fax: 254 20 2717933/49<br>ngocon@kenyaweb.com | NOVIB<br>Riverview Road<br>Off Ring Road, Westlands<br>PO Box 491<br>00606 Nairobi, Kenya<br>Tel: +254 20 444 4977<br>Fax: +254 20 444 5126<br>Email: info@novibsomalia.org |

www.somali-civilsociety.org

## 6.3. ASSESSMENT OF WOMEN'S GROUPS

| PARTNERS | PROFILE | ASSESSMENT | CONTACT ADDRESS |
|---|---|---|---|
| NAGAAD Women's umbrella organization *(Somaliland)* | A network of women NGO's oriented towards the development of women. It has the objectives to empower women socially. economically and politically at all levels. | Strengths - Gender advocacy skills | Chairperson- Ismahan Abdi/Salan<br>E-mail: nagaad_u@hotmail.com<br>Fax: +253 213 4501/4416,<br>+253 210006 |
| SWORAG Somali women research and action group. *(Somaliland)* | NGO in Hargeisa whose aim is to enhance leadership and encourage networking amongst women's organizations (member of the Naiad organization) | Strengths – good local links, research and gender analytical skills | Chairwoman-Amina Mohamoud Warsame<br>E-mail: sowragaction@hotmail.com<br>Fax: 252 225006/ 252 2523718 |
| WAAPO Women's action for advocacy and progress organization. *(Somaliland)* | Is an NGO to empower the Somaliland women by advocating for their human rights and are a member of the Human rights network of Nagaad and Well Women's " Health Unlimited Project". | Strong advocacy capacity in women's rights and women's health issues. | Chairperson-Kaltun Sh Hassen<br>Can use the NAGGAD contact |
| EAHRW East African Human Rights watch *(Somaliland)* | Is an NGO established by a group of lawyers and professionals who previously worked for the Government, based in Somaliland and committed to equal treatment and respect for all individuals' human rights through research, dissemination, awareness creation, campaigns and advocacy in Somaliland. | Strengths – research skills, in-depth legal knowledge and links with the judiciary | Executive Director-Mohamed Saeed Hersi<br>E-mail:<br>eastafrica_hrwatch@yahoo.com<br><br>Tel: +252-521201 |
| TECHNO-FORMATON *(Central-Hiran)* | A member of a Gender and Human rights working group | Strengths – have good local links in Hiran and consistent participation in SACB sectoral committees. | Director- Sheikh Abdullahi<br>E-mail:<br>abdullahisheikh@yahoo.com |
| CRD Center for research and Dialogue- *(Mogadishu)* | Is an affiliate of WSP, and aims at empowering the Somali community to a peaceful transition by providing them with a neutral avenue to identify issues and get priority response | Strengths – research skills and excellent links in Mogadishu and south central Somalia. | Director of Programs-Jabril Ibrahim Abdulle<br>E-mail: crd@crdsomalia.org<br>jabril@crdsomalia.org<br>www.crdsomalia.org<br>Fax: 25259-32355 |
| SSWC Save Somali Women and Children *(Mogadishu)* | Is an NGO in Mogadishu, working actively towards the empowerment of women and gender equality. The members are very active in Mogadishu and are key UNIFEM partners in other areas such as Peace and security, HIV-AIDS and VAW. | Strengths – strong gender advocacy skills and links to the peace talks and legislature in Mogadishu | Chairlady- Asha Hagi Elmi<br>E-mail: shirdon@iconnect.co.ke<br>Fax: 254 02 3752199 |