



Water Sources Inventory for Central - South Somalia



**Project Report No. W -17
Dec 2009**

Somalia Water and Land Information Management
Ngecha Road, Lake View. P.O Box 30470-00100, Nairobi, Kenya.
Tel +254 020 4000300 - Fax +254 020 4000333,
Email: enquiries@faoswalim.org Website: <http://www.faoswalim.org>.



Disclaimer

The designations employed and the presentation of material in this information product do not imply the expression of any opinion whatsoever on the part of the Food and Agriculture Organization of the United Nations (FAO) and the SWALIM project nor the United Nations Children Fund (UNICEF) concerning the legal status of any country, territory, city or area of its authorities, or concerning the delimitation of its frontiers or boundaries.

This document should be cited as follows:

Muthusi F. M., Mugo M. W., and Gadain H. M. (2009), Water Sources Inventory for Central – South Somalia. Technical Report N^o W-17, FAO-SWALIM (GCP/SOM/048/EC) Project, Nairobi, Kenya

List of Abbreviations

EC	Electrical Conductivity
FAO	United Nations Food and Agriculture Organization
GPS	Global Positioning System
NGO	Non-Governmental Organization
pH	Concentration of the Hydrogen ion [H ⁺]
SWALIM	Somalia Water and Land Information Management
SWIMS	Somalia Water sources Information Management System
TDS	Total Dissolved Solids
UNICEF	United Nations Children's Fund

Somali Climate Seasons

<i>Gu</i>	April to June rainy season
<i>Hagaa</i>	July to September hot and windy season
<i>Deyr</i>	October to November short rainy season
<i>Jilaal</i>	December to March very dry and cool season

Table of Contents

List of Abbreviations	iii
Somali Climate Seasons.....	iv
List of Figures	vii
List of Tables	vii
Acknowledgement	viii
1.0 INTRODUCTION.....	1
1.1 Background and Justification.....	1
1.2 Survey Objectives	2
1.3 Expected Outcomes.....	2
1.4 Purpose of the Report.....	3
2.0 SURVEY PLANNING AND PREPARATION.....	4
2.1 Pre-Survey Activities	4
2.1.1 Planning for the Survey.....	4
2.1.2 Training of Survey Teams.....	4
2.2 Phase I - Mudug, Galgadud, Bay and Bakool Region’s Survey Preparation, Training and Start of Survey	5
2.2.1 Survey Preparation.....	5
2.2.2 Training of Survey Teams.....	6
2.2.3 Community Sensitization	6
2.2.4 Start of Actual Survey	6
2.3 Phase II – Middle Juba and Gedo Region’s Survey Preparation, Training and Start of Survey	6
2.3.1 Survey Preparation.....	6
2.3.2 Training of Survey Teams.....	7
2.3.3 Community Sensitization	7
2.3.4 Start of Actual Survey	8
3.0 SURVEY PROCEDURE.....	9
3.1 Selection of Strategic Water Points	9
3.2 Parameters Monitored in the Water Sources.....	9
3.3 Steps Followed in Data Collection.....	9
3.4 Coordination and Monitoring of the Survey in the Field and Nairobi.....	10
4.0 RESULTS AND ANALYSIS.....	11
4.1 Data Entry	11
4.2 Data Verification and Validation	11
4.3 Data Analysis and Spatial Presentation of Results	11
4.3.1 Spatial Coverage of the Survey.....	12
4.3.2 Distribution of the Strategic Water Sources by Region.....	12
4.3.3 Operational Status of the Water Sources	14
4.3.4 Reliability of Water Sources	15
4.3.5 Current State of Water Sources.....	16
4.3.6 Variation in Water Quality Characteristics.....	17

4.3.7	Variation in Physical Parameters	18
5.0	SURVEY CHALLENGES	20
5.1	Technical Challenges	20
5.2	Logistical Challenges	21
5.3	Other Challenges	21
6.0	CONCLUSIONS AND RECOMMENDATIONS	22
	ANNEXES.....	23
	Annex A.1: Survey Team Members.....	23
	Annex A.2: Field Data Collection Guide.....	24
	Annex A.3: District maps for water sources	28

List of Figures

Figure 1.1: Central - South Regions Coverage by the Survey	3
Figure 4.1: Regional Utilization of Sources by Different Users	13
Figure 4.2: Number of Source Types Utilized by Different Users	13
Figure 4.3: Operational Status of Strategic Point Water Sources Assessed	15
Figure 4.4: Environmental Conditions	17
Figure 4.5: Sanitary Conditions	17
Figure 4.6: Intervention Requirements	17
Figure 4.7: Variation in Shallow Well Depths.....	18
Figure 4.8: Variation in Borehole Depths	19

List of Tables

Table 4.1: Strategic Water Sources Assessed in South-Central Regions of Somalia	12
Table 4.2: Sources utilization by the different users.....	14
Table 4.3: Operational Status per Number of Source Type	15
Table 4.4: Reliability of Water Sources According to the Number of Source Types	16
Table 4.5: Water Quality Parameters of Assessed Water Sources.....	18